"We Like Being Taught"

A Study on Teacher Absenteeism in Papua and West Papua

April 2012

UNCEN – UNIPA – SMERU – BPS – UNICEF

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ACRONYMS

AUSAID	AUSTRALIAN AGENCY FOR INTERNATIONAL DEVELOPMENT
BANKES	*BANTUAN KESEJAHTERAN GURU* (TEACHER SOCIAL WELFARE ASSISTANCE)
BAPPEDA	*BADAN PERENCANAAN DAN PEMBANGUNAN DAERAH* (REGIONAL PLANNING AND DEVELOPMENT AGENCY)
BAPPENAS	*BADAN PERENCANAAN DAN PEMBANGUNAN NASIONAL* (NATIONAL PLANNING AND DEVELOPMENT AGENCY)
BOS	*BANTUAN OPERASIONAL SEKOLAH* (SCHOOL OPERATIONAL ASSISTANCE)
BPS	*BADAN PUSAT STATISTIK* (STATISTICS INDONESIA)
CPNS	*CALON PEGAWAI NEGERI SIPIL* (CANDIDATE PUBLIC CIVIL SERVANT)
CSOS	CIVIL SOCIET ORGANIZATIONS
DIKPORA	*DINAS PENDIDIKAN PEMUDA DAN OLAHRAGA* (EDUCATION YOUTH AND SPORT)
DPRD	*DEWAN PERWAKILAN RAKYAT DAERAH* (PROVINCIAL LEGISLATURE)
EFA	EDUCATION FOR ALL
FGD	FOCUS GROUP DISCUSSION
GOI	GOVERNMENT OF THE REPUBLIC OF INDONESIA
HDI	HUMAN DEVELOPMENT INDEX
ICT	INFORMATION COMMUNICATION TECHNOLOGY
JSS	JUNIOR SECONDARY SCHOOL
KKG	*KERJA KELOMPOK GURU* (TEACHERS' WORKING GROUP)
KKKS	*KERJA KELOMPOK KEPALA SEKOLAH* (PRINCIPALS' WORKING GROUP)
LPMP	*LEMBAGA PENJAMINAN MUTU PENDIDIKAN*(EDUCATIONAL QUALITY ASSURANCE COUNCIL)
MBS	*MANAJEMEN BERBASIS SEKOLAH* (SCHOOL BASED MANAGEMENT)
MDGS	MILLENNIUM DEVELOPMENT GOALS
MGMP	*MUSYAWARAH GURU MATA PELAJARAN* (TEACHERS ASSOCIATION OF SUBJECT TEACHING)
MI	*MADRASAH IBTIYADAH* (ISLAMIC PRIMARY SCHOOL)
MKKS	*MUSYARAWAH KERJA KEPALA SEKOLAH* (SCHOOL PRINCIPALS WORKING ASSOCIATION)
MOHA	MINISTRY OF HOME AFFAIRS
MONEC	MINISTRY OF NATIONAL EDUCATION AND CULTURE (OR, *DEPARTEMEN PENDIDIKAN DAN BUDAYA NASIONA* (DEPDIKBUD)
MORA	MINISTRY OF RELIGIOUS AFFAIRS (OR *DEPARTEMEN AGAMA*, DEBAG)
MSS	MINIMUM SERVICE STANDARDS (OR SPM)
MTS	*MADRASAH TSANAWIYAH* (ISLAMIC JUNIOR SECONDARY SCHOOL)
NER	NATIONAL ENROLMENT RATE
PGRI	*PERSATUAN GURU REPUBLIK INDONESIA* (TEACHERS' ASSOCIATION OF THE REPUBLIC OF INDONESIA)
PNPM	*PROGRAM NASIONAL PEMBERDAYAAN MASYARAKAT* (NATIONAL COMMUNITY EMPOWERMENT PROGRAM)
PNS	*PEGAWAI NEGERI SIPIL* (PUBLIC CIVIL SERVANT)

OTSUS	*OTONOMI KHUSUS* (SPECIAL AUTONOMY)
S1	*SARJANA STRATA 1* (UNDERGRADUATE UNIVERSITY DEGREE)
S2	*SARJANA STRATA 2* (MASTER'S UNIVERSITY DEGREE)
SBM	SCHOOL-BASED MANAGEMENT
SD	*SEKOLAH DASAR* (PRIMARY SCHOOL)
SMERU	INDEPENDENT RESEARCH INSTITUTE OF INDONESIA (SOCIAL MONITORING AND EARLY RESPONSE UNIT)
SPM	*STANDAR PELAYANAN MINIMAL* (OR MSS)
GUGUS	CLUSTERS FOR JUNIOR SECONDARY SCHOOLS AND PRIMARY SCHOOLS
UNCEN	*UNIVERSITAS CENDERAWASIH* (CENDERAWASIH UNIVERSITY JAYAPURA)
UNDP	UNITED NATIONS DEVELOPMENT PROGRAMME
UNICEF	UNITED NATIONS CHILDREN'S FUND
UNIPA	UNIVERSITAS NEGERI PAPUA
USAID	UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

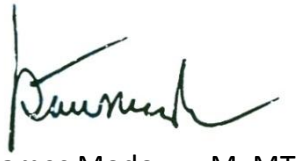
Preface, DIKPORA

The problems of teacher supply, placement and training are serious issues in every district across Papua Province, especially those districts that have very remote geographic locations. Many teachers are reluctant to carry out their duties in remote areas due to various reasons. The main reason that is often expressed by teachers is the lack of adequate infrastructure, including suitable housing and the limited availability of basic needs in remote areas. This is further complicated by weak local government service delivery regarding teacher salary and incentives, teacher promotion and the distribution of rice rations that are often not delivered effectively to the working locations of teachers. Additionally, there is not adequate transportation for reaching remote areas with expensive air transportation often being used as the only form of transport. This situation contributes to low rates of student participation and low competencies of graduates of primary and junior secondary school children from remote areas – especially in the three basic competencies of reading, writing and arithmetic.

The government has attempted various initiatives to address these problems such as providing living incentives based on the level of difficulty of the living location, remote area allowances, scholarships for children, and the provision of teacher housing. Irrespective of these efforts, teacher absenteeism continues everywhere. Remote area schools in fact often do not have teachers working even though they have teachers registered in these schools. This ongoing problem with teachers has not yet been revealed. All of the programmes and policies that have been implemented so far in relation to solving the problem of teacher absenteeism have been based on intuitive knowlwedge and have been sporadic. This research on teacher absenteeism in schools in Papua offers a new path for finding alternatives for resolving these problems with teachers.

This amazing work completed together has produced this research study and I express my infinite thanks to all our partners, namely UNICEF, which led the research, as well as to AusAID for its support, USAID Indonesia, UNCEN, UNIPA, BPS and SMERU Jakarta. This study is the first of its kind in Papua Province and I have very high hopes that the results of this study are followed-up through the implementation of national policies for the Redistribution and Teacher Mapping, the joint decision 5 ministries on September 11, 2011. The results of this study also will be very useful for determining policies for the management of teacher welfare, and increasing teacher qualifications and competencies in accordance wither Ministerial Regulation 50/2007 (Permendiknas 50/2007).

Head of the Office of Education, Youth and Sport
Papua Province, Jayapura, June 2012



James Modouw, M. MT
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Preface, Education Office, West Papua

With the blessing from Almighty God, this research report on elementary school teacher absenteesm in Tanah Papua has been completed by the research team in a timely manner and with excellent quality. This research aims to improve accessibility of children/student to receive quality education services.

This research is the first of its kind in Tanah Papua, which focusses on the analysing and understanding teacher absenteeism in primary schools. The findings of this study are very strategic for the Provincial Education Office in West Papua Province and districts that will be used to develop evidence-based strategies for reducing teacher absenteeism based on needs in the field.

The findings of this reseacrh will strengthen the current approach of the provincial education office for improving education quality through school based management, and it is also in line with the policy of Provincial Education Office of West Papua Province regarding small schools, and strengthening early and multi grade education.

I want to take this opportunity to express my appreciation to all partners involved in this research. My highest appreciation goes to the research team from UNCEN, UNIPA, SMERU and Statistic bureau West Papua, enumerators/students and alumni from almost all universities in Jayapura and Manokwari. They have given their time, effort and thinking to complete this study. Conducting research of this nature has been a very difficult task requiring visits to schools in urban, rural and remote areas in order to gain an accurate understanding of basic education and teacher absenteeism in Tanah Papua. My thanks also to UNICEF which has always provided technical support for the education sector in Tanah Papua and helping to ensure that this research could be completed. I would also like to express thanks to school principals, school committee members, civil society/community members, and education staff at district and school level who participated in this research.

Finally, I hope that the findings of this research can be used to improve the quality of basic education services in our province. We must be optimistic in a better future for the children of Tanah Papua and have faith that this research will improve education services for our children.

May God bless us all.

Manokwari, June 2012
Head of Provincial Education of West Papua

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Preface, UNICEF

Education has been proven the world over to create life-changing opportunities for children. Education ends generational cycles of poverty and disease and provides a foundation for sustainable development. Quality basic education equips children with the knowledge and skills needed to adopt healthy lifestyles, protect themselves from HIV and take an active role in social, economic and political decision-making as they transition to adolescence and adulthood. Educated adults are more likely to have smaller and healthier families, to be informed about appropriate child-rearing practices and to ensure that their children start school on time and ready to learn.

In Indonesia, evidence shows that young people who complete more stages of education increase their earning power when they enter the job market. This has the double potential of reducing the risk of poverty amongst this generation and providing a boost to economic growth.

While Indonesia has almost achieved the Millennium Development Goal for universal primary education, too many children do not continue their journey of learning into junior and secondary school. Nationally, drop-out rates are as high as 20 per cent, and amongst the poorest children as many as one in two will not continue their education beyond primary level.

One critical factor in encouraging children to stay and school, and for parents to maintain their investment in their child's education, is ensuring that there are high quality teachers on hand to deliver that education. Teachers ensure that quality learning takes place in classrooms. Teachers serve as role models for children to develop their attitude, skills and moral and ethical character. When teachers are not present in school, children do not learn, and do not reach their potential. Teachers' absence from school therefore impacts not just upon the education of children today, but the prospects for those children tomorrow.

Understanding the extent of teacher absenteeism and finding solutions to the problem lie at the heart of this study. Under the leadership of local education authorities, supported by AusAID and USAID under a joint programme of assistance to the primary education sector in Papua and West Papua, and specifically through the funding for this study made available from USAID, critical data and knowledge have been generated that will help identify necessary steps to reduce absenteeism, and enhance the value attached to teaching as a profession in Tanah Papua. UNICEF especially wishes to thank the Steering Committee under the leadership of Drs. James Modouw and Leo Benaino and the Research Team made up of SMERU, UNCEN, UNIPA and BPS Provinsi Papua Barat for their invaluable contribution to this important study.

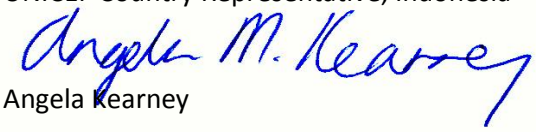
Strengthening school-based management, engaging and involving communities in the work of their local schools, improving monitoring and responding to the needs of teachers, and underlining the role and accountabilities of school principals all emerge from this study as practical ways forward.

The study shows that there is a clear correlation between teacher absenteeism and low attendance rates amongst students – and a further link between school drop-out rates and low levels of literacy amongst communities. Tackling teacher absenteeism is thus vital to the successful development, prosperity and sustainability of communities, districts, and the region.

This study is not just a useful tool for education policy makers and practitioners. It is also an important resource that should encourage development partners to align their own approaches and priorities to those of the local government bodies, using this evidence as a framework for collective responses. In this way, together, we can ensure that teachers are fully valued and supported and that every child enjoys their right to a quality education.

Jakarta, June 2012

UNICEF Country Representative, Indonesia



Angela Kearney

My Right to Learn — *Hakku Untuk Belajar*

Robert Prouty

I do not have to earn
The right to learn.
It's mine.

Aku tidak harus mengupayakan
Hak untuk belajar
Itu adalah milikku.

And if because of faulty laws
And errors of design,
And far too many places where
Still far too many people do not care –

Dan Jika karena hukum yang salah
Dan ada kesalahan perencanaan,
Serta terlalu banyak tempat dimana masih
terlalu banyak orang tidak peduli –

If because of all these things, and more,
For me, the classroom door,
With someone who can teach,
Is still beyond my reach,
Still out of sight,
Those wrongs do not remove my right.

Jika karena semua ini, dan terlebih
Bagiku, bila pintu kelas,
bersama seseorang yang bisa mengajar
masih diluar jangkauanku,
Masih diluar penglihatan,
Semuanya tidak menghapuskan hakku.

So here I am, I too
Am one of you
And by God's grace,
And yours, I'll find my place.

Jadi disini aku, aku juga
salah satu dari kalian
Dan atas berkah Tuhan
Dan berkah kalian, kutemukan tempatku.

We haven't met.
You do not know me yet
And so

Kita belum pernah ketemu
Kalian juga belum tahu aku
Jadi

You don't yet know
That there is much that I can give you
in return,
The future is my name
And all I claim
Is this: my right to learn

Sesungguhnya kalian belum tahu
Bahwa ada banyak yang bisa kuberikan
kembali pada kalian,
Masa depan adalah namaku
Dan yang paling kuinginkan tidak lain: hakku
untuk belajar

The Voices of Tanah Papua's Children[1]

The Aspirations of Papua's Children

- *"I want to be a teacher", male student, Grade 4*
- *"I want to be an official in the human rights office because my big sister works there" Yunita, Grade 4*
- *"I want to be a forestry official", Septina, Grade 4*
- *"I want to be a priest", Maria and Lady, Grade 4*
- *"I want to be a pilot", Brian, Grade 4*
- *"I want to be a PNS official", Armin, Grade 4*
- *"I want to be a soccer player because senior players from Papua are on the national team", Isyak and Leo, Grade 4*
- *"I want to be a doctor", Niken, Grade 4*
- *"I want to be a police woman", female student, Grade 4*

Student Perceptions

- *"We like being taught by Mr… and Miss… because they are diligent and kind to us. Other teachers are lazy to come to school."*
- *"We like mathematics, Indonesian, and natural science and social science, but our teachers never attend school."*
- *"We don't have fixed classroom learning lessons. It depends on the substitute teachers that are present at school."*
- *"The school principal rarely comes to school and if he comes he always goes home quickly, there are only two teachers who diligently come to school."*
- *"My parents always ask me why I have come home early."*
- *"Our parents are always angry when we go home early. But we tell them that we go home early because there is no teacher at school."*
- *"Our parents always complain about teachers not being in school."*
- *"Teachers only come to school to receive their pay."*
- *"Teachers not coming to school makes us lazy to go to school."*
- *"We are happy when teachers are absent so we can play football as much as we wish."*
- *"When teachers are absent, we go home, play football, or just pray."*

[1] Linked with this research, children were asked about their teachers attendance and their attitudes and experiences to school.

EXECUTIVE SUMMARY

I. BACKGROUND

II. Teacher absenteeism is a global phenomenon. It is recognised in numerous studies and policy documents as one of the most critical causes of children's impaired learning and moral growth, and as a barrier to national and international development goals, such as the Millennium Development Goals (MDG) and Education For All (EFA). Absenteeism rates can reach 10% in developed countries and above 40% in developing countries (Kremer et al., 2004, p. 1; Alcazar et al., 2006, p. 1; Halsey and Vegas, 2009). Papuan government, academics and civil society believe that ensuring teacher attendance in Papuan and West Papuan classrooms is vital to improved education service delivery, student learning outcomes, accelerating MDG achievement and improving the currently low Human Development Index (HDI) of Papua and West Papua.

Teacher absenteeism is most damaging to children from poorer rural, indigenous communities where it further limits children's access to quality education services (Rogers et al., 2006, p. 136). Research in Indonesia suggests that rural and remote communities struggle to attract qualified and dedicated teachers, resulting in higher rates of absenteeism relative to other geographic locations.

III. OBJECTIVES

The four objectives of this study were to:

1) *Provide a snapshot of levels of teacher absenteeism at primary school level in Papua and West Papua*
2) *Identify the factors influencing teacher absenteeism*
3) *Identify the extent to which government policies and programmes have been successful in promoting teacher attendance in classrooms, particularly in remote regions of Papua and West Papua, and*
4) *Provide policy recommendations to provincial and district governments that can promote increased levels of teacher attendance in classrooms.*

IV. METHODOLOGY

The definition used for classifying teachers as 'absent' was "teachers or principals who are not in school although they are scheduled or expected to be teaching when visited by survey teams".

Multi-stage stratified sampling with the Probability Proportional to Size (PPS) method was used for selecting a sample of schools for the study. Three types of geographic categories were identified within Papua and West Papua districts to ensure proportional representation of schools: (1) Lowland easy-to-access districts, (2) Lowland hard-to-access

districts, and (3) Highland districts. Sub-district geographies were classified as (1) urban, (2) semi-urban, and (3) rural/isolated.

Data for the school study was collected in late 2011 through unannounced school visits, using school-level questionnaires, individual teacher questionnaires and community questionnaires. The number of principals, teachers, school committee members and community members that were interviewed for this study, by geographic categories, is shown in Table E1.

Table E1. Final sample for the survey, by district geographic category

Geographic categories	# of schools	% of total	Sample Target	% of Sample	Schools Surveyed	% of total	Teachers surveyed	% of teachers surveyed	Community members
Papua									
Hard-to-access Lowland	552	18%	46	18%	42	18%	191	15%	42
Easy-to-access Lowland	915	30%	77	30%	72	30%	482	37%	153
Highland	677	22%	57	22%	45	19%	189	15%	80
Total Papua	**2144**	**69%**	**180**	**69%**	**159**	**67%**	**862**	**67%**	**275**
West Papua									
Hard-to-access Lowland	460	15%	39	15%	38	16%	241	19%	76
Easy-to-access Lowland	495	16%	41	16%	41	17%	193	15%	76
Total West Papua	**955**	**31%**	**80**	**31%**	**73**	**33%**	**434**	**33%**	**152**
TOTAL	**3099**	-	**260**		***238***	-	***1296***	-	***427***

V. KEY FINDINGS AND ANALYSIS

A. LEVELS OF TEACHER ABSENTEEISM AT PRIMARY SCHOOL LEVEL

- The overall rate of ***teacher absenteeism is 33.5% - or one in three teachers across Tanah Papua.*** In West Papua Province the rate was 26% compared to 37% in Papua Province.
- The actual rates of teacher ***absenteeism may be 2%-3% higher*** than those observed in this study given the number of closed schools from those surveyed across different geographic categories (Table E1).
- ***Almost one in four teachers in the easy-to-access lowland schools were absent compared to one in two teachers in the highland districts*** (Table E2).

- ***Rates of teacher absenteeism are highest in the district category where the proportion of out-of-school school-aged children is also the highest*** (almost half of primary school-aged children are not enrolled in school in the highlands).
- Absenteeism is lowest in urban sub-districts and highest in rural/isolated sub-districts.
- Results indicate that the more isolated a school is the higher is the rate of teacher absenteeism.

Table E2. Teacher absenteeism by geographic category

District geographic category

	Easy-to-access		Hard-to-access		Highlands		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Present	528	77,4	237	55,8	97	51,3	862	66,5
Absent	**154**	**22,6**	**188**	**44,2**	**92**	**48,7**	**434**	**33,5**
Total	82	100%	425	100%	189	100%	1296	100%

Pearson $Chi^2(2)=78.0446$, $P<0.001$

Sub-district geographic category

	Urban		Semi-urban		Rural/isolated		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Present	288	80	231	70	343	56,6	862	66,5
Absent	**72**	**20**	**99**	**30**	**263**	**43,4**	**434**	**33,5**
Total	360	100%	330	100%	606	100%	1296	100%

Pearson $Chi^2(2)=57.9338$, $P<0.001$

- ***Excused forms of absence comprise a large proportion of teacher absenteeism***, especially in highland and hard-to-access lowland districts suggesting a 'culture of absenteeism' which could be addressed with improvements to the teacher management policies and system.
- ***More principals are absent from school than teachers.*** However, more principals are absent from school with 'excuse'. Rates of teacher absenteeism also tend to be higher when principals are not in school.
- Even when teachers do attend school, ***the learning of children is very 'sporadic',*** with teachers likely 'rotating' days of absence from the school. This is particularly true in lowland hard-to-access and highland districts.
- Teacher absence in the lowlands is more of a "rotation among teachers for some days off" while ***in the highlands, teacher absence is more of a 'permanent status'.***
- ***One in four teachers in the highlands are often absent for very prolonged periods of time***. As a result, many children are often without teachers for extended periods. Teachers who do attend school often teach multiple classes at the same time or students return home without any learning taking place in schools. ***This contributes to higher student dropout, especially in the highlands***.

B. FACTORS AFFECTING TEACHER ABSENTEEISM

1. SCHOOL AND TEACHER CHARACTERISTICS

- ***Teacher certification has not reduced rates of teacher absenteeism***. In some cases certification programmes have had the reverse effect in the short-term, by taking away teacher's time from school, with no effective teacher substitute system in place.
- ***Having a university degree is associated with lower rates of absenteeism***. In highland districts university-trained teachers were absent in 15% of cases, 'non-diploma' teachers were absent in 50% of cases and 'diploma' teachers were absent in 35% of cases.
- Teacher characteristics that have stronger correlation with absenteeism include gender, type of teacher (i.e. PNS, honorary, contract, volunteer), 'place of origin' (or ethnicity), and current place of residence (i.e. how close a teacher lives to their school).
    - Absenteeism rates for female teachers are much lower than for male teachers. ***Male teachers tend to be more absent across all geographic categories*** with a statistically significant correlation.
    - Absentee levels for permanent/civil servant teachers (PNS) tend to be higher than for other teachers.
    - Indigenous Papuan teachers tend to be absent from school more than non-Papuan teachers. However, in highland districts ethnicity does not emerge as a significant factor for teacher absence. This suggests that other factors such as effective School Based Management (SBM) have a greater influence on teachers attending school.
    - Teachers that live close to the school are more likely to attend on a regular basis.
- ***Teachers in schools that are monitored more frequently***, (often located closer to a government education office and consequently receive more routine monitoring) ***have lower absentee levels***.
- ***Teacher absenteeism impacts small rural-remote schools the most severely due to an effective higher student-teacher ratio for early grade children*** (there are a much larger proportion of students in early grades than higher grades in all rural-remote small schools). ***This is particularly true in highland districts where ratios can be above 1:40.*** It is also in these districts that the pressure on the teachers is the highest in terms of number of students per teacher because of poor teacher distribution that is compounded by high rates of teacher absenteeism.

2. TEACHER WELFARE

- ***The most significant 'welfare' variable that emerges as strongly correlated to teacher absenteeism is the availability of government housing and the quality of housing.***

- The study shows that living conditions (health, access to services and housing) are generally of low quality for teachers in remote areas. Yet, most variables regarding teacher welfare do not appear strongly related to teacher attendance at school.
    - Although the study did find cases where security of teachers was an issue due to various local conflicts, ***security issues did not emerge as having a major impact on teachers attending schools***.
    - Teachers and their families are often sick and those in highland districts have difficulty accessing medical services.
    - In the highlands, where education conditions are lowest and teacher absenteeism is highest, ***very few teachers have access to entertainment and/or communication such as telephones, televisions, DVD players***. Even fewer have a vehicle for transportation.
    - Many teachers in remote areas will travel to urban areas to seek recreation or buy basic supplies for their homes.
- ***Teacher participation in professional development organisations (such as Teacher Working Groups, in school gugus) is positively correlated to teacher attendance in school, except in the highland districts*** Teachers who participate in professional organisations in their sub-districts are much more likely to be attend school compared to teachers who do not. (The most common form of professional organisation participation is in school cluster mechanisms such as teachers working groups - KKG).
- ***Incentive programmes for teachers have a strong positive correlation with teacher attendance in school.*** The most commonly received form of assistance is *lauk pauk* (food assistance) , to which every teacher is entitled irrespective of where they work. However, the study shows that ***incentive programmes may not to be reaching teachers who most need support in rural/isolated and highland areas.***

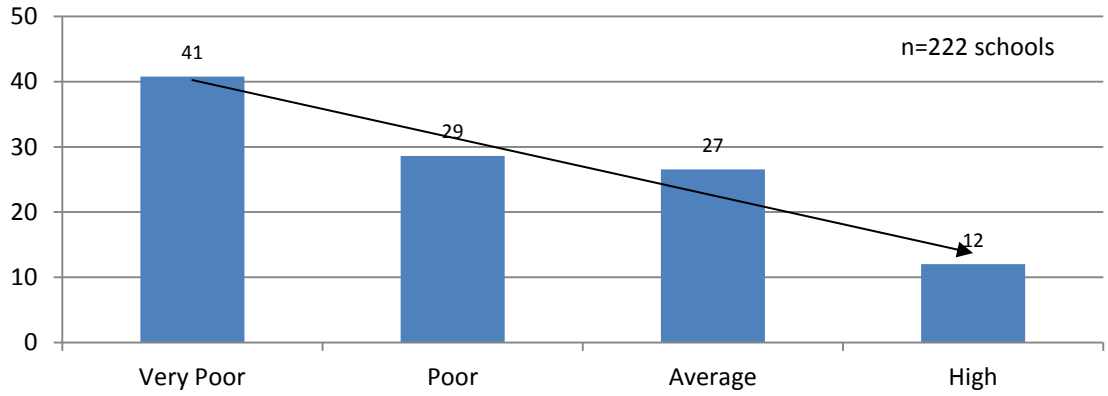
3. SCHOOL LEVEL

- Effective School Based Management (SBM) has a positive impact on teacher attendance in schools. ***Where SBM is applied effectively, the rate of teacher absenteeism is only about 12%***, which is considered to be an acceptable threshold level. This positive relationship is consistent across all geographic categories (Figure E1) using all methods of analysis in this study (index analysis, regression analysis and case study evidence). However, only a small proportion of schools across Papua and West Papua effectively apply SBM.
    - ***Teacher absenteeism is strongly related with the presence of teacher attendance books.***
    - Effectively applying single variables related to SBM is not sufficient to reducing teacher absenteeism (or improving education quality in schools). When analysing a range of single SBM variables, the relationship to teacher absenteeism is not significant. This suggests

that for SBM to be effective, all its elements - transparency, school accountability toward communities, community monitoring of schools, community participation in school decision-making processes, and improved teaching and learning support for the classroom - all need to be implemented as a 'full package'.

- ***Teacher absenteeism is strongly related with the fact that half the principals are not present in school*** (one in two principals are not in school). This is particularly high in highland districts where 7 out of 10 principals are not in school and where the rate of teacher absenteeism is also the highest.
- ***Schools that have good principal leadership have been able to reduce teacher absenteeism*** and also improve the quality of school management and leadership in their schools.
- ***Where communities are involved in school management processes including monitoring of schools the rates of teacher absenteeism are much lower*** compared to schools in which communities are not as involved in school management.

Figure E1. Absenteeism rate by SBM Index (Percentage)



- School infrastructure appears to be helpful in promoting teacher attendance. ***In schools with high quality infrastructure, teacher absenteeism is only about 11%***. Regression analysis confirmed it is positively correlated to teacher attendance, but had less of an impact than effective SBM. ***The quality of school infrastructure thus seems important but it is more an indirect determinant factor that itself is dependant on the quality of school management.***
    - A larger proportion of schools in Papua and West Papua have a low quality of infrastructure than high quality infrastructure.
    - Most schools in remote areas lack infrastructure such as electricity, and computers, and are generally in poor condition.
- ***Most sanctions applied by schools toward teachers are very 'light' and are typically oral or written warnings***. Oral warnings are generally given irrespective of the form of violation made by a teacher. The most common reasons for getting a warning are 'teachers arriving late to school' or 'being absent from school'. Only a small number of schools have ever delayed teacher payment or fired teachers. As a result, government ***efforts to promote better***

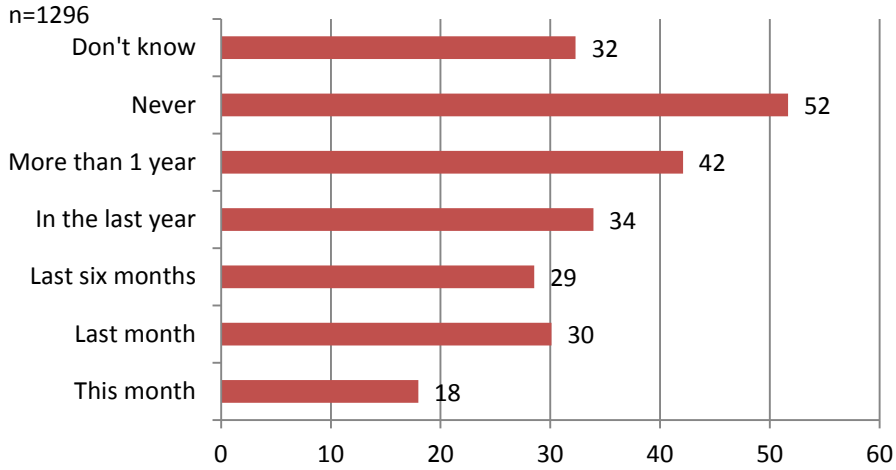
discipline in schools through a stronger sanction system have been hampered by the lack of will to enforce them.

- A small number of schools have applied an effective mix of sanctions and incentives which, together with effective community participation, has led to very low rates of teacher absence.

4. GOVERNMENT MONITORING AND REGULATION

Government monitoring of schools is very infrequent. There is reportedly lack of funding, staff and operational equipment to conduct monitoring considering long distances and difficult access to many schools. ***Teacher absenteeism is strongly related to the frequency of monitoring.*** Schools that have been monitored more recently tend to experience lower rates of absenteeism (Figure E2). The frequency of school monitoring is also affected by multipled factors such as the location of the school, distance to the road and distance to government education offices. Nevertheless, ***government oversight is important to reduce teacher absenteeism***.

Figure E2. Frequency of monitoring and % absenteeism rate



- At the sub-district level, ***most regions surveyed do not have functioning sub-district offices that can help to monitor and support schools***. This problem springs from administrative reforms following decentralization which began with regulatory reforms in 1999 and was made official through constitutional ammendments in 2002 which reduced the public administration from five to three tiers of government (the two tiers removed inlcuded 'village' and 'sub-district'). In Papua and West Papua, where the distance from district capitals to schools can be over 100 kilometres, this reform is proving prohibitive in supporting rural-remote schools with effective monitoring structures. As a result, the administrative capacity of local governments to support remote schools is limited.

- Few regulations exist at local government level to support teacher attendance at school. This is even in the case of Civil Servant regulations that outline sanctions for those who fail to complete their duties effectively.
- A range of incentives have been attempted by governments together with efforts to improve teacher welfare. This suggests that much of the thinking in Papua and West Papua remains tied to the idea that improving teacher welfare, competency and 'moral character' are the 'most important' issues to focus on – i.e., an approach that focuses on individual teacher characteristics rather than ***strengthening teacher management through local governance and administrative systems***.
- Local government policies appear to have had little impact on reducing teacher absenteeism. In fact, in several cases local government efforts to certify teachers through distance learning programmes appears to have contributed to teacher absenteeism in the short term, because no effective teacher replacement/substitution system is in place.
- ***Incentive programmes for teachers have a strong positive correlation with teacher attendance in school***. The most commonly received forms of assistance are those related to teacher welfare and *lauk pauk* (food assistance) – to which every teacher is entitled irrespective of where they work. However, the study shows that only a small proportion of teachers actually receive incentives for working in remote/rural areas. As a result, government incentive programmes appear not to be reaching teachers who most need support to work in remote areas.
- Teacher recruitment and promotion systems remain weak and unable to effectively service teachers in remote areas.
- Local governments have tended to focus on promoting teacher welfare, including the building of houses for teachers. ***The provision of housing appears to have a positive impact on promoting teacher attendance in school***. However, the ***quality of housing for teachers remains relatively low***. Moreover, the majority of teachers have not yet received housing assistance from the government, while some of those who have received housing assistance do not actually live in the Dinas houses because of poor housing quality.

VI. KEY RECOMMENDATIONS

These recommendations have emerged from the findings of this study. In December 2011, a consultative workshop considered the study findings and agreed on the following recommendations as appropriate and realistic in reducing teacher absenteeism for the Papua and West Papua contexts.

A. MANAGEMENT AT SCHOOL LEVEL

- ***Reduce 'excused' absences through a variety of measures.*** Better management of teacher time and duties alone could decrease the overall rate of teacher

absenteeism between 30% and 40% (i.e. immediately reducing the current rate from 33.5% to around 20%).

- ***Enforce applicable sanctions*** toward teachers who do not fulfill their duties. The promotion of better discipline in schools through a stronger sanction system has been hampered by the lack of will to enforce them at the school level.
- Introduce a system to ***ensure that a substitute teacher is always available in case a regular teacher is absent from school***.
- Develop a specialized school level substitute teacher incentive programme together with school committees.
- Make sure that if teachers are attending training, a substitute teacher system is in place. If a substitute teacher is not available, prohibit schoolteachers from leaving their classrooms unattended.
- Introduce a maximum threshold for excused absence for school principals.
- Schools should limit the forms of 'excused' absence of teachers. Regulate the status of teachers attending professional development.
- ***Expand the implementation of an effective quality of School Based Management*** and devise a replication mechanism applicable across the provinces, with special efforts as needed for rural-remote areas.
- ***Improve school leadership*** and management, with expanded leadership training for principals.
- Encourage hands-on, regulated ***community participation*** in school decision-making and functional processes at school level.
- Support greater ***school level autonomy*** in evaluating the work performance and management of Civil Servant (PNS) teachers, including in Foundation schools, where many government teachers tend to feel unaccountable.
- Promote the use of ***teacher attendance books*** and other measures to manage teachers' performance.
- Increase the ***monitoring of teacher attendance by involving communities.***
- Ensure a ***minimum level of teaching and learning materials*** for use by teachers in classrooms, especially for the special learning environments of small schools.

B. TEACHER MANAGEMENT, TRAINING AND PROFESSIONAL DEVELOPMENT

- Improve government regulations in support of ***teacher attendance as a performance standard.***
- Build on efforts to ***provide specialized pre-service training for candidate teachers to be stationed in rural/remote areas***.
- ***Strengthen school level monitoring*** via local government strengthening in sub-districts, strengthened functions of LPMP and revitalizing school gugus mechanisms, especially for rural-remote areas where school monitoring is the weakest.

- ***Strengthen teacher professional networks*** (such as school gugus) where teachers can receive peer mentoring and support on an on-going basis. This is especially crucial for isolated teachers in rural-remote areas.
- ***Ensure teacher scheduling for certification and other activities in such a way that 'excused' absences do not result in lost teaching time for students.***
- Support on-the-job training for teachers through various measures, including ***making greater use of distance education/Papua TV for trainings*** – linking this to provincial RESPEK programme of making TVs available in all sub-districts across Papua and West Papua Provinces.
- Introduce effective teacher management and distribution policies for small schools to ***support teachers and students with requisite skills and environment for small schools.***
- ***Support pre-service and in-service training specially designed for teachers of small schools,*** including multi-grade and early grade teaching as well as on adjusting curriculum and learning schedules to accommodate the needs of small children.

C. TEACHER INCENTIVE PROGRAMMES

- Augment teacher certification programmes with availability of substitute teachers.
- T***arget teacher incentive schemes*** better to enable distribution to appropriate beneficiaries in rural and remote areas.
- Provide incentives and support to contract teachers working in rural and remote schools, such as higher remuneration for travel and entertainment
- ***Improve the quality and availability of teacher housing facilities***.

  Incentivize teachers with ***special teacher promotion policie*****s for rural and remote area teachers**.

D. GOVERNANCE AND MONITORING

- Strengthen teacher recruitment guidelines as well as teacher promotion systems, reducing administrative burden, high turnover, and travel.
- Legislate, or otherwise regulate the required keeping and use of teacher attendance books.
- ***Monitor teacher attendance rates on a regular basis, involving communities*** through community-based monitoring systems (e.g. Community-based Education Monitoring System)
- Strengthen sub-district level capacity to monitor schools, involving civil society where appropriate. This can help overcome service delivery problems due to distance from district-level education offices.
- ***Establish 'remote area school task forces' in Provincial and District governments*** that are empowered to take special measures to promote the improvement of education services in remote areas.

E. INFRASTRUCTURE

- Improve supply of higher ***quality and availability of classroom learning aids and resources*** to be supported by provincial and district governments.
- Continue National, Provincial and District government support for ***school building rehabilitation*** programmes, involving the community fully for greater ownership, and ensuring minimum standards for school infrastructure, including: water and sanitation facilities for teachers and students; furniture and learning aids; electricity; and playgrounds with equipment.
- Provide ***good quality teacher housing*** close to the schools in rural-remote areas.

Primary Students in Highland districts

1. INTRODUCTION

1.1 BACKGROUND

Teacher absenteeism is a global phenomenon. Absenteeism rates can reach 10% in developed countries and above 40% in developing countries (Kremer et al., 2004, p. 1; Alcazar et al., 2006, p. 1; Rogers and Vegas, 2009). Many studies and policy documents confirm this impairs children's learning, moral growth, and is a barrier to the achievement of the Millennium Development Goals (MDG) and Education for All goals (EFA) (Ivatts, 2010, p.6). Papuan academics believe that teacher absenteeism strongly contributes to the low Human Development Index (HDI) of Papua (64.53) and West Papua (68.58), some of the lowest in Indonesia (33rd and 30th respectively) (Badan Pusat Statistik, 2009). For government officials, civil society organizations (CSO), and communities in Papua and West Papua, ensuring teacher attendance in schools is vital to improving education service delivery, student learning outcomes, accelerating MDG attainment and improving HDI levels.

Whatever the importance of strong training, classroom experience, or advanced pedagogical methods for the scholastic development of students, these factors can have scant effect on a day a teacher is away from school.

(Clotfelter, Ladd, and Vidgdor, 2007)

Teacher absenteeism is most damaging to children from poorer rural, indigenous communities where it further limits children's access to quality education services (Rogers et al., 2006, p. 136). Research in Indonesia suggests that rural and remote communities struggle to attract qualified and dedicated teachers, resulting in higher rates of absenteeism relative to other geographic locations. In some cases this can reach 44% (Toyamah et al., 2009, p. 49, Ivatts, p. 8).

***Policies to overcome teacher absenteeism*.** Because of high rates of teacher absenteeism in many rural and hard-to-access districts across Indonesia, the national government has introduced several policies to promote teacher attendance in these areas. They include teacher certification programmes, special training programmes and special remote area teacher allowance schemes (Tomayah, 2009, pp. 1-2).

Government officials in Papua are committed to increasing teacher attendance in school. In 2008 the Office of Education, Sport and Youth released a policy document entitled 'Master Plan for Education and Development with Increasing Teacher Welfare in Papua Province, 2009-2013) (Office of Education, Sport and Youth, 2008). The document refers to teacher absenteeism as a major problem facing education, especially for schools in remote areas. The Master Plan highlights the importance of teacher character and motivation, which it perceives to have been better during the Dutch colonial period when teachers had a positive attitude and served as good role models for children. It notes how that spirit has been lost among today's teachers and makes the following observations related to teacher attendance in primary schools: (1) at the time of their data collection, 752 teachers had

'abandoned' their posts, (2) many teachers had not completed their qualification requirements and lacked sufficient competency, (3) incentives and the welfare system for teachers are inadequate in remote areas, (4) the administration of civil servants, including teachers, is poor, and (5) monitoring systems are weak. The Master Plan also acknowledges the hardships facing teachers, especially in remote areas, and focuses on improving teacher professionalism, attitude, competency and welfare.

Other initiatives of education offices in Papua and West Papua include 'Affirmative Education Policy', which addresses limited access to education for children in rural and remote areas by strengthening early grade education (classes 1-3 or 'small schools' for children in rural areas) and the establishment of 'single roof schools' for children of higher primary school grades and junior secondary school. Such efforts emerged because of limited school facilities and insufficient numbers of qualified teachers available or willing to teach in rural and remote areas. Overall, the Masterplan focussed upon improving teacher professionalism and 'mentality', increasing teacher competency, and improving teacher welfare.

Policy evidence base. Practitioner knowledge and anecdotal evidence is the main foundation for policies designed to address teacher absenteeism in Papua and West Papua. However, evidence on the effectiveness of national, provincial and district policies to overcome teacher absenteeism is limited. In 2009 the Indonesian research institute SMERU conducted an effectiveness study but did not include districts from either Papua or West Papua. A focused study is therefore needed in both provinces to provide a reliable local evidence base for policy makers to formulate policies and strategies to address the issue of teacher absenteeism.

1.2 LITERATURE REVIEW AND ANALYTICAL FRAMEWORK

Defining teacher absenteeism. Teacher absenteeism can be defined as a) "any failure of an employee to report for or to remain at work as scheduled, regardless of reason", b) "a period of not attending school", or c) "being present in school but failing to visit their class to teach or not being in a fit condition to teach the children effectively" (Ivatts, 2010, pp. 3-4). Policy discussions in Jakarta have occasionally classified teacher absenteeism into the Minimum Service Standards for the Basic Education Sector (MSS), a minimum 24-hour teaching week for full-time teachers. There has been noted concern that the term 'absenteeism' can portray absent teachers as 'lazy', 'irresponsible' or 'unprofessional', regardless of the legitimacy of their absence (Ivatts, 2010, p. 4). In response, some studies have thus used categories of 'excused' and 'unexcused' absence to distinguish between teachers who are legitimately away from school and those who are not (Abeles, 2009).

Differences in understandings of teacher absenteeism mean that a diverse range of research methods have been employed to examine different factors that influence teacher absence. Unreliable administrative records, such as attendance books or monitoring logs can further hinder informative research of teacher absenteeism (Rogers and Vegas, 2009; Chaudhury et al., 2004). To avoid reliance on administrative records, studies conducted in a similar context to Papua and West Papua have used narrow definitions of teacher absenteeism so data can be collected by direct observation.

***Impacts of teacher absenteeism*.** Absenteeism negatively impacts academic achievement of students and their future wellbeing (Ivatts, 2010, pp. 6). From a management perspective it is also costly, especially in developing countries that allocate a large proportion of the national budget to educational services.

Teachers are regarded as gatekeepers to knowledge and mentors with an important role in character development of children, future productive citizens to contribute to the broader wellbeing of a society (Uehara, 1999, p. 1; Suparno 2008; Buchari Alma, 2008, p. 133).[2] Substandard learning environment subverts and distorts the personal, social and moral development of children and young people, weakening core values of personal integrity and social responsibility (Ivatts, 2010, p, p. 9; Uehara, 1999, p. 1). As an element of diminished learning environment, teacher absenteeism undermines children's motivation to learn (Uehara, 1999, p. 1). Some academics suggest a strong correlation between teacher absenteeism and high rates of student absenteeism, grade repetition and dropouts (Ivatts, 2010, p, pp. 9-10). A study by SMERU in 2008 demonstrated a positive relationship between the level of teacher absenteeism and student absenteeism (Toyamah, 2009).

Finding causes of teacher absenteeism. To determine causes of teacher absenteeism, some researchers focus on personal factors that relate to the teacher's level of commitment, such as salary and motivation. In Israel, for example, researchers identified teacher and principal absentee categories based on their age, education and supervisory position (Rosenblatt, 2005; Rosenblatt and Shirom 2004). Other studies explored the relationship between organisational position of teachers and principals and their salaries. They found that as job level, salary and responsibility rise, absenteeism declines, and vice versa (Abeles, 2009, p. 35). These types of studies have mostly been conducted in developed countries using reliable school administrative records.

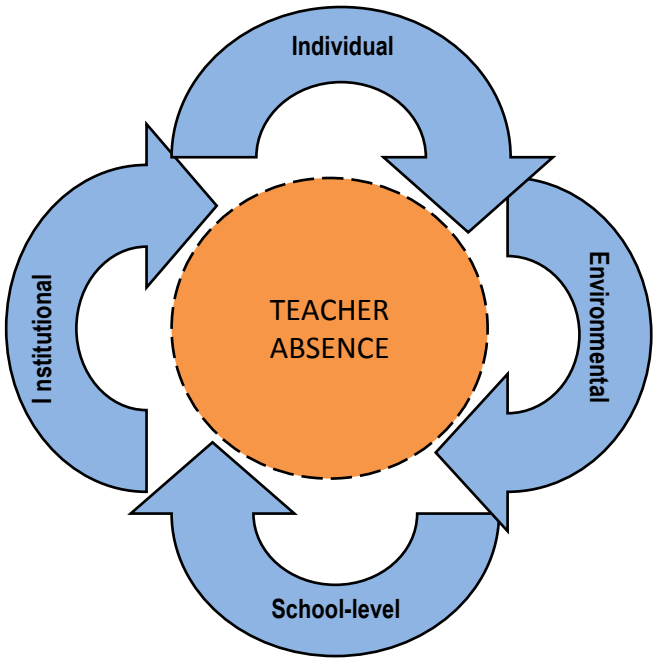
Other researchers argue that personal factors such as salary or teacher motivation overlook deeper management system problems, such as weak accountability, poor monitoring and incentive/disincentive systems (Rogers et al., 2004). Studies that examine management system issues often make different conclusions from those focusing on personal factors. They conclude that salarys and institutional standing of teachers does not necessarily determine absenteeism. Some studies have even found a positive relationship between teacher salary/position and absenteeism – as the teacher's seniority and salary increase, so does their absence from school (Rogers et al, 2004).

Causes of teacher absenteeism thus cannot be generalised, as they are context-specific and vary across different locations. Causal factors may include teacher demography, gender, seniority, type of employment contract, type of school, job satisfaction, professional commitment, school and institutional management, monitoring systems, incentives and sanctions, educational administration, recording and reporting procedures, health, secondary employment, class size, quality of school infrastructure, distance to school, isolation, level of training, formal duties, quality of learning environment, social context of the school, community socio-economic status, school leadership, and community participation (Ivatts, 2010, p, p. 7-8).

[2] This view is strongly reflected in academic thinking in Papua and policy documents that stress issues of professional and 'moral commitment' (Master Plan, 2008).

Figure 1 shows the analytical framework for this study highlighting the main factors that influence teacher absence. It complements Papuan academic thinking and relevant studies examining institutional and governance aspects of teacher absenteeism.

Figure 1. Analytical framework



1.3 OBJECTIVES OF THE STUDY

Provincial governments in Papua and West Papua wish to develop evidence-based policies to ensure all primary school children in their provinces have a teacher in the classroom. At the request of the provincial government, two provincial universities (UNCEN in Papua and UNIPA in West Papua) conducted this study with technical assistance from UNICEF and SMERU. The four objectives of the study were to:

1) *Provide a snapshot of levels of teacher absenteeism at primary school level in Papua and West Papua;*
2) *Identify the factors influencing teacher absenteeism;*
3) *Identify the extent to which government policies and programmes have been successful in promoting teacher attendance in classrooms, particularly in remote regions of Papua and West Papua; and*
4) *Provide policy recommendations to provincial and district governments that will promote increased levels of teacher attendance in classrooms.*

2. METHODOLOGY

Researchers from UNCEN and UNIPA conducted the study with technical support from UNICEF and SMERU. An external reviewer assessed its statistical analysis to ensure accuracy and reliability of the data. The study adopted research methods from similar studies conducted in India, Peru, Bangladesh, and in other parts of Indonesia (Chaudhury et al., 2005; Rogers and Vegas 2009; Alacazar et al., 2005; Toyamah et al., 2009). This ensures comparability with previous research findings and adherence to accepted methodological standards. It explores institutional, individual and school-level factors influencing teacher absenteeism (Kremer et al., 2004, p. 2) combined with conditions specific to Papua and West Papua such as health, security and geography. These categories are operationalised in the Papua and West Papua context as (1) teacher characteristics, (2) teacher welfare, (3) school-level factors, and (4) institutional factors related to the governance and oversight of teachers. The research instruments were finalized with provincial government education officials to ensure inclusion of factors relevant to local policy-makers.

***Operational definition of teacher absenteeism*.** The definition used for classifying teachers as 'absent' was "teachers or principals who are not in school although they are scheduled or expected to be teaching when visited by survey teams". Teachers 'expected' to be at school refers to teachers who for a range of reasons were not present at school during the field survey. In such cases there were no substitute teachers, which was equivalent to teachers absent without justified reason. During analysis, absent teachers or principals were further classified into 'excused' and 'unexcused' categories, based on their reason for absence.

2.1 MULTI-STAGE STRATIFIED GEOGRAPHIC SAMPLING

Multi-stage stratified sampling with the Probability Proportional to Size (PPS) method was used for selecting a sample of schools for the study. This approach was used in previous studies in India (Chaudhury et al., 2004, p. 6) and in Ecuador (Rogers et al., 2004, pp. 161-162).[3] The basis for calculating PPS in this study was the proportional distribution of primary schools in different geographic categories.

2.1.1 Stage 1 Sampling – Clustering Districts by Regional Typology

Three types of geographic categories were identified within Papua and West Papua districts to ensure proportional representation of schools[4]: (1) Lowland easy-to-access districts, (2) Lowland hard-to-access districts, and (3) Highland districts.[5] Table 1 shows the clustering of districts into three categories from the two provinces.

[3] Chaudhury et al. use a stratified geographic sampling method (dividing regions into rural, municipality, and metropolitan) followed by school selection using probability-proportion-to-population size sampling to select schools in different types of geographic regions in proportion to population size in those areas. For this study, proportional distribution of primary schools in different geographic categories was used because of unreliable population data in Papua and West Papua Province prior to the release of the 2010 national Census results.

[4] Population numbers are often inflated by local officials seeking to gain justification for the creation of new districts or additional central government funding. Schools, on the other hand, are assumed to be a more reliable basis for calculating proportional representation as the number of schools is less easily inflated.

[5] During the survey design stage highland districts were originally classified into two categories to accomodate for 'old' and 'new' districts. However, during the analysis stage these categories were merged due to statistical similarities between the two categories and so as to simplify the analysis and presentation of findings.

Table 1. Distribution of districts based on geographic categories

CATEGORY	*Description*	*PAPUA*	*WEST PAPUA*	*TOTAL*
I	Hard-to-access Lowland	8	7	15
II	Easy-to-access Lowland	8	4	12
III	Highland	13	-	13
	TOTAL	**29**	**11**	**40**

Initially, districts with similar levels of economic development, social and cultural conditions and accessibility were clustered together. The proportion of schools found in each geographic category was then calculated to establish a preliminary sample of schools representing each category. To determine sample size, a minimum sample of primary schools required to achieve a confidence degree of 95% and proportional indicator of 50% was calculated assuming a non-response rate of 30% of schools (minimum school sample required was thus 200). During the sample design stage the research team thus 'over sampled' schools to ensure the minimun 200 were visited during the survey stage.

Field research teams further verified the preliminary school samples and made necessary adjustments to ensure the samples are representative of each geographic category. During the instrument piloting stage in August 2011 and enumerator training in September 2011, district research team leaders learned to verify the preliminary school sample and to adjust it according to district and provincial government data (schools still operating, new schools established, etc.). Taking this information into account improved proportional representation of sub-district schools in the random district-level sample.

2.1.2 Stage 2 Sampling – Selection of schools by district geographic category

During the survey, 18 schools were not visited because of inclement weather, security concerns, or difficult access. Four schools from lowland hard-to-access districts were additionally lost from the database[6]. The final sample of primary schools was 238 including schools that were closed (8% of the planned target of all primary schools in Papua and West Papua). From the 238 schools, 16 schools were closed during field visits (10 schools in Papua Province and 6 schools in West Papua Province) so 222 schools were actually sampled. This is a 12% reduction in the sample size from the original target of 260. This reduction is below the 30% non-response rates for schools permitted by the sampling design, thus maintaining the integrity of the sample and resuling in a slightly stronger confidence interval than originally planned. The final sample of schools was also almost perfectly aligned to the original desired proportional weighting of schools across different geographic categories (see below), thus making it unnecessary to apply statistical weights to the school sample. Due to the high number of missing data for several teacher characteristic variables, a model-weighted approach was adapted to estimate the

[6]This omission was discovered during mid-February of 2012. Review of data from these cases showed that the schools were from remote areas. The number of teachers recorded in these cases was 20, with 50% being absent from school during the survey. As this did not significantly affect the final result the research team decided the exclusion of these cases did not undermine the reliablity of the overall findings as final results remain within the calculated margin of error.

characteristics of all absent teachers to provide a representative picture in all geographic strata. Researchers surveyed 1,296 teachers (both present and absent) and 427 community members for the community perceptions component of the survey (Table 2).

Table 2. Final sample of schools, teachers and community members

Geographic categories	# of schools	% of total	Sample Target	% of Sample	Schools Surveyed	% of total	Teachers surveyed	% of teachers surveyed	Community members
Papua									
Hard-to-access Lowland	552	18%	46	18%	42	18%	191	15%	42
Easy-to-access Lowland	915	30%	77	30%	72	30%	482	37%	153
Highland	677	22%	57	22%	45	19%	189	15%	80
Total Papua	**2144**	**69%**	**180**	**69%**	**159**	**67%**	**862**	**67%**	**275**
West Papua									
Hard-to-access Lowland	460	15%	39	15%	38	16%	241	19%	76
Easy-to-access Lowland	495	16%	41	16%	41	17%	193	15%	76
Total West Papua	**955**	**31%**	**80**	**31%**	**73**	**33%**	**434**	**33%**	**152**
TOTAL	**3099**		**260**		***238***		***1296***		***427***

2.1.3 Stage 3 – Selection of sub-districts and schools by accessibility

The selection of primary schools, within randomly selected districts, was based on concentric classification of their accessibility from city centers using government data. Sub-districts in Papua and West Papua are classified as urban (perkotaan), semi-urban (pinggiraan), rural (pedalaman), and isolated/very hard-to-access (terisolir). The classification into these categories corresponds to their distance from the district capitals and is based on their accessibility, isolation/remoteness, and monitoring difficulty due to their location. During the analysis stage of the survey these categories were collapsed into three groupings: urban, rural, and remote/isolated.

Schools were randomly selected from provincial government lists verified at district level. Both state and privately managed schools registered with the Provincial Education Offices and the Ministry of National Education and Culture (MONEC) were represented in the study sample.

2.2 SELECTION OF SURVEY RESPONDENTS

Principals, teachers, school committee members and community members were interviewed for this study.

School principals. At each randomly selected school, school principals (or their representatives) provided information on the school profile and teacher absenteeism rates.

Teachers. Based on lists provided by the school principal or their representative, enumerators interviewed a maximum of seven randomly selected teachers 'scheduled' or 'expected' to be teaching a class during the survey. At schools with less than seven teachers, they interviewed all the teachers present. For the teachers absent, enumerators collected as much information as possible from principals, other teaching and non-teaching staff, and in some cases sought the absent teachers out if they lived close to the school.

Community members. Enumerators selected two community members from each school committee to be interviewed for the community perceptions survey. If the school did not have a functioning committee, two community leaders such as village heads or religious leaders were interviewed instead.

Policy-Makers/duty-bearers. Policy-makers at district and provincial levels provided information about government policies and strategies for improving educational services at school level, management responses to teacher absenteeism, monitoring of schools and the incentive/disincentive schemes for teachers.

2.3 DATA SOURCES AND COLLECTION OF EVIDENCE

University and SMERU researchers gathered preliminary data on district and provincial government policy in June 2011 for Provincial Education Offices of Papua, West Papua and several research districts[7]. They used the information to improve the survey instruments and to account for local conditions.

Unannounced school visits. Data for the school survey was collected in September and October 2011 with unannounced school visits. Visits were unannounced so local officials or school personnel would not mobilise teachers to be present at school prior to the arrival of survey teams. While the research team had some concern that local officials may have attempted to disclose survey team visits to school principals in two districts, subsequent checking demonstrated that this did not occur, verified by the consistency in observed rates of teacher absenteeism in those two districts with rates found in other locations.

Five teams of researchers were comprised of enumerators led by district research coordinators. Enumerators were UNCEN and UNIPA students whose selection criteria included previous survey experience, origin from sample districts, and local language skills. District team coordinators were UNCEN and UNIPA faculty members with strong research backgrounds and research experience in Papua and West Papua. Enumerators were trained for several days prior to the survey on how to conduct surveys at school level and record data.

In each sample district, two-enumerator teams visited sample primary schools. During the visits one of the enumerators would obtain a list of teachers employed at the school and teachers scheduled or expected to be teaching from the principal or their representative. Enumerators also noted reasons for absence of teachers in the school profile questionnaire.

[7] Done during the survey instrument development stage and sample design stage of the survey.

In cases where teachers were away on school-related duty and no substitute teacher was available, enumerators recorded it as teacher absence because no learning was taking place while children had an 'expectation' to have a teacher at school.

One of the enumerators would complete the school profile questionnaire together with the principal or their representative, while the other enumerator would interview selected teachers for the teacher profile survey. Information on teachers absent from school was completed as much as practicable with the assistance of principals, other teachers or community members, but often with large gaps in data. Enumerators ended the survey by interviewing two randomly selected school committee members or community leaders. In summary, enumerators completed three types of questionnaires for the primary school study:

a. ***School level questionnaire*** to establish a profile of the school, level of School Based Management (SBM) and the level of student attendance.

b. ***Individual teacher questionnaire*** to establish a profile of full-time teachers in primary schools across different geographic regions of Papua and West Papua. (For schools that had less than seven teachers all categories of teachers were included in the teacher profile survey).

c. ***Community questionnaire*** to ascertain level of community involvement in monitoring of schools and to understand community perceptions of teacher absenteeism and its effect on dropout and repetition rates and quality of education.

In-depth interviews of district officials and duty-bearers. Researchers conducted qualitative interviews with a sample of district and provincial policy-makers to identify local institutional policies for addressing teacher absenteeism. Respondents included heads of District Education Offices, school supervisors, community leaders, youth representatives, leaders of local education foundations or NGOs, and teachers.

Secondary data sources. Secondary datasets from the BPS 2010 National Census and Education Office data for Papua and West Papua were used to supplement information on the education profile of the two provinces outlined in Annex A.

Primary data sources. Statistics Indonesia (BPS), UNICEF and SMERU personnel conducted the analysis of statistical data for the study. SMERU and local university researchers assisted with field survey notes, and district research team leaders prepared several mini case studies from follow-up visits to the field. The case studies cover (1) school level management responses to teacher absenteeism, (2) district government responses to teacher absenteeism, (3) privately managed responses teacher absenteeism, (4) violence in schools, (5) leadership at school level, and (6) school-based management.

The analysis concentrates on identifying rates of absenteeism, variations in rates across geographic categories of Papua and West Papua, and the characteristics of those schools and teachers who experience higher rates of absenteeism.

Preliminary review. Preliminary findings were reviewed with government partners and local duty bearers from Papua and West Papua in December 2011 during a policy dialogue.

Review was aimed at verifying preliminary findings, understanding the findings and soliciting policy recommendations from government and CSOs.

2.4 LIMITATIONS

Several limitations are associated with the research methods employed in this study. As a result, the findings presented should be understood with these limitations in mind.

1. Some data on absent teachers was incomplete as it was difficult to obtain such information from secondary sources. Attendance records were not readily available, while other teachers, principals or school committee members either did not have the information or were reluctant to share it – this was particularly the case in highland districts.

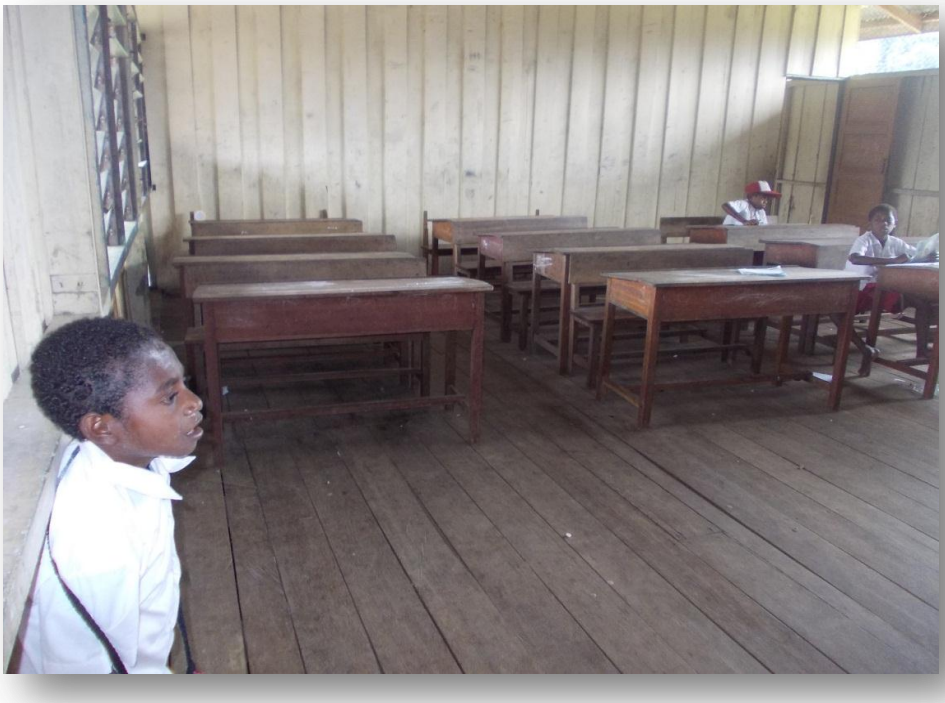
2. As this is the first study of its kind in Papua and West Papua, baseline information and counterfactual analysis for data comparison was inferred from secondary sources.

3. School type was not proportionally selected, so any findings regarding school types are reflective of the sample rather than the total number of schools in each geographic category.

4. Total number of teachers surveyed does not include teachers from schools that were closed at the time of the survey. As a result, the overall rates of teacher absenteeism reported are conservative because a portion of absent teachers has not been included in statistical calculations, meaning that overall rates of absenteeism may be under-reported by 2%-3%.

5. In constructing the SBM index, the survey attempted to produce a 'quality index' that was geared toward measuring the third element of SBM as defined in Indonesian regulations: "learning and teaching processes" for children. However, the variables used to measure learning and teaching processes were not reliable (meaning that the MBS index includes two pillars – management and community participation). Future studies may wish to revisit the idea because if successful, it could yield useful findings regarding the relationship between teacher absenteeism and the quality of learning processes for children.

6. Limitations were experienced during the field survey resulting in a smaller sample of respondents to the question about why teachers travel outside their school locations. This limits the extent to which these findings can be used to analyse variations across geographic locations. As a result, analysis is presented only at an overall level and for district categories.



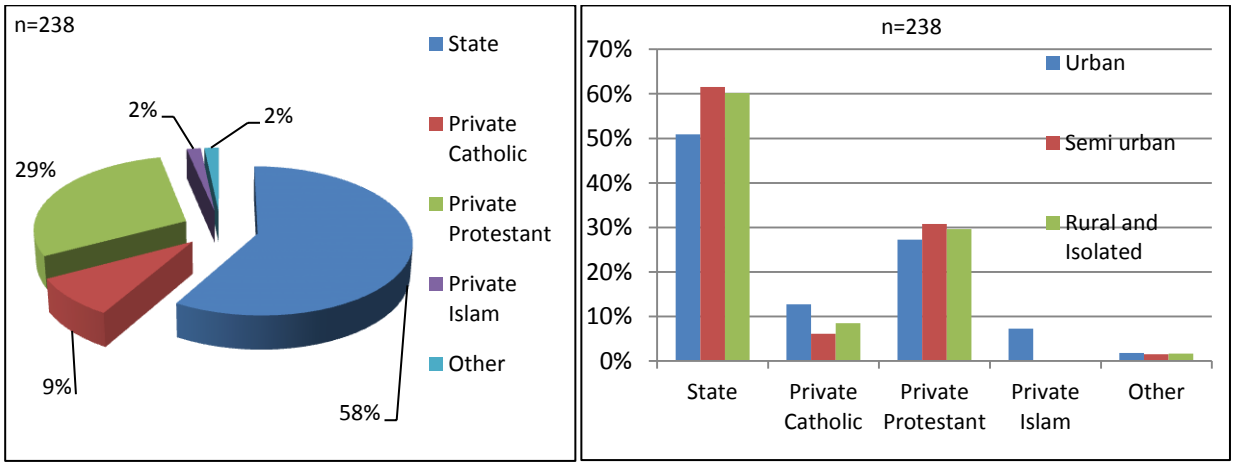
3. STUDY RESULTS AND DISCUSSION OF FINDINGS

3.1 SCHOOL PROFILE AND TEACHER SAMPLE

3.1.1 School and respondent profiles

Types of schools and geographic distribution. The actual number of schools surveyed was 222 (excluding closed schools), of which 159 (67%) are from Papua province and 79 (33%) are from West Papua province. The schools were randomly selected from all schools registered with the government.

Figure 2. Types of school and geographic accessibility



State public schools comprised 58%, private Protestant schools 29%, private Catholic schools 9%, private Islamic schools 2% and other types of schools 2% of the sample (Figure 2). In Papua 62% of the sampled schools were public state schools while 34% were private. In West Papua, 49% were public schools, while 51% were private.

From the final sample, 47% of schools were surveyed from the lowland easy-to-access districts, 33% from lowland hard-to-access districts, and 18% from highland districts. State-run schools comprised 65% of the schools surveyed in lowland easy-to-access districts, 44% of schools in lowland hard-to-access districts, and 66% of schools in highland districts. Private Protestant schools comprised 22% of the sample in lowland easy-to-access districts, 39% in lowland hard-to-access districts and 33% in the highlands.[8] Private Catholic schools made up 10% of the sample in lowland easy-to-access districts and 12.5% in lowland hard-to-access districts, while private Islamic and 'other' schools comprised 2.5% of the sample in lowland easy-to-access districts and 1% of the sample in lowland hard-to-access districts.

In terms of sub-district geographic categories, 23% of the schools surveyed were located in urban areas, 27% in semi-urban areas, and 50% in rural/isolated areas. As indicated in

[8] In the sample private Catholic and private Islamic schools are not represented in highland districts.

Figure 2, state-run schools made up 51% of sampled schools in urban areas, 62% of schools in semi-urban areas and 60% of schools in rural and isolated areas.

Private Protestant schools made up 27% of sampled schools in urban areas, 31% of schools in semi-urban areas and 30% of schools in rural and isolated areas. Private Catholic schools comprised 13% of the schools surveyed in urban areas, 6% in semi-urban areas and 8.5% in rural and isolated areas. Private Islamic schools comprised 7% of surveyed schools in urban areas.

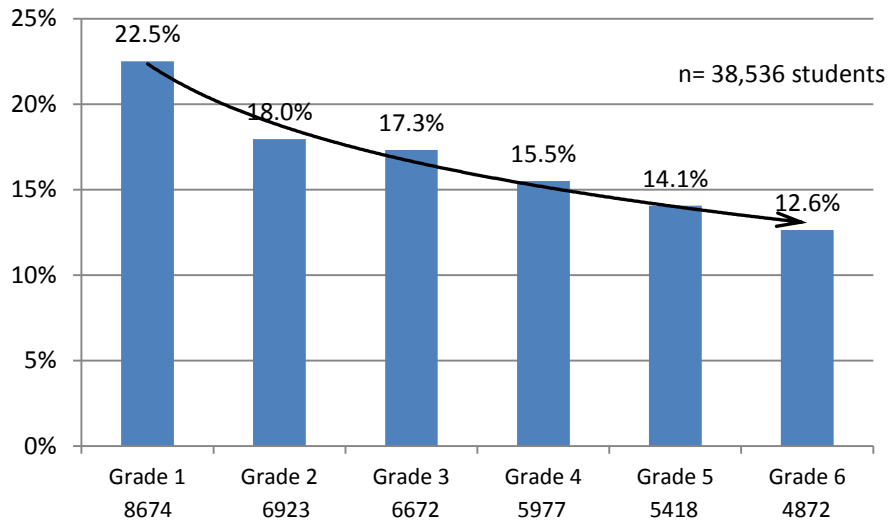
Instructional language in classrooms. Bahasa Indonesia was the main instructional language, used in 89% of surveyed schools, across all school types and geographic categories. Local languages were used for instruction in 4% of surveyed schools, while the remaining 7% of schools were closed during the survey. Most schools using local languages for instruction were located in remote locations.

Teacher-student ratio and student enrolment. The overall teacher-student ratio within the school sample is 1:20. Table 3 shows the ratio variations across district and sub-district categories. The ratio is nearly consistent across the urban, semi-urban and rural/isolated split. From district category perspective, however, highlands have a notably higher number of students per teacher compared to easy-to-access and hard-to-access areas (the ratio of students to teachers in the highlands was almost 1.5 times that or ofther district categories).

Table 3. Teacher-student ratio by geographic category

District Categories			Sub-district Categories		
Easy-to-access	Hard-to-access	Highlands	Urban	Semi-urban	Rural/isolated
1:19	1:21	1:34	1:23	1:24	1:22

Figure 3. Students by grade Level (%)



The ratios were derived by dividing the total number of students by the total number of teachers, which does not account for student distribution per teacher across grade levels. Because of uneven distribution of students in each grade, there are significant differences in the teacher-student ratio between grade levels. Lower grade levels are likely to experience a much higher number of students per teacher than the higher grades, especially in highland areas (Table 3, Figure 3). As shown above, there is an uneven distribution of students across grade levels, with a much larger proportion of students enrolled in Grade 1 compared to higher grades with the proportion of students steadily decreasing across grade levels up to Grade 6. While Figure 3 can also be interpreted to show a steady increase in the rate of children's participation in primary school, the opposite is in fact the case. The data here suggests that almost half of all children who enroll in primary school drop-out of school before reaching Grade 6 – the stage at which they would make a transition to Junior Secondary School. Additionally, the trend of declining participation in higher grade levels tends to explain findings from the BPS 2010 National Census presented in Annex A, which show that almost 40% of primary school aged children in Papua were out-of-school at the time of the national census conducted in 2010. Not surprisingly, ***the highest proportion of those students who do not survive to Grade 6 are found in the highland districts of Papua*** where key educational indicators are lowest and inequities facing children are the highest.

Boys and girls in school. The percentage of boys enrolled in the sampled schools is higher in all cases. Overall, 54% of students are boys and 46% are girls. State-run schools have the highest gender disparity, 9% (54% boys, 45% girls) while private Islamic schools have the lowest, 2% (51% boys and 49% girls). Based on sub-district geographic categories, urban area schools have a 4% gender gap (Figure 4), while in semi-urban and rural/isolated areas the gap is close to 10%. Gender disparity is most pronounced within district geographic categories, specifically highland areas where the gap is 18% (boys 59% and girls 41%) (Figure 4).

Figure 4. Gender enrolment in schools by sub-district geographic category

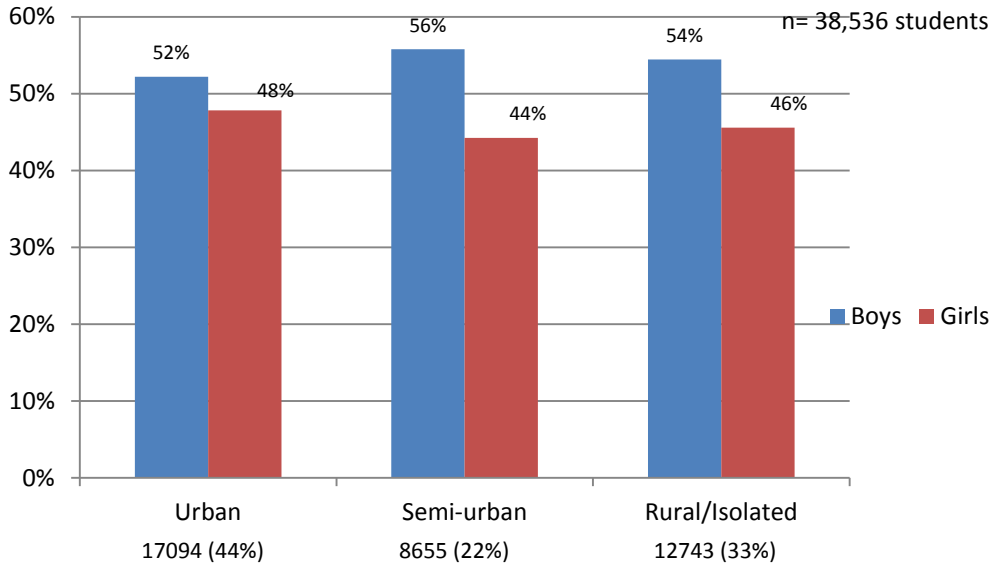
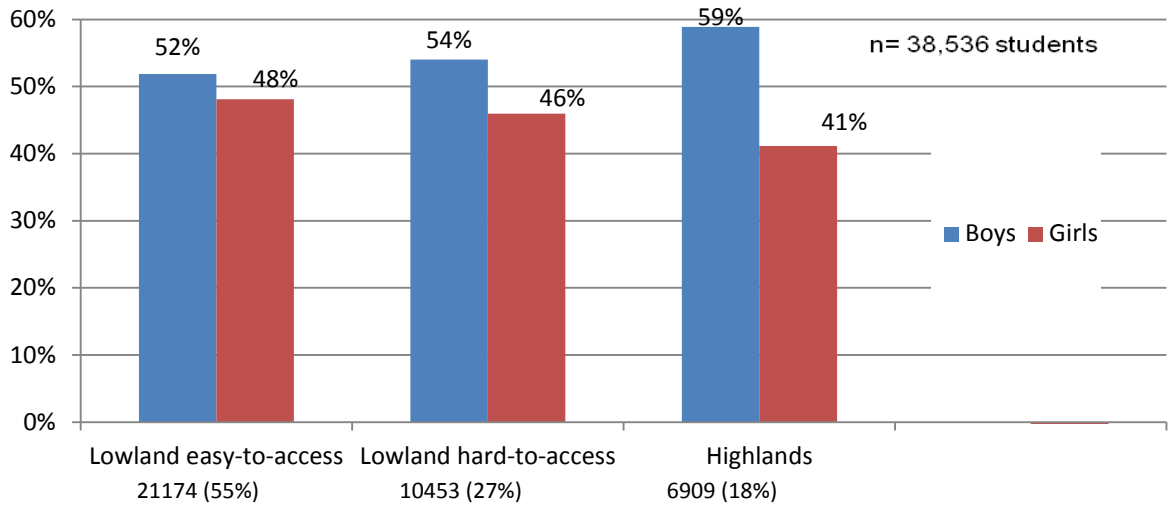


Figure 5. Gender enrolment in schools by district geographic category



Out of 38,536 students in 2011/2012, 61% were enrolled in state schools, 22% in private Protestant schools, 11% in private Catholic schools, 5% in private Islamic schools, and 1% in 'other' types of schools. The majority of these students are in Grade 1 (23%) with the percentage decreasing in every subsequent grade. Grade 6 students comprise 12% of the student body (less than half the proportion of students found in Grade 1). Figure 3 thus suggests that ***almost half the children who enroll in primary school drop out before reaching Grade 6 when they would make a transition to Junior Secondary School***. Research by Balitbang in 2007 showed similar numbers, finding that student-dropout rates from primary school were as high as 50%, while the 2010 National Census showed that almost 40% of primary school aged children in Papua Province were out of school at the time of the census (shown in Annex A). The highest proportion of students who do not reach Grade 6 are from highland districts, where key educational indicators are lowest and inequalities facing children are highest. Additionally, student data shows that ***highland districts have the lowest proportion of children enrolled in school when compared to other district categories even though 37% of the entire population of Tanah Papua resides in highland districts*** (see Annex A).[9]

Availability of electricity, toilets and clean water. Less than half of the schools sampled have access to electricity. In lowland easy-to-access districts 66% of schools had electricity, while in highland districts only 13%). Based on sub-district categories, 74% of urban schools had access to electricity, while in rural/isolated areas 34% had access. Overall availability of toilets in schools was 69%. Of urban schools 94% had toilets, while 85% of semi-urban and rural/isolated schools had toilets. In hard-to-access lowland districts 63% were equipped with toilets, while in the highlands that number was 38%. Clean water was available to 71% of urban schools, and 57% of semi-urban and rural/isolated schools. The lowest level of clean water access was in hard-to-reach lowland districts (46%) and in highland districts (44%).

[9] Population in the highlands is 37% of the entire population of Tanah Papua while only 22% of all teachers listed by government data are stationed in highland districts. The teacher distribution in the highlands is also lower based on these survey findings and is due to teachers 'moving' schools without permission or high rates of absenteeism.

Accessibility and distance to Education Ministry offices. Approximately half of all the schools sampled are located within 5km of a main road, 5% are located 5-15km from a main road, and 18% are more than 15km from a main road. For 26% of schools the distance was unknown. Of the schools sampled, 23% are within 5 km of a government education office, 14% are 5-15km from a government education office, 36% are more than 15km away. For 26% of schools the distance is unknown.

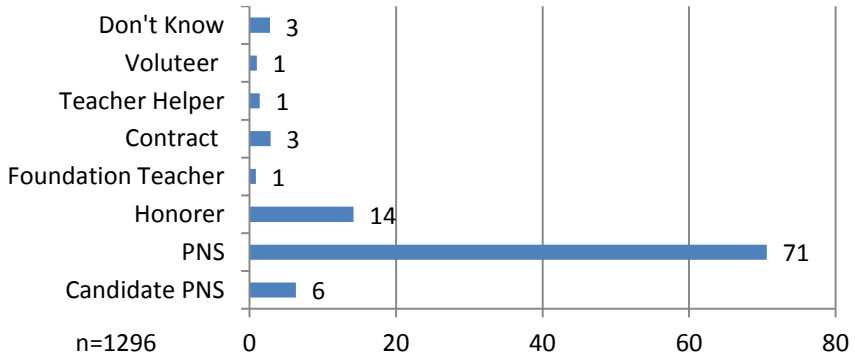
3.1.2 Teacher sample profile

The overall number of teacher respondents, both present and absent during school visits, was 1,296, 3% of whom were principals who also work as teachers.

Types of teachers and distribution. As indicated in Figure 6, the majority of teachers in the school sample (72%) were government civil servants (PNS). Honorary teachers[10]made up 15% of the sample, followed by 6% of candidate PNS teachers, and remaining 6% comprised of contract teachers, foundation teachers[11], teacher helpers, and voluntary teachers[12].

Over half of the teachers (53%) who were surveyed work in lowland easy-to-access district schools, 32% work in lowland hard-to-access district schools and 15% in highland district schools. This distribution corresponds poorly to government data from Papua and West Papua Education Offices across the same geographic categories (see Annex A). Teacher distribution within sub-district geographic categories shows that the majority of teachers, 46%, are stationed in rural/isolated areas, 28% in urban areas and 26% in semi-urban areas. An interview with Head of District Education Office in one highland district, however, revealed that some teachers do not actually teach in schools they were assigned to, but rather tend to move to schools in urban areas or easy-to-access districts – often without official transfer. This occurs mostly in rural/isolated areas. ***Combined with high rates of absenteeism in remote areas, problems with teacher distribution thus further limits the supply of teachers in remote areas.***

Figure 6. Types of teachers (%)



[10] Honorary teachers are non-PNS personnel who are recruited and paid by schools, with fewer benefits and entitlements, and lower seniority than PNS. 'District Honorary Teachers' are those teachers who have been recruited by and are paid by district governments and provided to schools who experience a shortage of teachers.

[11] Foundation teachers recruited and paid directly by privately managed education foundation schools.

[12] Voluntary teachers are typically invdividuals from local communities who will volunteer to help teach in schools that have a shortage of teachers and work without financial compensation.

Teacher distribution by school type. As shown in Table 4, the majority of teachers in all school categories are PNS and candidate PNS (over 76% combined). The highest proportion of PNS teachers are found in state schools followed by private Protestant and Catholic primary schools. 'Other' types of schools and Islamic primary schools have the highest proportion of honorary teachers, while Catholic schools and 'other' types of primary schools have the highest proportion of contract teachers.

Table 4. Teacher distribution in sample by school type (%)

	CPNS		PNS		Honorary		Foundation Teachers		Contract Teachers		Teacher Helper		Volunteer Teacher		Don't Know		Total	%
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
State	33	4,6	526	73,6	97	13,6			18	2,5	14	2,1	7	1,1	20	2	715	100
Private Catholic	4	3,3	84	68	18	14,4	7	5,7	10	8,2							123	100
Private Protestant	40	10	278	68,5	54	13,3	4	1	7	1,7	3	0,6	6	1,6	14	3,4	406	100
Private Islamic	4	13,8	17	58,6	6	20,7									2	6,9	29	100
Other	1	4,3	10	43,5	9	39,1			2	8,7	1	4,3					23	
Total	82	6,30%	915	70,60%	184	14,20%	11	0,80%	37	2,90%	18	1,40%	13	1%	36	2,80%	1296	100%

Gender distribution, ethnicity and provenance of teachers. Table 5 indicates that 55% of the teachers in the sample are men and 45% are women. This corresponds to the overall gender composition of teachers in Papua Province (Dikpora, Education Profile 2010). Women are more highly represented in lowland easy-to-access districts (57% female compared to 43% male), while the proportion of men is higher in difficult-to-access lowland districts (58% male compared to 42% female), and significantly higher in highland districts (91% male, 9% female).

Similar differences exist within districts based on sub-district geographic categories. Women account for 62% and men for 38% of teachers in urban areas. In semi-urban areas, women account for 41% of teachers and men for 59%, while in rural/isolated districts 37% of teachers are women and 63% are men. Government Education Offices encourage female teachers to be stationed in lowland easy-to-access districts because of housing issues, security concerns and proximity to husband's workplace (for those who work in lowland areas).

Table 5. Gender distribution of teachers in sample by geographic category

District Category (n=1296)

	Easy-to-access		Hard-to-access		Highlands		Total	
	n	%	n	%	n	%	n	%
Male	295	43	247	58	172	91	714	55
Female	387	57	178	42	17	9	582	45
Total	682	100%	425	100%	189	100%	1296	100%

Sub-district Category (n=1296)

	Urban		Semi-urban		Rural/isolated		Total	
	n	%	n	%	n	%	n	%
Male	138	38	194	59	382	63	714	55
Female	222	62	136	41	224	37	582	45
Total	360	100%	330	100%	606	100%	1296	100%

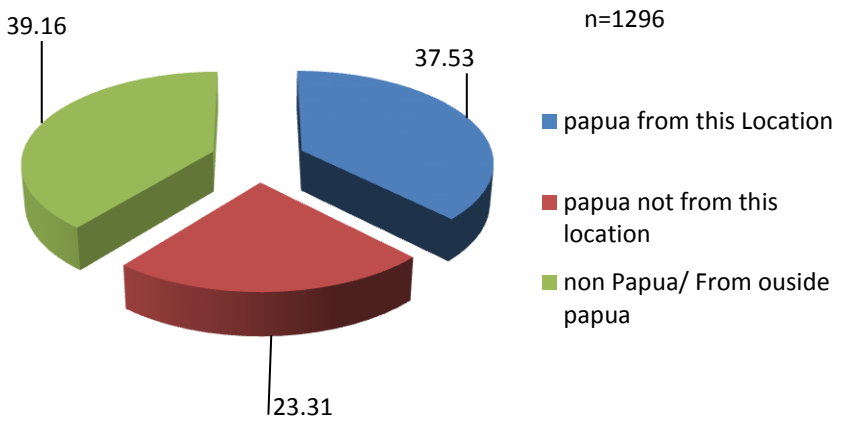
Most literature on teacher absenteeism proposes a theory that locally recruited teachers from local communities tend to be present in school more frequently than externally recruited teachers. Anecdotal evidence, however, suggests that this theory may not apply to Tanah Papua. This study attempts to explore the issue further. We categorized teachers into three broad types based on ethnicity/provenance: indigenous Papuans originating from the school area, indigenous Papuans originating from other districts in Tanah Papua and non-indigenous Papuans/from outside of Tahah Papua. Figure 7 indicates that 60% of surveyed teachers are indigenous Papuan (37.5% locals from the school area and 23% from another district in Tanah Papua). Non-indigenous Papuans/hired from outside of Tanah Papua made up 39% of all the teachers.

The researchers, as well as government and school officials, observed that the majority of non-ethnic Papuan teachers are concentrated in urban areas of lowland easy-to-access districts. Only 3% work in rural/isolated sub-districts, while 50% work in urban sub-districts and lowland easy-to-access districts.

In terms of residence, 69% of all teachers live in the village or sub-districts of their school, 10% live in the same district, while less than 1% report living in 'the same province' (either Papua or West Papua).[13]

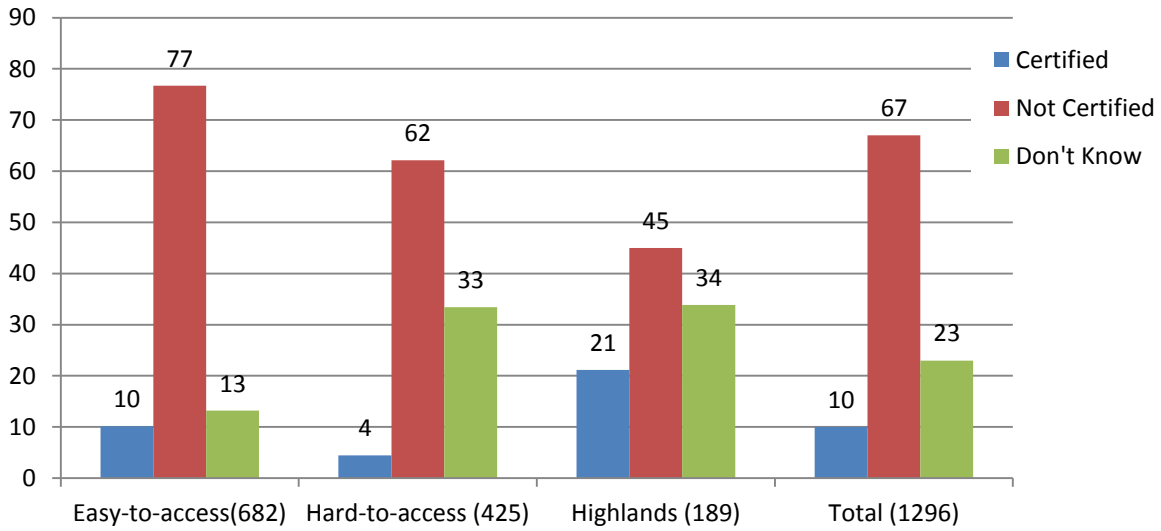
[13]This does not include cases for which data was not available. The available dataset of over 1,000 teachers for which this data is available is assumed to be representative for the entire sample.

Figure 7. Ethnicity/provenance of teachers (%), weighted estimates



Level of education and teacher certification. Of all the sampled teachers 10%, had completed teacher certification. Figure 8 shows that rural/isolated districts have the lowest certification level (7%), while highland districts have the highest (21%). The relatively high score for highland districts was skewed upward by one highland district that reported a teacher certification rate of almost 50%. This is significantly higher than the 10% average and may indicate a data collection or administrative discrepancy particular to that sample district in the highlands. The overall university completion rate (S1 or S2) for teachers is 14%. Schools in remote and isolated areas and in highland districts have the lowest percentage of university-trained teachers (7%).

Figure 8. Certification by district geographic categories (%)

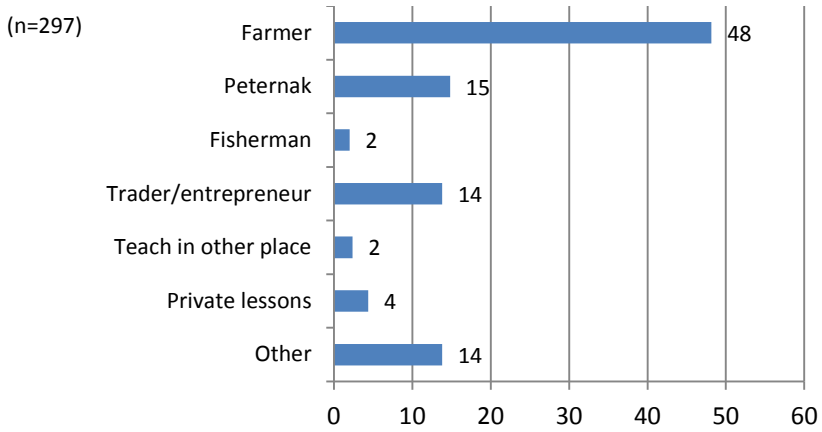


Age, marital status and children. Most teachers surveyed were under the age of 48, 17% were between the ages of 49-58, and 3% were above the age of 59. The largest age group was 39-48 years (40%), 25% were within the 39-48 year old group and 14% within the 19-28 year old group. In highland districts teachers aged 29-38 years comprised 42% of the sample, in easy-to-access lowlands teachers aged 39-48 comprised 40% of the sample and in hard-to-access lowland districts teachers aged 19-28 were more dominant than in other geographic categories.

Of 1,296 teachers surveyed, 89% were married[14]. The proportion ranged from 87% to 92% across all district geographic strata. The highest proportion of married teachers was in rural/isolated districts, and the highest proportion of singe teachers was in urban areas (14%). Of the total sample, 92% of male teachers were married, compared to 85% of female teachers. Most singe female teachers were stationed in urban areas. Of the 85% of teachers who have children, 30% have 1 to 2 children, 33% have 3 to 4 children, and almost 20% have 5 or more children.

Jobs, teaching load and instructional language. In addition to teaching, 27% of teachers have secondary employment to supplement their income (24% of teachers in urban areas, 36% in semi-urban areas, and 25% in rural/isolated areas). The lowest percentage of teachers with secondary employment was in easy-to-access lowland districts (18%), 39% in hard-to-access districts, and the highest percentage was in highland districts with 47%. Most work as farmers, with a smaller percentage working as *peternak* and traders/entrepreneurs (Figure 9).

Figure 9. Secondary employment (%)



Thirty-nine percent of teachers teach more than one class (13% teach 2-3 classes and 10% teach 4-6 classes). The highest proportion of teachers teaching more than one class is in semi-urban and rural/isolated areas (40% and 47% respectively). In urban areas 25% of teachers teach more than one class. Across easy-to-access, hard-to-access and highland districts around 40% of teachers report teaching multiple classes.

[14] To simplify analysis and presentation, the 'ever married' category includes less than 1% of teachers who are either divorced or widowed.

3.2 TEACHER ABSENTEEISM BASELINE

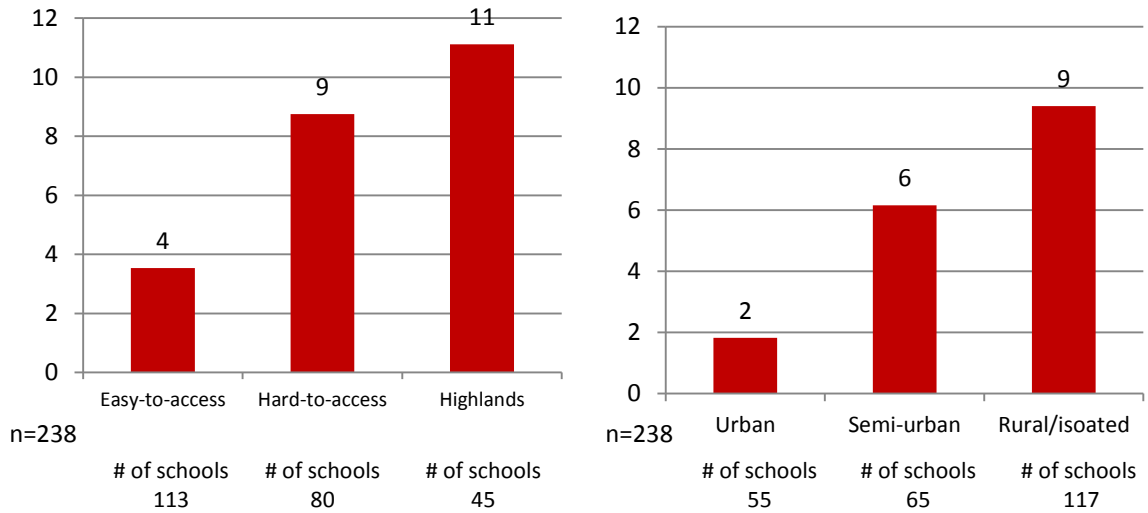
This section establishes a baseline of teacher absenteeism rates in Tanah Papua. According to survey results, the overall absenteeism rate for Papua and West Papua provinces was 33.5%. In Papua it was 37% and West Papua 26%. At the time of the school visits, 51% of school principals were not present, although most were reportedly justifiably 'excused'. The rates of teacher absence are highest in rural and remote areas (43%), the highest being in highland districts of Papua (49%). The highest rate of principal non-attendance in school was also found in highland districts, reaching 67% of schools surveyed.

3.2.1 Closed schools

During the field survey, 16 schools were closed (7% of the total targeted for sampling). Ten schools in Papua were closed and six schools in West Papua. This resulted in slight under-reporting of teacher absenteeism estimated by around 2-3%.

Within district geographic categories the highest proportion of schools closed was in highland districts (11% of sampled schools in this geographic category – or five schools), followed by lowland hard-to-access districts (9% of schools surveyed in this geogreaphic category - or seven schools) and lowland easy-to-access districts (4% of schools surveyed in this geographic category – or four schools) (Figure 10). Within sub-district categories, urban schools had the lowest percentage of closures (2% - or one school), followed by semi-urban schools at 6% (or four schools), and rural/isolated schools at 9% of those surveyed in this geographc category (or 11 schools). Several of the closed schools have not been operational for years but had not yet been removed from administrative lists of the education office.

Figure 10. School closures by geographic categories (%)



In 75% of the cases the reason for school closure was the absence of teachers. Most of them are small schools in rural/isolated areas that typically employ 2-3 teachers. Natural disasters and local conflict each accounted for 6% of school closures. In 13% of cases the schools have not operated for years or the reason for closure was unknown. As reasons for teacher absence and school closure, school staff listed 'attending a religious/social activity',

'prolonged absence to complete their university degree or teacher certificate', and 'harvesting and 'foreging'.

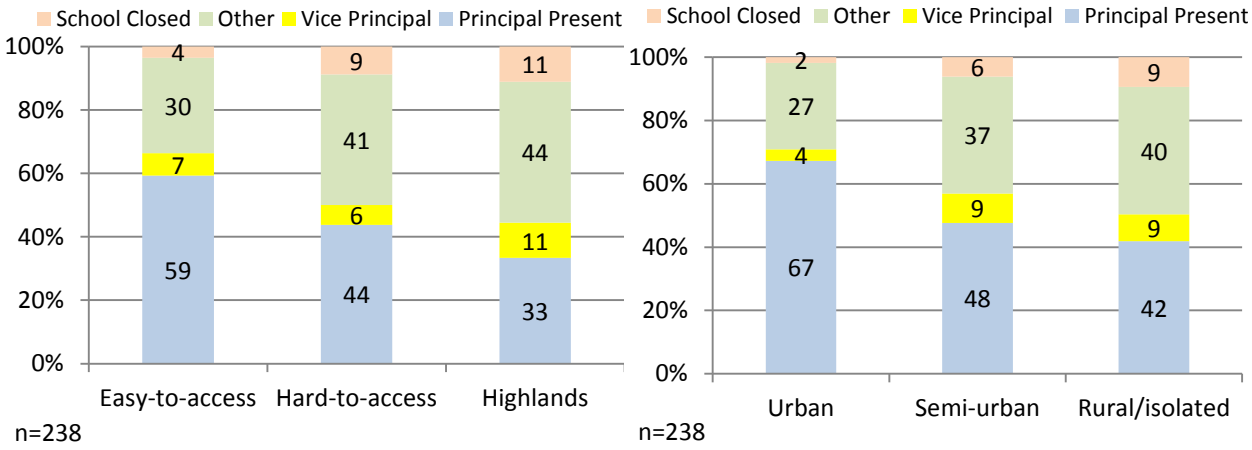
The length of school closure ranged from one month for schools that experienced natural disasters such as flooding, two months for schools where teachers were absent for various 'shorter-term' reasons, and two months to one year for schools with teachers pursuing professional development with university degrees or certification. One school was recorded as being closed for five years, and subsequently identified as a school that was no longer operational.

3.2.2 Characteristics of teacher and principal absenteeism

Absenteeism of principals

The overall absence of school principals at the time of the survey was 51%. In Papua Province 55% of principals were absent from school, while in West Papua 42% were absent. Figure 10 indicates that geographically, principals had the highest attendance rates in easy-to-access lowland district schools (59%) and urban schools (67%). They had the lowest attendance in highland district schools (33%).

Figure 11. Principal attendance by geographic category



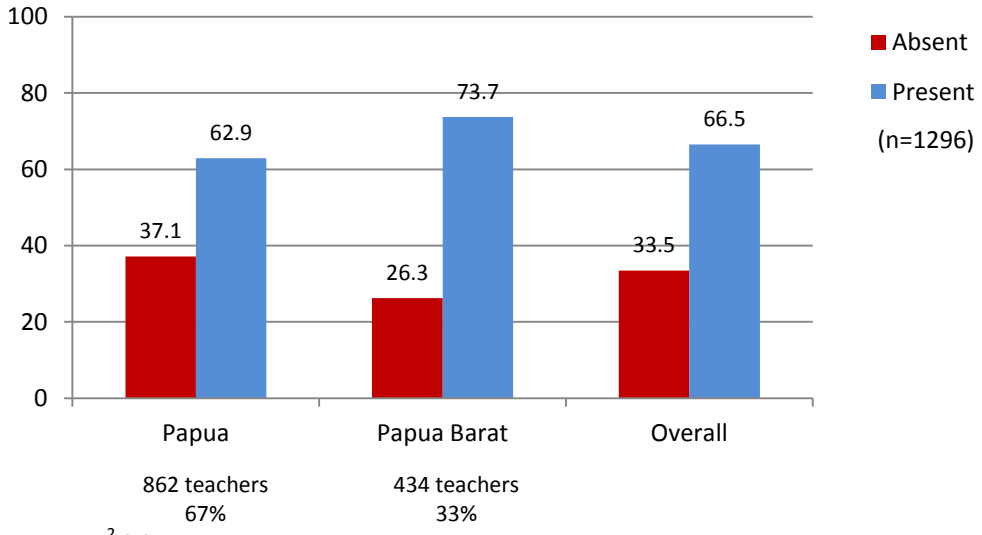
Regarding type of school, principals were absent in 54% of public state schools, 50% private Islamic schools, 44% private Protestant schools and 33% private Catholic schools. Vice principals were present in only 8% of cases where a principal was absent from school. Personnel managing schools in the absence of a principal were teachers (37%), school committee members, and community leaders.

In 73% of the cases, principals were 'excused' for their absence (with permission), 21% were 'unexcused' (without permission) including closed schools, and the rest are unknown. Justifications for 'excused' absences include training/meetings (55%), official duties not related to teaching (16%), family/private matters (9%), and 'other'.

Absenteeism of teachers

This section examines teacher absenteeism rates in terms of overall absence, geographic distribution and type of teacher. Overall absenteeism is further compared against community perceptions on absenteeism.

Figure 12. Teacher absenteeism rates



Pearson Chi^2 (2) =15.273, P<0.001

Of the total number of teachers (Papua and West Papua combined) scheduled or expected to be teaching in classrooms, 33.5% were absent at the time of the survey. This is higher compared to absenteeism rates from surveys conducted in other parts of Indonesia, which have reported around 20% of teachers absent (Toyamah, 2009). Papua province had an overall absenteeism rate of 37%, notably higher than West Papua's 26% (Figure 12).

As shown in Table 6, absenteeism rates also vary across district and sub-district geographic categories. Absenteeism is lowest in easy-to-access districts (23%) and highest in highland districts (49%). Within sub-districts, urban areas have the lowest absenteeism rate at 20%, while rural/isolated sub-districts have the highest, at 43% (Table 6). Absenteeism also varies between different types of schools, from 17% in private Islamic schools (mostly located in easy-to-access lowland and urban areas) to 56% in 'other' schools (Figure 13).

Table 6. Teacher absenteeism by geographic category

District geographic category

	Easy-to-access		Hard-to-access		Highlands		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Present	528	77,4	237	55,8	97	51,3	862	66,5
Absent	**154**	**22,6**	**188**	**44,2**	**92**	**48,7**	**434**	**33,5**
Total	682	100%	425	100%	189	100%	1296	100%

Pearson Chi^2(2)=78.0446, P<0.001

Sub-district geographic category

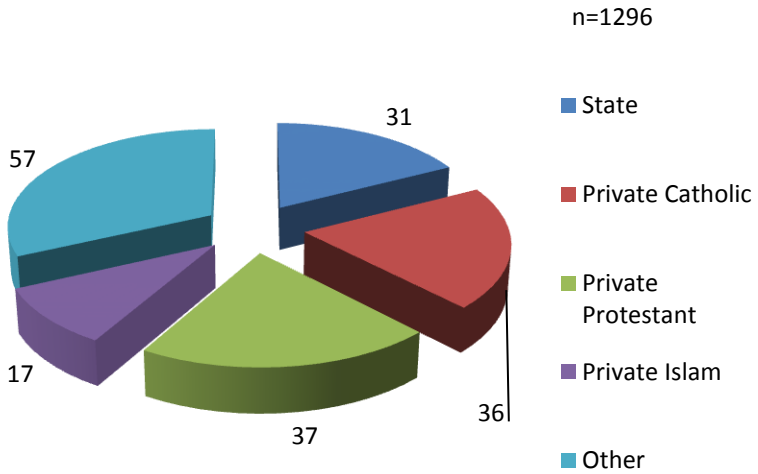
	Urban		Semi-urban		Rural/isolated		Total	
	n	(%)	n	(%)	n	(%)	n	(%)

Present	288	80	231	70	343	56,6	862	66,5
Absent	**72**	**20**	**99**	**30**	**263**	**43,4**	**434**	**33,5**
Total	360	100%	330	100%	606	100%	1296	100%

Pearson $Chi^2(2)=57.9338$, $P<0.001$

A potential factor influencing absenteeism across schools is the contractual status of teachers. This determines their accountability to either the school or 'external' bodies, namely the government. The upward accountability towards the government may dominate over the downward accountability towards the students. This assumption would see PNS teachers more likely to be absent in private schools because, as civil servants, they are accountable to the government (or government-run schools) not the private school foundation and students. Privately managed foundation schools would thus experience difficulties in applying sanctions/controls toward PNS teachers who do not feel accountable to the school. As schools with high proportions of PNS teachers (Table 4), private Protestant and Catholic Schools are indeed experiencing some of the highest absenteeism rates (36% and 37% respectively, Figure 13).

Figure 13. Absenteeism by school type (%)



Pearson Chi2(4)=13.2925, P<0.05

Community perceptions on teacher absenteeism. Field researchers asked community members if teachers are regularly absent from this school to determine to what degree community perception corresponds to school level findings.

More than half of community members (57%) responded that teachers are regularly absent from their schools. In lowland hard-to-access districts 65% of community members reported that teachers are regularly absent from school, in highland districts 57%, and in lowland easy-to-access districts 55%. In urban and semi-urban sub-districts, 50% of community respondents reported that teachers are regularly absent, while in rural/isolated sub-districts 64% reported the same.

Absence by types of teachers. As indicated in Figure 14, the highest rate of absenteeism is among candidate PNS teachers (47%). Most of those absent were from younger age groups

and geographically their absence ranged from 42% to 51% (Figure 23). Regarding candidate PNS teachers, 35% were absent in urban areas, 16% in semi-urban areas and 63% in rural/isolated areas.

Absenteeism among PNS teachers was 32% overall. Geographically, their absenteeism rate was 19% in lowland easy-to-access districts and urban sub-districts. In hard-to-access lowland districts it was 45%, and highland areas 50% (Table 7).

Case Study 1. School Leadership and Teacher Absenteeism

In two schools in Jayapura and Manokwari, community members noted that teachers are absent because of poor leadership of school principals. Weak leadership was manifested in the principal's inability to uphold 'discipline', 'school rules' and act as positive role models for teachers. In both case study schools, respondents explained how previous school principals had successfully managed the schools, which ensured much better student performance and quality of education.

"Almost all teachers feel useless coming to school when the principal is regularly absent."

Previous principals arrived to school earlier than students and teachers, always attended school, actively taught students, promoted extra-curricular learning activities, conducted monthly performance meetings with teachers and regularly communicated with the parents of students. On the other hand, it is reported that current principals are often absent from school, only attend school on payday, hold no monthly meetings with teachers and communicate rarely with the parents.

Some respondents noted that poor school management and bad governance of BOS funds made some teachers reluctant and indifferent to teach children. BOS[15] funds are managed directly by the school principals without accountability to communities or transparency.

"Most teachers get caught up with other activities and are not focused on their main work responsibilities."

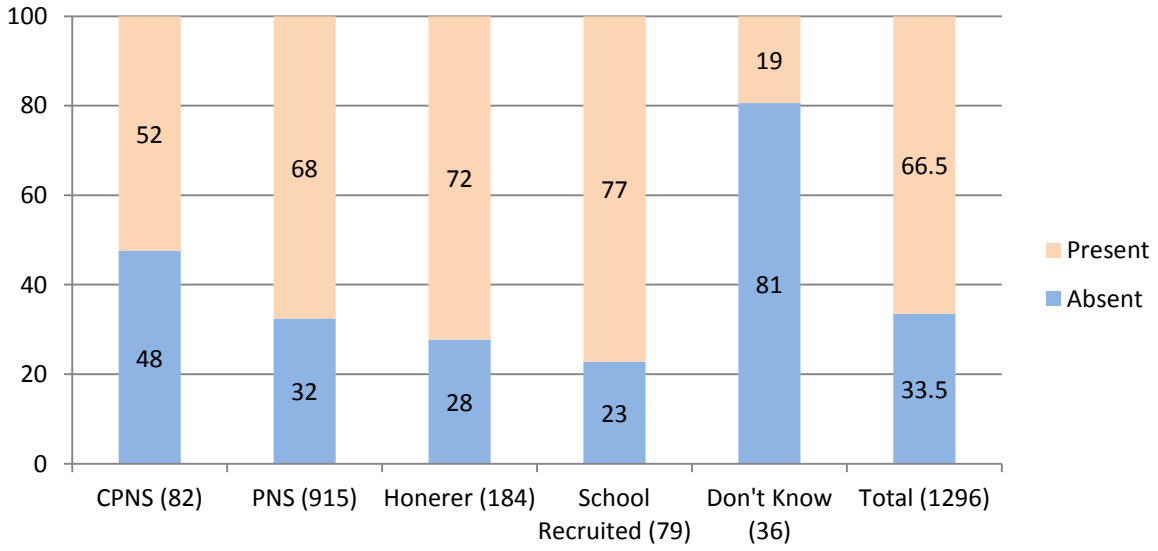
Other commonly cited reasons for teacher absenteeism were teacher preference to live in urban areas, participation in religious activities, and a lack of monitoring by the Ministry of Education.

Many teachers look to their principals for appreciation and motivation, but when this doesn't happen, teachers become disillusioned and feel they have no support.

Photo: Children in a primary school in West Papua waiting for their teacher to arrive at school

Overall absenteeism among honorary teachers was 27%, with the highest rates in highland districts (38%). The salaries of honorary teachers are paid through the 'School Operational Cost' scheme (BOS). This system frequently experiences delays in funding distribution through district government channels, which may have a negative impact on honorary teacher attendance. Honorary teachers typically do not have a strong administrative or legal relationship with schools, and do not receive special incentives to promote regular attendance in school.

Figure 14. Absence by type of teacher (%)



Teachers who are directly recruited by the schools (and therefore accountable to the school) have the lowest overall rate of absenteeism (23%), relative to other types of teachers. This suggests that having greater control over teacher management contributes to lowering teacher absenteeism. Geography is likely another factor, as in urban areas and easy-to-access lowland districts only around 10% of school-recruited teachers were absent. In semi-urban areas 21% were absent, hard-to-access lowland districts and highland districts 28%, and remote/isolated districts 30% (which is significantly lower than absenteeism rates for other types of teachers in the highlands) (Table 7).

Table 7. Absenteeism by type of teacher and geographic categories

		CPNS		PNS		Honerer		School		Don't Know	
		n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Easy-to-access	Present	19	57,6	403	80,1	81	80,2	23	88,5	2	10,5
	Absent	**14**	**42,4**	**100**	**19,9**	**20**	**19,8**	**3**	**11,5**	**17**	**89,4**
	Total	33	100%	503	100%	101	100%	26	100%	19	100%
Hard-to-access	Present	20	48,8	151	54,7	33	63,5	28	71,8	5	29,4
	Absent	**21**	**51,2**	**125**	**45,3**	**19**	**36,5**	**11**	**28,2**	**12**	**70,5**
	Total	41	100%	276	100%	52	100%	39	100%	17	100%
Highlands	Present	4	50	64	47,1	19	61,3	10	71,4		
	Absent	**4**	**50**	**72**	**52,9**	**12**	**38,7**	**4**	**28,6**		
	Total	8	100%	136	100%	31	100%	14	100%		

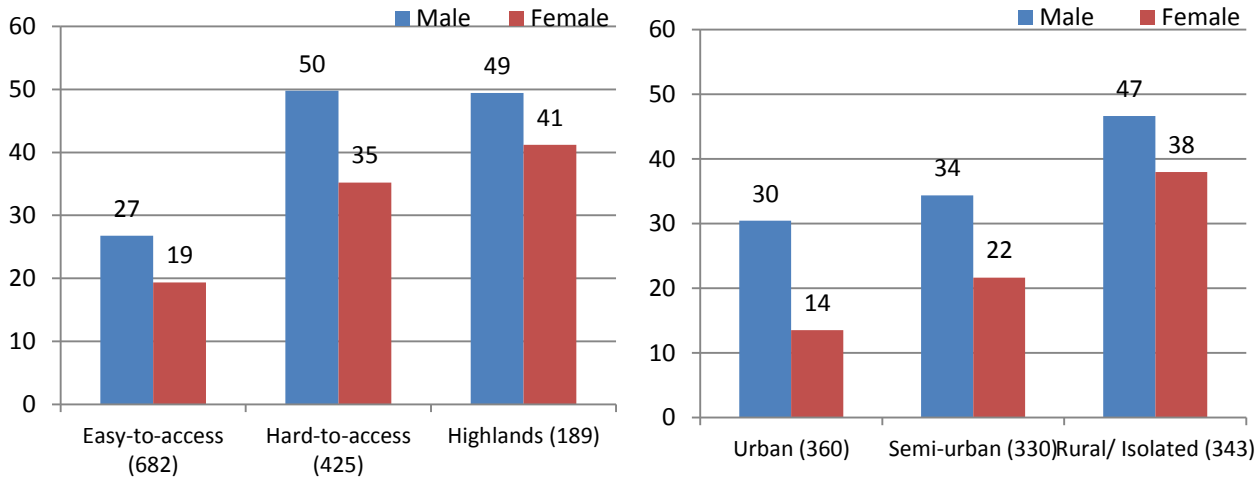
Absenteeism by Teacher Type and Sub-district Category

		CPNS		PNS		Honerer		School Recruited		Don't Know	
		n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Urban	Present	9	64,3	220	80,3	39	79,6	17	89,5	3	75
	Absent	**5**	**35,7**	**54**	**19,7**	**10**	**20,4**	**2**	**10,5**	**1**	**25**
	Total	14	100%	274	100%	49	100%	19	100%	4	100%
Semi-urban	Present	16	84,2	169	68,1	25	80,6	19	79,2	2	25
	Absent	**3**	**15,8**	**79**	**31,9**	**6**	**19,4**	**5**	**20,8**	**6**	**75**
	Total	19	100%	248	100%	31	100%	24	100%	8	100%
Rural/isolated	Present	18	36,7	229	58,3	69	66,3	25	69,4	2	9
	Absent	**31**	**63,3**	**164**	**41,7**	**35**	**33,7**	**11**	**30,6**	**22**	**91**
	Total	49	100%	393	100%	104	100%	36	100%	24	100%

Absence by gender. The results of this study show that male teachers tend to be absent more frequently than female teachers. Overall, 40% of male teachers were absent from school at time of school visits, compared to 25% of female teachers.

As shown in Figure 15, men are also consistently more absent then women across all geographic categories, countering the stereotype that female teachers are 'not able to work in remote or difficult areas'. Although female teachers are more concentrated in urban and easy-to-access areas, findings indicate that a higher proportion of female teachers attend school even in the most inaccessible and remote areas. Female teachers are also least absent in urban areas where they are most concentrated – only some 13% compared to 30% of male teachers. Data shown here thus dispels a long held myth in Papua and West Papua that female teachers are more frequently absent because they are 'weaker' and unable to endure the same hardships as men.

Figure 15. Teacher absenteeism rate by gender and geography (%)

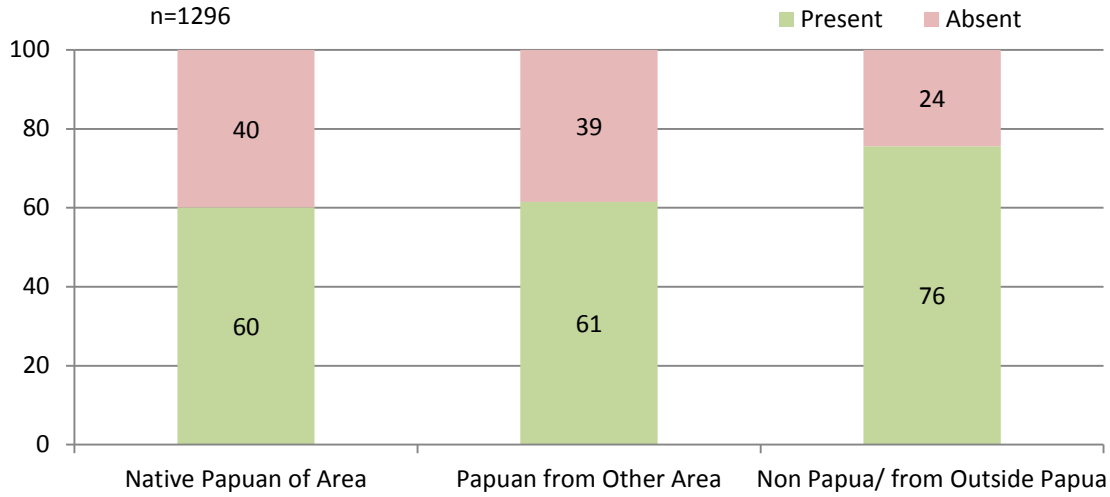


Ethnicity, family, place of origin and absenteeism. Some comparative studies on teacher absenteeism have shown that recruiting local teachers, native to the school area can address a range of educational problems. These include teaching children local knowledge

and culturally relevant material, facilitating learning by using the mother tongue of children, and overcoming teacher absenteeism.

The results of this study, however, show that absenteeism rates were highest among indigenous Papuan teachers who are either native to the location of surveyed schools or indigenous Papuan teachers from other parts of the province. Weighted estimates to account for missing data on absent teachers show that lowest rate of absenteeism was among non-ethnic Papuan teachers (Figure 16). Indigenous Papuan teachers were, however, more frequently located in hard-to-access and isolated areas, whereas non-ethnic Papuan teachers and those from other parts of Indonesia were more frequent in easy-to-access districts and urban areas.

Figure 16. Native, non-native absenteeism (%), weighted estimates



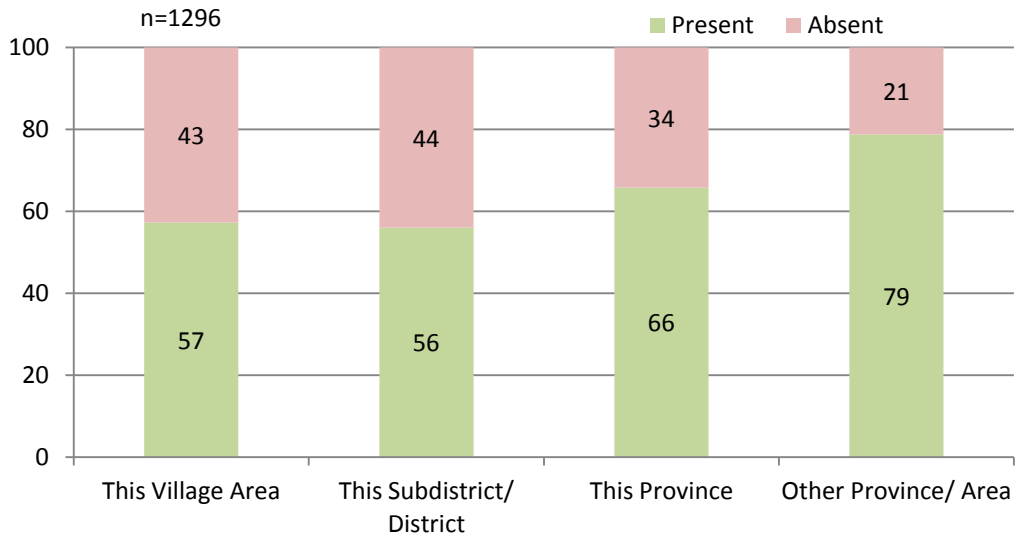
Pearson Chi^2 (3) = 397.642, P<0.001

Based on weighted estimates for the 'place of origin of parents'[16], teachers most absent were those whose parents originate from either the teacher's school village area (43%) or the same sub-district/district as the school (44%) (See Figure 17). Teachers whose parent's origins are within the same province but not the same village or sub-district as the schools had a 34% absenteeism rate, while teachers whose parents originate from outside of Tanah Papua had an absentee rate of 21%.

The non-Papua grouping also has the lowest absentee rate across all district and sub-district geographic categories, including highland districts (24% compared to 40% for native Papuans).

[16] A similar survey question was asked for 'place of birth' of teachers. Because the findings are almost identical as for 'place of origin' this variable is not reported here.

Figure 17. Family origin and absence (%), weighted estimates



Case Study 2. "Torn Apart"

"Nowadays we are like children that have lost the guidance of a mother, torn apart"
a teacher talking about the principal and the whereabouts of other teachers

When visiting this school in Manokwari district, six out of eight teachers were absent and their reasons for absence unknown. Two out of four teachers who reside in the school vicinity were also absent, and nobody seemed to know why or where they had gone. One of them was a local teacher who was reportedly absent from school on a regular basis, something that had been going on since 2007.

One community member praised the high quality of education achieved at the school, led by a former school principal before 2006. During this time, students achieved many victories in various competitions. They emphasized that the principal was from 'outside Papua' and that the community and the teachers viewed him very positively because he was able to show how to teach and manage classes effectively. This experience had many respondents in the school hoping for a new principal from 'outside of Papua' so that good lessons and leadership could once again be shared with the teachers and the community.

Photo: A child in primary school in West Papua, Teacher Absent from school and class empty.

Case Study 3. Living close to school – does it make a difference?

Papua and West Papua may be defying the conventional wisdom that teachers living close to their schools are likely to attend more regularly.

In one village in Jayapura District, all eight teachers working at the school also live in the same village where the school is. However, only one teacher regularly attends school. The main reasons for their absence were 'private conflicts' between teachers and community members, poor condition of teacher housing, teachers 'following' their husbands, or teachers 'handing over' students to other teachers when there is a small number of students attending class. Three out of seven teachers who are regularly absent from school actually live in housing facilities for teachers provided by the government (rumah dinas). Community members and other teachers report that two of those living in rumah dinas have been absent from school for more than three months due to sickness and "personal conflict" with community members.

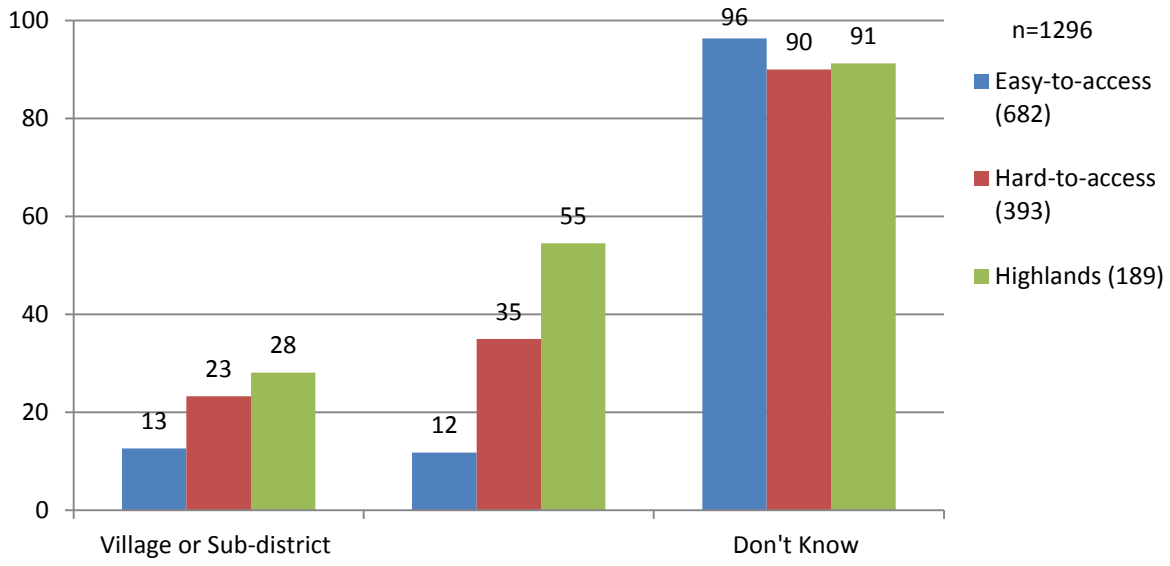
In an equally troubling case study in Manokwari district, four out of seven teachers reside near the school, and two of those who are regularly absent live in houses located less than 100 meters from the school.

Photo: A teacher's home in hard-to-access lowland district, Papua Province.

The survey also asked about the 'current living location' of teachers to explore how proximity to schools affects teacher absenteeism (Figure 18). Survey findings suggest that teachers living close to schools tend to be less absent from school. Whether or not a teacher lives close to a school thus appears to be a strong determinant of whether a teacher is present or absent from school, especially in highland districts and rural/isolated sub-districts.

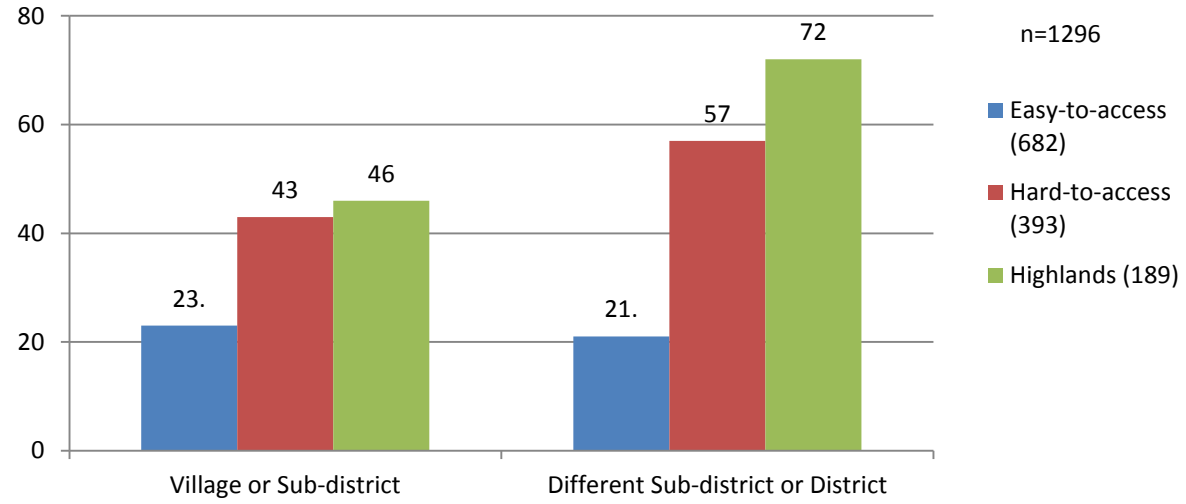
In highland districts, where the overall rate of teacher absenteeism is highest, teachers living in the same village as their school were absent in 22% of cases (Figure 18). Teachers who live in the same sub-district (but not in immediate vicinity of the school) were absent in 44% of cases, and teachers living in other parts of the same district were absent in 55% of the cases.

Figure 18. Living location and absence (%)



After adjusting to estimate for missing data on absent teachers, findings also demonstrate more clearly a relationship between the proximity of teacher residence with rates of teacher absenteeism. Across all district categories ***the further that a teacher lives from the school in which they work, the higher the rates of absence from school***. This is most pronounced in highland districts where rates of absence increase from 46% for teachers who live in the 'same village or sub-district' as their school to a staggering 72% for teachers who live in a 'different sub-district or district' (Figure 19).

Figure 19. Living location and absence (%), weighted estimates



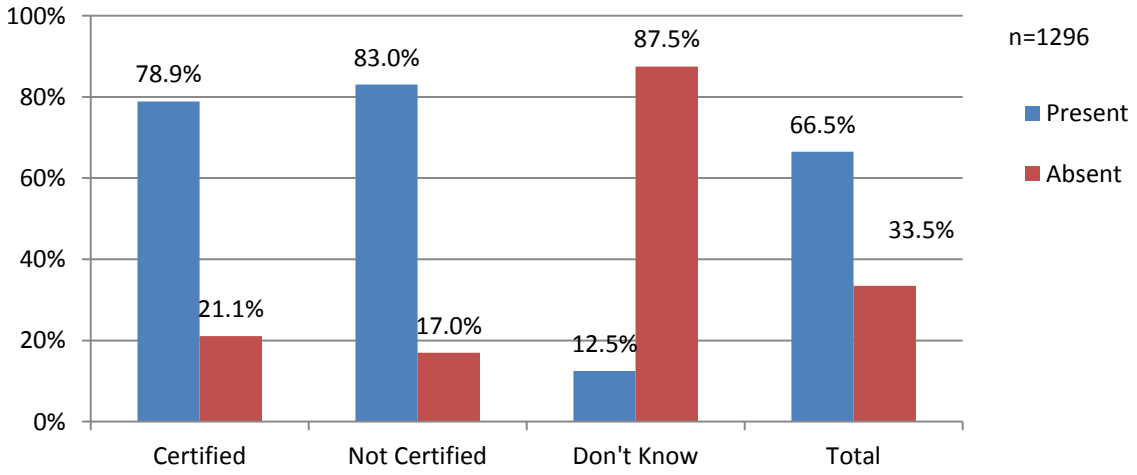
A similar pattern was observed in other district geographic categories (hard-to-access lowland, easy-to-access-lowland). Teachers living in the same village as their school had a 19% absenteeism rate, compared to 25% for those who live further out in the sub-district and 33% of teachers who live in other parts of the same district.

These results do not necessarily demonstrate a strong positive correlation between locally hired teachers and regular school attendance when 'place of origin' is factored in. This

study also found that indigenous ***Papuan teachers originating from local areas are the ones most absent from school, unlike their counterparts from other parts of Papua/West Papua and from outside of Tanah Papua***. Nevertheless, survey findings suggest that those ***teachers living close to schools tend to be more present more than those who live far away from school*** – especially in highland districts and rural/isolated sub-districts.

Teacher certification and education. Papuan academics and policy-makers often argue that education and certification of teachers improves their psychological motivation and should in turn reduce teacher absenteeism. Consequently they advocate teacher certification and other professional development programmes to improve teacher 'professionalism'. This study, however, finds no siginficant correlation between professional certification and higher rates of teacher attendance in school. There is even some evidence of a weak negative correlation between these variables, while indicating that teacher certification programmes have not succeeded in promoting teacher attendance. According to the results of this survey (Figure 20), without applying weighted estimates to account for missing data on absent teachers, the absenteeism rate for certified teachers is 21% and 17% for non-certified teachers. When estimating for absent teachers for which data was not obtained, these rates increase to 38% of certified teachers and 36% of those teachers who have not yet been certified.

Figure 20. Certification and absenteeism



Level of education appears to have an impact on reducing teacher absenteeism. According to the survey results (Figure 21), teachers with university degrees (S1 or S2) had a lower absenteeism rate (17%) compared to those with 'non-diploma' education such as high school or vocational training (22%) or diploma education (23%).

When correcting the data to estimate the characteristics of all absent teachers, findings further show ***that there are singificantly higher rates of absenteeism among teachers who have not completed a university qualification compared to those who have completed a university qualification.*** Rates of absenteeism by geographic categories further show that teachers with university degrees tend to be significantly less absent from school compared to teachers without a university degree. ***In highland districts university-trained teachers were absent in 15% of cases, 'non-diploma' teachers were absent in 50% of cases and***

'diploma' teachers were absent in 35% of cases. In rural/isolated sub-districts 22% of teachers with university degrees were absent, compared to 36% 'non-diploma' teachers and 42% diploma teachers. In urban and semi-urban areas there are few variations between teachers based on education level.

Figure 21. Education level and absenteeism (%)

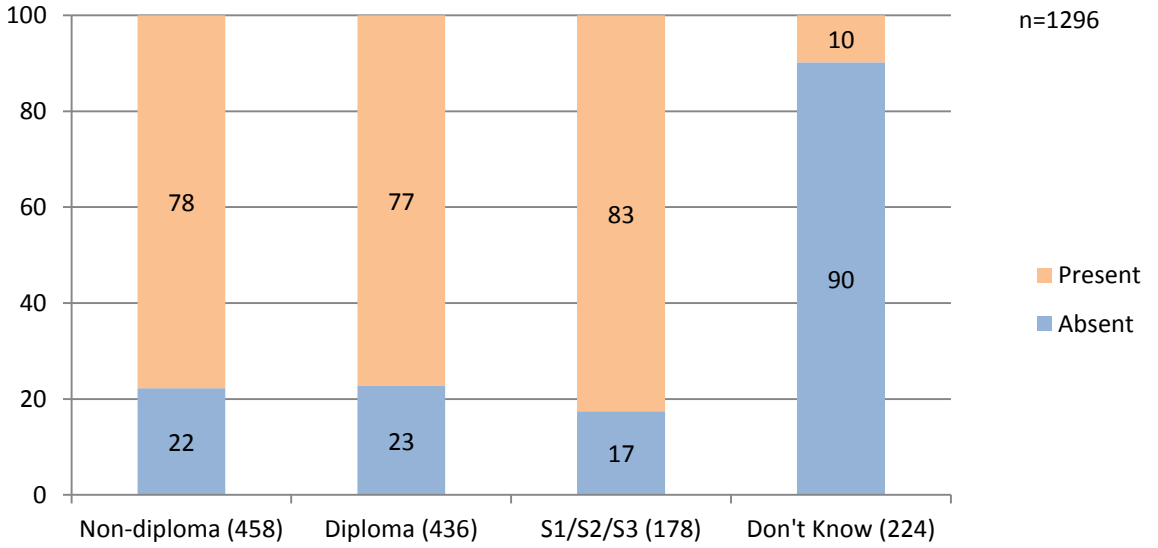
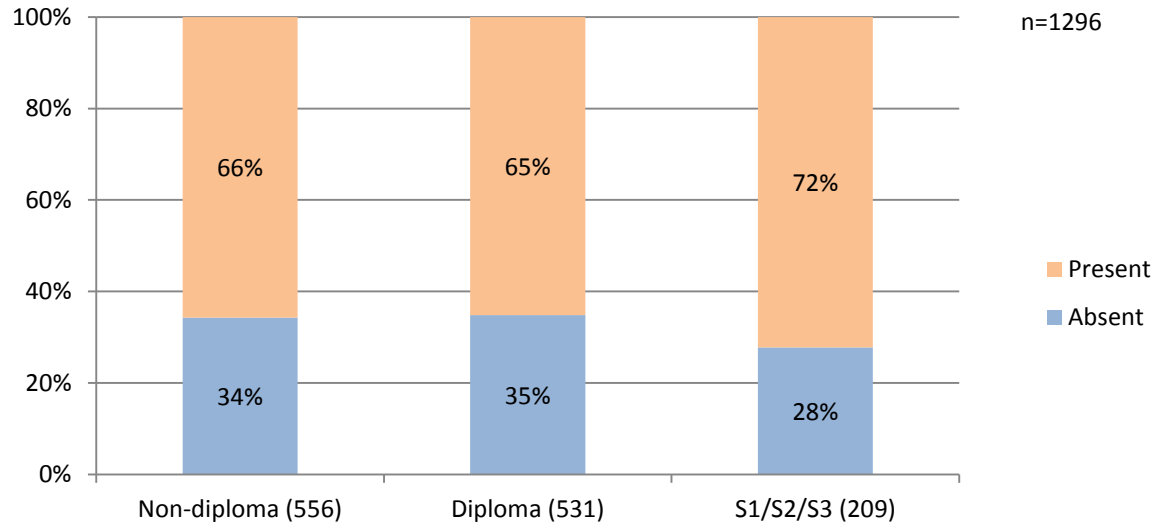
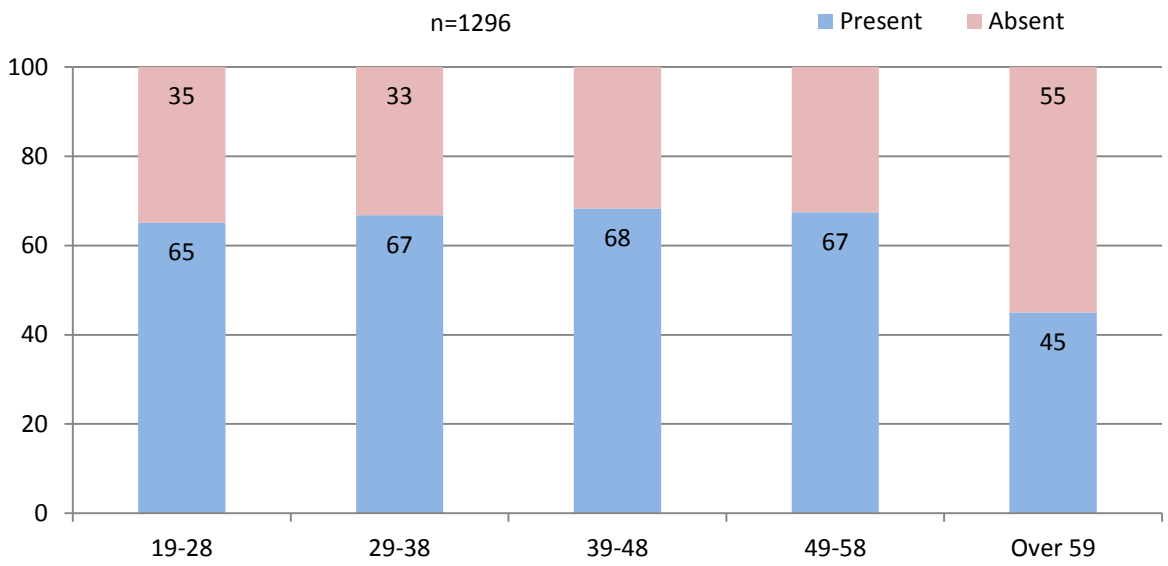


Figure 22. Education level and absenteeism, weighted estimates



Age. The age of teachers seems to have no bearing on the absence of teachers, except for those over 59 years of age, whose absenteeism was higher. As indicated in Figure 23, absenteeism rates for all the age groups was approximately 33%, while it increased to 55% for the 59 year-old and above age group.

Figure 23. Absence by age group (%), weighted estimates



From a geographic perspective, teachers aged 19-28 and those above 59 years of age were most absent in easy-to-access lowland districts, in urban sub-districts and rural/isolated sub-districts.

Marital status and children. Figure 24 shows that overall there is little difference in absenteeism between married and single teachers (34% and 29% respectively). In highland districts married teachers were slightly more absent than single teachers (53% married compared to 42% single). In semi-urban sub-districts there was a 12% difference (30% married compared to 18% single). Urban areas were the only geographic category where single teachers were more absent than married teachers, with a 4% difference.

Figure 24. Marriage and absenteeism (%), weighted estimates

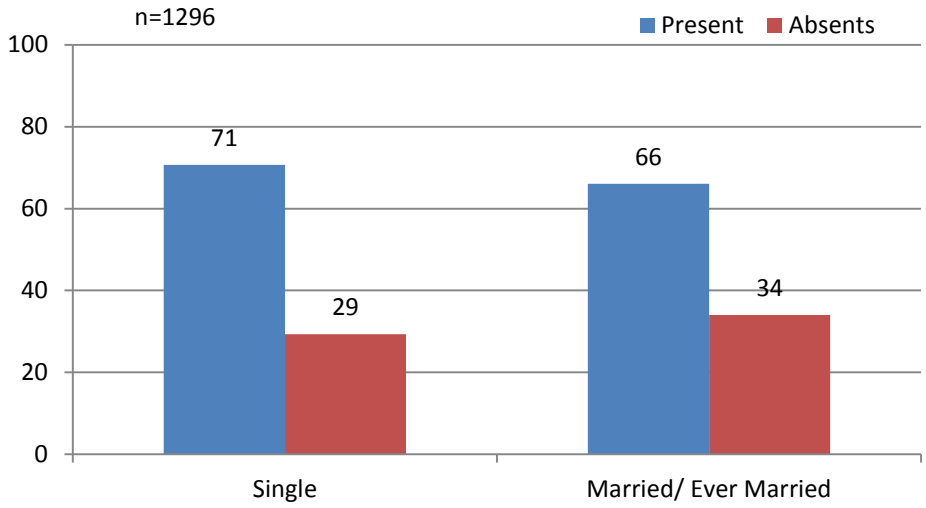
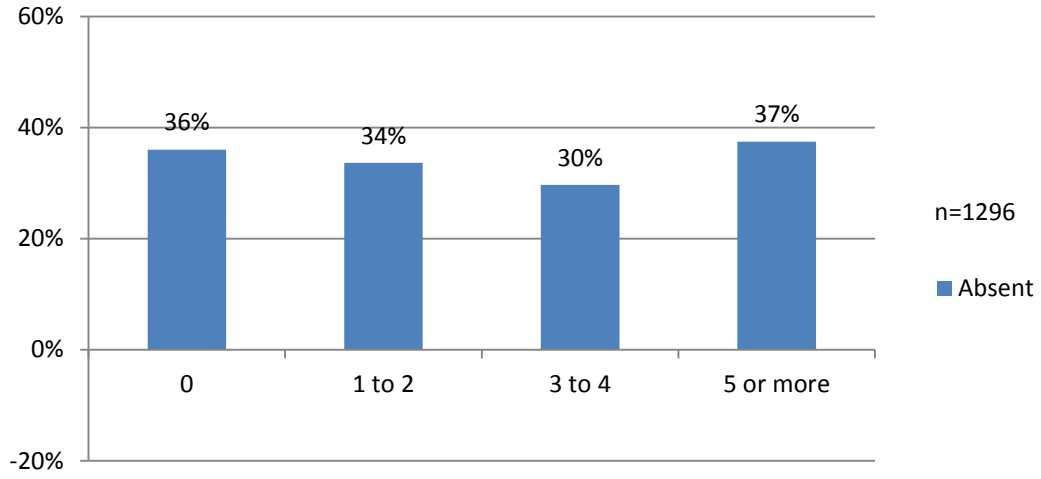


Figure 25. Number of children and absenteeism, weighted estimates



Because most teachers with children are married, there is little difference between rates of absenteeism based on marital status and absenteeism based on the number of children teachers have. Findings also suggest that the number of children does not negatively affect teacher attendance in school. As indicated in Figure 25, teachers without children had a similar absenteeism rate as those with five or more children. Teachers with five or more children were most absent from school, which may indicate they are secondarily employed to support the family, consequently reducing school attendance.

3.3 TYPES OF ABSENCE AND REASONS FOR ABSENCE

Regardless of the reason, the impact of absenteeism is ultimately the same – inconsistent learning, negative role modeling, poor overall education service for children and deepening of existing social inequalities.

(Champman, 2002)

Teacher and principal absence from school is often distinguished between 'excused'[17] and 'unexcused' forms of absence. Comparative country studies show that teacher absence is most often 'excused' and therefore not subject to any sanctions, while 'unexcused' absence signifies more serious abuses of teacher duties. Frequent misuse of 'excused' absences may be related to weak education sector governance and community monitoring systems, regardless of incentive and support systems that may be in place to promote teacher attendance in school (Chapman, 2002 and Chaudhury *et al,*2005). The study found that sanctions on teachers for their absence is rare, and that teacher absenteeism is lowest in

[17] Some studies have even referred to misuse of 'excused' as a form of corruption in the education sector and the "misuse of office for unofficial ends" that impacts significantly on access, quality and equity in education (Ivats p. 12).

places where government conducts routine monitoring and community participation is strong.

Almost half of teachers surveyed in this study and who were absent from school were absent with some form of 'excuse' (47%). Excused forms of absence are highest in remote areas, which suggests that there is much higher tolerance for teacher absence from schools in remote and hard-to-access districts compared to urban areas and easy-to-access districts. However, most forms of excused absence can be easily addressed through the improved management of teachers. Moreover, findings show that sanctions are very rarely applied to teachers and that government monitoring and community participation in school monitoring and management are weak. Nevertheless, findings demonstrate that in cases where government monitoring of schools is applied on a routine basis and community participation is strong, rates of teacher absenteeism are lower than the average.

During the survey, the team noted that some teachers were given permission by the school to be absent even though there was no substitute teacher available. This includes the cases where teachers were away for prolonged periods attending professional development courses. Meanwhile, children were either still coming to school expecting a substitute teacher, or they ceased attending school altogether knowing that no teaching would take place.

In some cases of teacher absence with no substitute present, research teams observed that teachers who were present at the school taught the absentee teacher's class. This created an obvious overburden and reduced their effectiveness in class. Typically the teachers would group several classes into one classroom or they would shuttle back and forth between different classrooms trying to manage several classes at the same time.

3.3.1 Types of absence

To examine different reasons for teacher absence, this study used 'excused' and 'unexcused' categories. 'Excused' teacher absence refers to absence that was granted by the school for legitimate reasons, including reasons beyond the teacher's control (e.g. attending school-related activities outside of school, illness, natural disaster or local conflict). 'Unexcused' teacher absence refers to absence without school permission or legitimate reason. In the context of Papua and West Papua it is sometimes difficult to distinguish between 'excused' and 'unexcused' absence. Teachers will often provide various legitimate reasons (which are often fictive) for being absent from school in order to avoid sanctions. As a result, rates of 'excused' absence need to be regarded cautiously.

To determine length of absence this study used 'short-term' and 'prolonged' categories. Researchers collected temporal information on absentees using five time-slots ranging from one to over 365 days. The general distinction for the 'short term' category was absence up to 30 days, and 'prolonged' was absence exceeding 31 days.

'Unexcused' absence

Of the total number of teachers absent, 53% were 'unexcused'. Based on district categories (Figure 26), the largest proportion of teachers absent without excuse was in easy-to-access districts (62%). In hard-to-access districts 47% were absent without excuse and in highland districts 52%. Across sub-district categories the largest proportion of 'unexcused' teachers

was in rural/isolated sub-districts (59%), followed by urban areas (53%) and semi-urban areas (38%).

Findings show that in lowland easy-to-access districts, where teacher absenteeism rates are lowest, 'unexcused' absence is the highest (Table 8). This may indicate that in these areas teacher absenteeism is not socially acceptable (*keibiasaan*), so teachers who need to be absent do not seek permission for it.

Figure 26. 'Unexcused' absence by geographic categories (%)

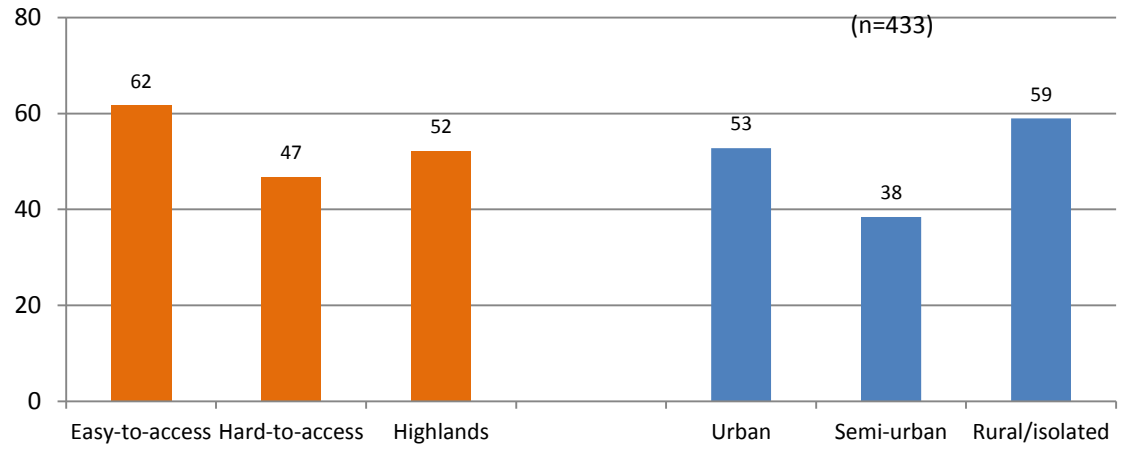


Table 8. 'Unexcused' and 'excused' absence within districts based on sub-district category

Highland

	Urban		Semi-urban		Rural/isolated		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Excused	12	50	18	50	14	43,8	44	47,8%
Unexcused	12	50	18	50	18	56,3	48	52,2%
Total	24	100%	36	100%	32	100%	92	100,0%

Lowland hard-to-access

	Urban		Semi-urban		Rural/isolated		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Excused	16	59,3	33	71,7	51	44,3	100	53,2%
Unexcused	11	40,7	13	28,3	64	55,7	88	46,8%
Total	27	100%	46	100%	115	100%	188	100,0%

Lowland easy-to-access

	Urban		Semi-urban		Rural/isolated		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Excused	6	28,6	10	58,8	43	37,1	59	38,3%
Unexcused	15	71,4	7	41,2	73	62,9	95	61,7%
Total	21	100%	17	100%	116	100%	154	100,0%

Characteristics of 'unexcused' absence. Four different reasons were given during the field survey for 'unexcused' absence: 'do not know', 'absent without permission', 'went home early' and 'expected to arrive late' (Figure 27). Response percentages were calculated based on the total of 433 teachers recorded as absent, 'unexcused' or 'excused'.

The most frequent response was 'do not know' (32%). In this case, survey respondents (principals or other school personnel) who informed us about teacher absentees did not know the reasons for their absence. Although there may have been a legitimate reason for their absence, they were recorded as 'unexcused' because the reason needed to be communicated to the school. Also, given the high rate of principal absence from schools, teachers who were away from school for unknown reasons may have taken advantage of their principal's absence to 'skip school'.

The next most common response for absence was 'absent without permission' (21%). This means the school was not notified. This includes a number of teachers who have been absent for prolonged periods of time. No further explanation was available on the reason for their absence.

A combined 1% of teacher absentees 'went home early' or were 'expected to arrive late'. This includes teachers who were scheduled to teach a class but returned home before survey teams arrived at the school, and teachers who were scheduled to teach a class but had not yet arrived to schools. In both cases this meant that students either did not have a teacher present, or another teacher had to manage multiple classes because there was rarely a substitute teacher system in place.

'Excused' forms of teacher absence

Of the total number of teachers absent, 47% were 'excused' and were cases in which no substitute teacher was made available for children. Based on district categories, the largest proportion of teachers absent with an excuse was in hard-to-access lowland districts (53%), followed by highland districts (48%). Easy-to-access lowland districts had 39% 'excused' absentees. Across sub-district categories the largest proportion of 'excused' teachers was in semi-urban areas (62%), followed by urban areas (47%), and lowest in rural/isolated sub-districts (41%). A higher rate of 'excused' absence in highland and lowland hard-to-access districts indicates there may be higher social and administrative tolerance for teacher absenteeism in these areas.

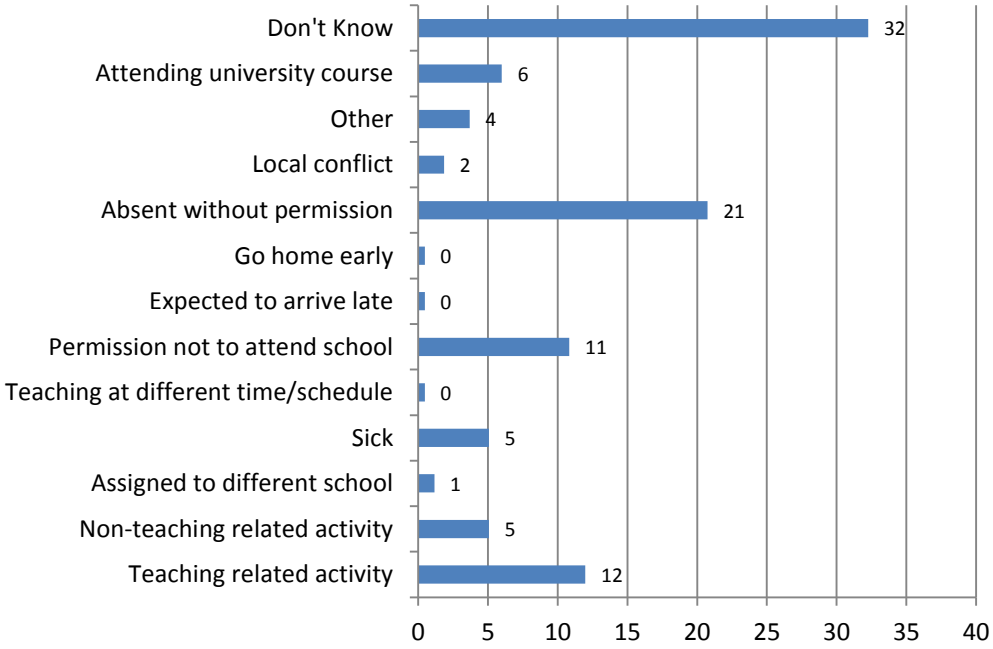
Characteristics of 'excused' absence. Six different reasons were given during the field survey for 'excused' absence: 'teaching-related activities', 'permission to be absent', 'sick', 'non-teaching-related activities', 'scheduled to teach at a different time' and 'assigned to another school' (Figure 26). Response percentages were calculated based on the total of 433 teachers recorded as absent, 'excused' or 'unexcused'.

The most frequent reason for 'excused' absence was 'teaching-related activities' (12%) such as attending training or meetings, and conducting official school business. Of the total absentees, 11% had 'permission to be absent' after they informed the school they were unable to attend because of personal or other reasons. Six percent of absentees were 'excused' because they were attending a professional development or teacher certification course at university. Five percent of teachers were absent due to sickness (including flu and reported cases of malaria), and another 5% due to 'non-teaching related duties'. These

duties included supporting census work, election campaigning and health campaigning. Local conflicts accounted for 2% of absences. There is a strong geographic disparity concerning conflict-induced absences. In highland districts local conflict comprised 15% of 'excused' absences compared to 2% in lowland districts.

Figure 27. Reasons for teacher absence (%)

(n=433)



Less than 1% of teacher absentees were 'excused' with the explanation 'assigned to another school' or 'scheduled to teach at a different time'. In a number of these cases the school had no official documentation provided on teacher transfer, suggesting that teachers were moving between schools outside of official procedures. Although this is reportedly common practice in rural and remote areas, it may point to procedural or management issues. Research teams noted that teachers who arrived late to school commonly used the explanation 'scheduled to teach at a different time' to avoid sanctions.[18] As with other forms of 'excused' absence, no substitute teachers were available to take over absentees' duties.

[18]It is very common that during government or other external monitoring missions teachers arrive after the monitoring teams with the excuse they were 'running late' or similar reasons to justify their absence.

Case Study 4. Social Factors Giving Rise to Absenteeism

In one school in Jayapura District, many community respondents and some teachers argued that the main reason the school principal and teachers are regularly absent from school is because of low 'commitment' to school duties and because of 'low courage' of school staff. Respondents felt that this was caused by 'internal' and 'external' problems for the school, which have not been resolved for a long time.

One teacher in the school has been absent for more than three months due to a 'personal conflict' with local community members. It started with a misunderstanding between a student and a teacher at school and extended over a prolonged period of time, resulting in destruction of the teacher's house. When the teacher asked for compensation for the damages, he was threatened by local community members and decided to leave the rumah dinas and did not teach in the school for several months. Fearing for personal safety and 'shame' with the local community, he refuses to live in the teacher's housing facility located near the school and instead lives in a house located in a different district.

Another teacher has been absent from the school for more than three years because of a prolonged sickness. It was unknown what illness the teacher had, but the school principal insisted that the teacher has been absent because of illness and not some other reason.

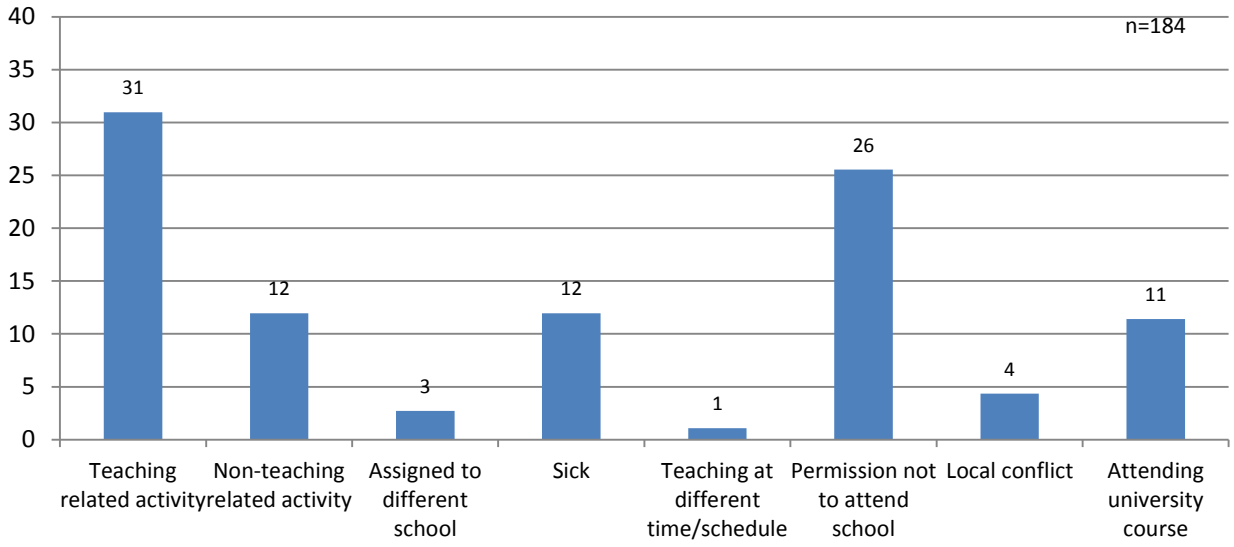
One teacher has been absent regularly because he is been busy feeding his cattle and has a small fishing cultivation business, both of which are used to supplement his teaching salary.

Other teachers in this school are regularly absent because of their involvement in many social and religious activities including PNPM, and Pramuka and Church activities.

Photo: Children in class in Jayapura district – teacher absent from school.

Forms of excused absence. Data regarding excused forms of absence was gathered for 184 teachers (with the remaining teachers falling into the category of 'unexcused' absence). The majority of 'excused' cases of teacher absence is due to teachers being absent from school because of 'teaching related activities' (31% of excused absence). This was followed by official permission for teachers not to attend school (26% of excused absence). Teacher illness comprised 12% of all cases of excused absence, while 'attending university course' comprised over 11% of excused absence. Cases of local conflict comprised only 4% of excused absence. However, it is worth noting that ***in highland districts local conflict comprised almost 15% of excused absence compared to around only 2% in lowland districts***.

Figure 28. Forms of excused teacher absence (%)



Some of the teacher absenteeism issues can be rectified through improved school management such as ensuring availability of substitute teachers and better scheduling. One issue highlighted by the data is the 'excused' absence because of 'teaching-related duties'. Figure 29 shows their breakdown and the most common duties are training and meetings. Although it is unclear what type of training and meetings these are, it should be possible to schedule meeting times around the teaching duties of teachers.

Case Study 5. Prioritising Teacher's Interests Over Children's Rights

As part of government efforts to increase the quality of teachers, Asmat District has supported teachers in completing their certification and obtaining required university qualifications (S1). This strategy has been influenced by the view that the professionalism and 'mentality' of teachers are important factors influencing quality of education for children and promoting teacher attendance in school.

The local government has been implementing a Teacher's Education Upgrading Programme for Primary Teachers (*Pendidikan Guru Sekolah Dasar,* PGSD). The programme is supporting the professional development of around 32% of all civil servant (PNS) teachers (or 160 of 493) who are working in 103 schools spread across 7 sub-districts in Asmat District. These teachers have been participating in this programme through *Kelas Jarak Jauh* (long distance classes), to complete their D2 and S1. Since 2010, the programme has been supported and implemented by Universitas Cenderawasih (UNCEN), a major university servicing Papua Province, with the certification component of the programme conducted in Agats, the capital city of Asmat District.

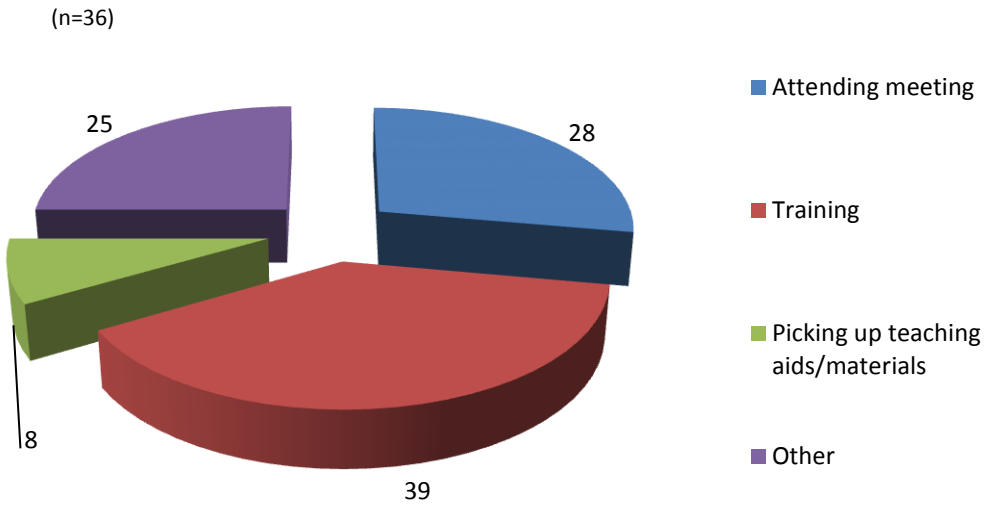
For those teachers who work and live close to Agats, this policy does not seem to create many problems in regularly attending school. This is not the case, however, for teachers who come from remote sub-districts far from Agats. Moreover, when teachers are required to attend professional development training/certification, substitute teachers are not available in their schools. As a result, in many remote schools the government programme has actually led to higher rates of teacher absenteeism and placed greater burdens on contract and volunteer teachers who are not entitled to access these professional development programmes supported by the government. In several sample schools surveyed, it was observed that no teaching was taking place in schools. In fact, community members reported that many children did not attend school because they knew that their teachers were away attending professional development under the Long Distance Learning programme.

District Education officials did not seem aware about the impact of the certification programme. The rationale of district education officials was that the programme was part of broader national and provincial strategy to improve the quality of education at school level and was thus a priority.

Although the district policy was designed to support the improvement of education services at primary school level and improve issues of teacher welfare, it seems to have ignored the rights of children to access education services and instead prioritised teacher welfare and teacher certification.

Photo: Children in primary school in highland district. No teacher present in class and many children absent from school.

Figure 29. 'Teaching related absence' (%)



Another type of 'excused' teacher absence is the case of teachers attending certification programmes at university (Figure 28). Although such programmes may be beneficial for teacher's professional development, they can be organised in a way to minimise lost teaching time for students, either as part-time or with substitute teacher in place.

The largest proportion of activities falling under 'teaching related' duties springs from various trainings. This is followed by teachers 'attending meetings' (although it is unclear why a teacher should be attending a meeting instead of teaching students in a classroom), 'other' school related duties (which may also be easily avoidable since it is assumed that this is often a convenient excuse for teachers to justify not attending school), and finally 'picking up teaching aids/materials'.

Another type of 'excused' teacher absence which suggests that weaknesses exist with the management of teachers is found with cases of ***teachers attending professional development/certification programmes at university.*** The majority of those cases were isolated in lowland-hard-to access districts and due to local government policy for increasing teacher certification. ***Such government programmes appear to have underestimated the negative impacts that such programmes have on teacher attendance*** in school.

A small percentage of teachers were absent from school as a result of non-teaching related duties (12% of all cases of excused absence). Those activities included supporting census work, election campaigning and health campaigning.

Many of cases of 'excused' absence thus appear to be easily avoided with better policy guidelines and teacher management systems. For example, in an environment where rates of absenteeism are very high, it makes little sense for teachers to be away from school to support electoral campaigns. Additionally, almost half of excused teacher absence is caused by poor scheduling of teacher time and weak management systems that result in substitute teachers not being available/recruited to teach children.

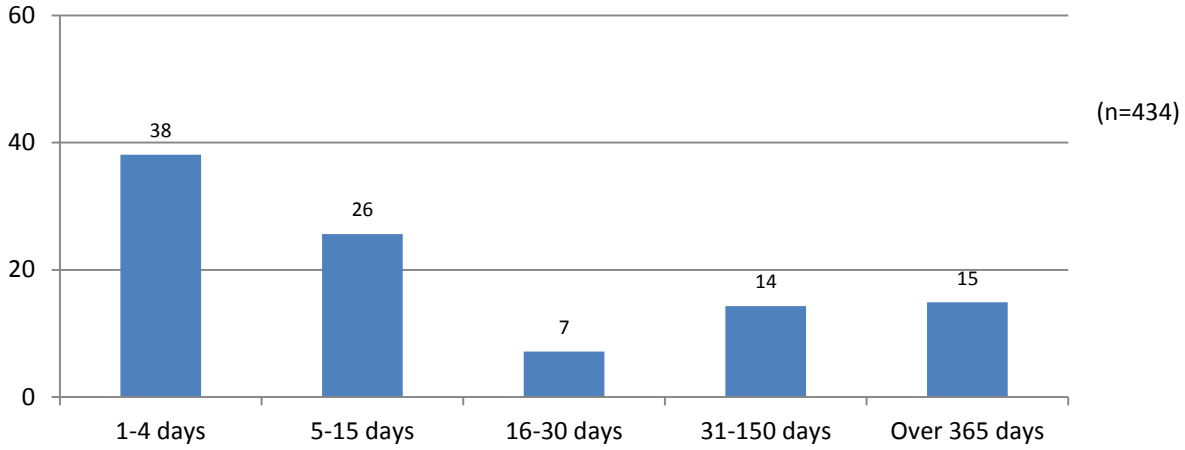
Better management alone of teacher time and duties could decrease the overall rate of teacher absenteeism between 38% and 46%. Such reductions can also be achieved over a very short period of time leading to immediate improvements for children in schools. In fact, possible reductions in the rate of absenteeism due to 'excused' teacher absence is higher if including cases in which teachers are given permission not to attend school. However, as more detailed information was not available for this group of teachers they were excluded from the calculation of 'avoidable' excused teacher absence.

Length of teacher absence. Local duty-bearers often report that prolonged teacher absence is widespread in Tanah Papua. The survey collected information on 168 absent teachers (45% of all absent teachers) to establish what the likely average length of absence is at any given time.[19] The results show that teachers were absent on average 70 days, based on overall sample of absent teachers and the number of consecutive days that they were absent from school prior to the survey.

Figure 30 shows that most absentees (38%) were away an average of 1-4 consecutive days, followed by 26% who were away 5-15 days and 7% who were away 16-30 days (7%). These three groups represent 'short-term' absences. 'Prolonged' absences are comprised of teachers who were away from school for 31-150 days (14%) and over one year (15%). The study also found that most cases of 'short-term' teacher absence were 'excused' absences, and 'prolonged' absences were largely 'unexcused' absences.

As shown in Table 9, ***longer periods of absence are most common in highland districts***. In easy-to-access districts teacher absence is more frequently of shorter duration, and the few cases of 'prolonged' absence are only found in rural/isolated sub-districts.

Figure 30. Length of teacher absence (%)



'Prolonged' teacher absence is also highest in district categories where rates of teacher absenteeism are highest, namely the highlands. These results suggest that approximately

[19] Weighting was conducted to estimate the number of cases under each category of length of absence. Excluding missing cases yielded the exact same percentage as weighting to adjust for missing data for those teachers who were absent from school.

half of the teachers absent in highland districts were absent long-term (in excess of 30 days) and in lowland hard-to-access districts about one third.

Table 9. Length of Teacher Absence by Geographic Category[20]

	Easy-to-access		Hard-to-access		Highlands	
	n	(%)	n	(%)	n	(%)
1-4 days	85	**56%**	61	32%	19	21%
5-15 days	40	26%	53	28%	19	21%
16-30 days	8	5%	17	9%	7	8%
31-150 days	13	8%	22	12%	26	**28%**
Over 365 days	8	5%	36	19%	21	**23%**
Total	153	100%	188	100%	92	100%

Case Study 6. "Mangkir"

"Mangkir" is a term with negative connotations and refers to a 'neglect of duty or responsibility'. It is often used to describe teachers who are away from school for prolonged periods of time.

Prolonged absence is fairly widespread among teachers, especially those in more hard-to-access areas, but it also occurs in easier-to-access districts and even in urban areas. In two case studies in Manokwari and Jayapura districts, there was evidence of prolonged teacher absence and it demonstrated the extent of this problem. In spite of residing near their schools and living in teacher's housing facilities provided by the government, some teachers were absent for weeks, even months, and one teacher was absent for years.

In those schools, shorter periods of absence were usually caused by illness, lack of interest because of infrequent school monitoring by supervisors and government officials, low appreciation from school principals, and teachers nearing pension age.

District education officials generally seemed to understand that these problems occur. However, because of a limited number of school supervisors and insufficient operational funding (explanation most often given for insufficient local government response), these problems appear to be ignored.

Photo: Children socializing in school area – not teacher present at school.

[20] Figures weighted to adjust for missing cases.

3.3.2 Community perceptions of teacher absenteeism

***Reasons for teacher absence*.** The study asked community representatives, namely school committee members or community leaders for their perception on the main reasons for teacher absenteeism. The most common reason given was 'living far from school' (31%). This is consistent with school survey findings that show teachers who live close to the schools attend it more regularly. 'Often suffering illness', 'traveling to town to buy food' and 'difficult transportation' each comprised 13% of responses. These findings reflect teacher social welfare issues highlighted by the case studies compiled for the study. Less frequent reasons listed included 'having other jobs', 'lack of security', 'social conflict', and 'going to town for recreation'.

Case Study 7. Reasons for absenteeism – views of the Head of District Education Office

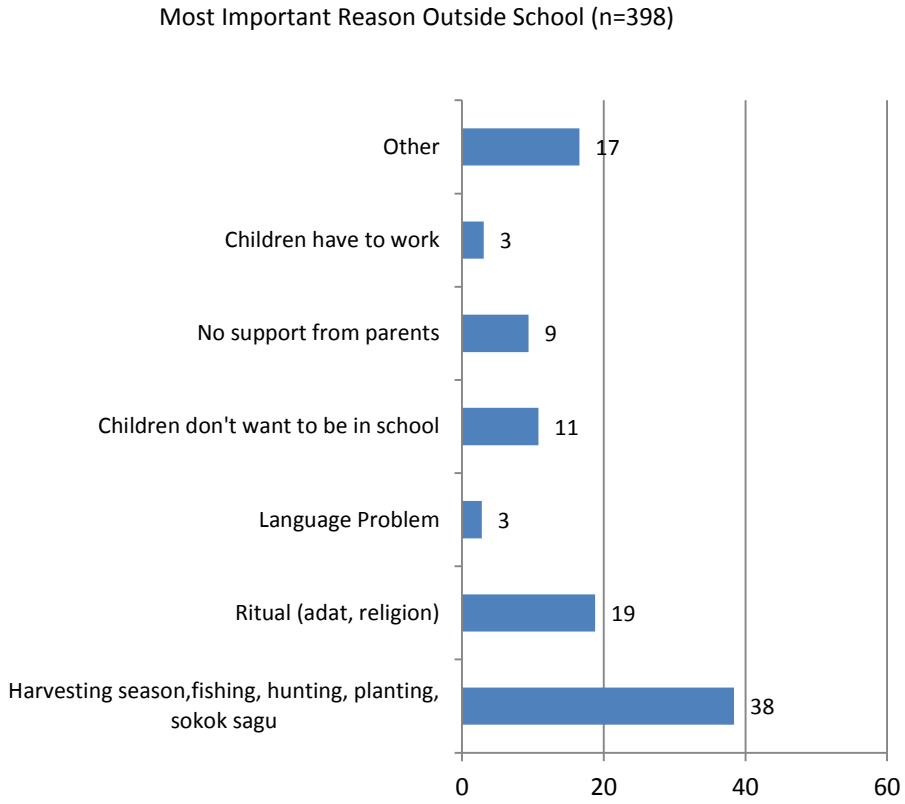
During interviews in Manokwari, a Head of District Education Office noted that (in addition to issues of motivation and teacher discipline) a major factor affecting absenteeism is teacher management (namely methods of promotion), which are handled directly by the District Education Office. He strongly believed that such management issues are the most important reasons for teachers being absent from school in his district.

To overcome this problem, the Head of the Education Office has started a new initiative to simplify the administrative procedures for promotion through a 'collective system of teacher promotion', geared toward supporting teachers in remote areas. "They do not have to come to the Dinas office individually to complete the administrative procedures for promotion, it can be handled collectively". It is hoped that with this policy the process of promoting teachers will not consume a large amount of individual teacher time because only one teacher for a remote area will be responsible for coming to the district education office to complete the process. This policy is expected to begin in 2012.

The Head of the Education Office noted that other important reasons for teachers being absent from remote schools is because some teachers often travel to town to access recreation or entertainment facilities and to look for household items that are not available in remote areas. He viewed this as being related to issues of 'teacher welfare', and is something he feels is very difficult to resolve in a short period of time.

Reasons for absence outside of school. Figure 31 shows the results for community members 'opinion on environmental factors unrelated to school that affect teacher attendance. Most respondents (38%) listed 'harvesting, fishing, hunting, planting, *sokok sagu*' as an outside factor, which is commonly also referred to as the 'second most important reason' overall for teacher absence. These activities are very seasonal and related to subsistence lifestyle in rural areas of Papua and West Papua.

Figure 31. Reasons outside of school affecting attendance (%)



'Ritual' activities related to local customary or religious traditions was listed as an outside factor by 19% of respondents, 'children do not want to be in school' by 10%, 'no support from parents' by 9% and 'children have to work' by 3% of community members.

Some opinions stated in the case studies herein tend to blame children for the absence of teachers from school. Study findings, however, show that children are usually eager to attend school, but over time become demotivated due to persistent teacher absence.

Local conflict and learning as seen by the community. Thirty-two percent of community respondents felt that local conflicts disrupt school operation, and consequently teacher attendance.

As shown in Figure 32, most community members cited 'school land ownership status' as the main form of local conflict (41%). These conflicts usually involve community members, *adat* leaders, and indigenous Papuan land ownership claimants. As a result, access roads often get blocked and schools are forced to close for months at a time. In one Manokwari District for example, indigenous landowners blocked the school entrance for almost two months.

Case Study 8. The Effect of Teacher Absenteeism on Students

The uncertainty of teachers attending school has had a very confusing effect on children. Children do not know which teacher will attend school, what time classes will start, when the school will be open, and which lessons will be taught.

One teacher noted that it is common for students to come to school only to find that their teacher is absent. Students usually stay in the school waiting for up to two hours for the teacher to arrive. After that students will either play with their friends or will just go home by around 10 am because the teacher didn't show up.

Teacher absenteeism has given rise to many quarrels between community members and teachers. For their part, teachers argued that when they come to school students are often absent from class, which makes the teachers feel 'embarrassed' and thus reluctant to come to school on a regular basis.

However, all respondents from the school (community members and teachers) agreed that for students to attend school on a regular basis, the teacher must be at school on a regular basis.

One respondent said: "a teacher who has been absent more than one month would be easily recognised by students and it turns children off from attending school". A school committee member added: "children are courageous to come to school, but they become easily discouraged when they see their teachers regularly absent". The school principal stated "if teachers are motivated and courageous to come to school, students will always be motivated".

Some students also expressed their own views about teachers being absent from school saying "we are happy when teachers are absent for we can play football as much as we want". Another student in Jayapura said, "teacher's absence has made us lazy to be in school". Most students, however, agreed that they would prefer to be learning in class.

Photo: Children playing in classroom in school in West Papua, no teacher present in school.

Twenty-eight percent of respondents cited 'ethnic/tribal conflict' as the main form of local conflict affecting school operation. These entail marriage, land ownership or local resource disputes between villages, and revenge attacks. They often result in violence, creating a social environment in which schools cannot remain open because of security concerns.

Case Study 9. "Spears and Arrows" – Teacher Experiences

A teacher in one school tells of high absenteeism because of a 'hostile' social environment in which teachers experienced regular threats and physical violence. One teacher was quoted as saying: "*Diujung rotan, kini hanya ada tombak dan panah, bukan lagi emas"* (at the top of rattan, nowadays there are only spears and arrows, no longer gold). Because they feared community members, teachers were very reluctant to apply any form of discipline toward students. This included issuing failing grades even if students were not meeting the national curriculum competency standards.

"We are under the threat of parents if their children get failing grades."

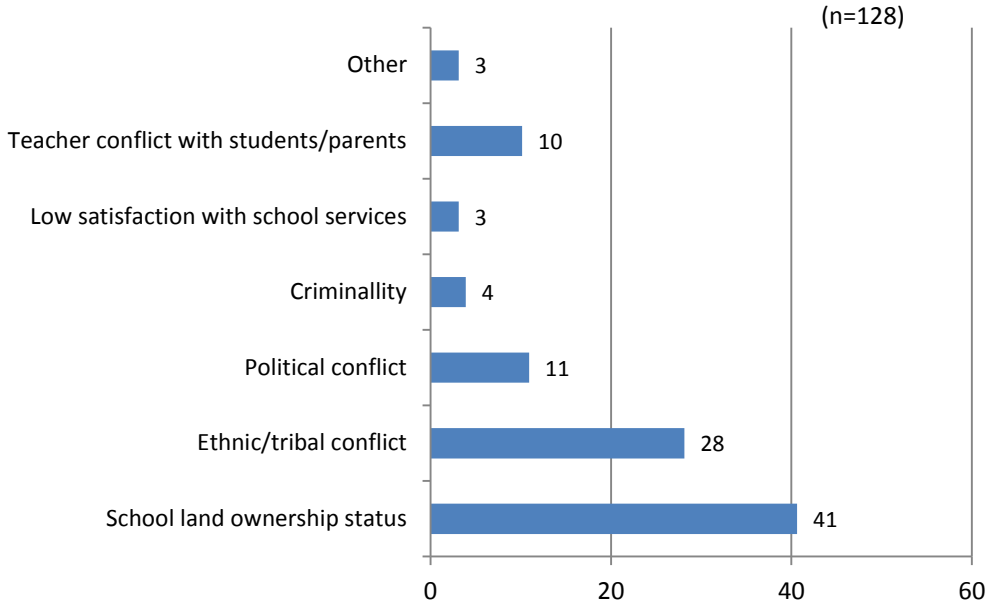
Two teachers from the same school reported that they had once been targets of physical violence from community members. At one point the situation was so bad that teachers went on strike for a period of two weeks to protest against violence and intimidation from community members and parents of students. Since then, teachers have become more uncomfortable, discouraged, and de-motivated to attend school on a regular basis. "This situation has already made most teachers feel very indifferent about teaching and the quality of learning of students in the school", said one teacher.

This school is reportedly located in an area with a high crime rate caused by excessive drinking and conflicts between youth groups. The school lacks fencing to secure school facilities from unwanted entry onto school grounds and class disruption. During daytime the school grounds are often used for cattle grazing, while during evenings they are used for parties and drinking. The school principal has been helpless to stop this behavior or even bring it to the attention of education office officials for fear of community reprisals. The school principal reported a case in Manokwari District in 2009 when community members took refurbished zinc roofs of the school and took newly installed wooden carpentry items from the school to use for their own homes.

In another case study school in Jayapura District, one teacher said he refused to stay in the teacher housing facility provided by the local government because of a conflict with community members dating back to 2006. At one stage his house had been broken into, the doors and windows were broken and smashed, with other items damaged in the home. As a result the teacher is now often absent from school due to security concerns.

Photo: Community members engaged in traditional boat building in area prone to high rates of crime and teacher absenteeism.

Figure 32. Forms of local conflict (%)



Local 'political conflicts' was given as the main form of local conflict by 11% of community respondents. They are most intense during local government elections and occur between rival supporters and are often related to clan rivalries between different ethnic groups.

About 10% of respondents felt it is 'teacher conflict with students/parents' that most affects school operation. This type of conflict usually arises from parental dissatisfaction with student evaluations, failing grades or failure to pass to the next grade. In some cases parents or students will intimidate or physically beat teachers. It can also arise from teacher absenteeism, which parents believe has contributed to their children' poor reading, writing, and arithmetic skills. Other reasons include community perceptions of 'inappropriate behavior toward children', such as sexual or physical abuse.

A smaller number of respondents felt that 'criminality', 'low satisfaction with school services' and 'other' (e.g. not receiving the salary, mismanagement of school funds) are the main type of conflict affecting school operation.

Table 10 shows geographic variations of the types of local conflicts perceived to affect schools most. 'Land ownership status of schools' is most frequently cited in easy-to-access lowland districts with 52%, and least frequently in highland districts with 22%. The situation is reverse with 'ethnic/tribal' conflict, which is most commonly listed in highland districts with 63%, and least in easy-to-access lowland districts with 9%. 'Political conflict' is more frequently listed by respondents from easy-to-access lowland districts (16%) compared to other geographic categories. Respondents in hard-to-access lowland districts list 'teachers conflict with students/parents' significantly more often than elsewhere.

Table 10. Most common local conflict to affect schools by geographic category

	Easy-to-access		Hard-to-access		Highlands		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
School land ownership status	30	**51,7**	**13**	44,8	9	22	52	41%
Ethnic/tribal conflict	5	8,6	5	17,2	26	**63,4**	36	28%
Political conflict	9	**15,5**	**2**	6,9	3	7,3	14	11%
Criminality	3	5,2	1	3,4	1	2,4	5	4%
Low satisfaction with school services	2	3,4	1	3,4	1	2,4	4	3%
Teacher conflict with students/parents	5	8,6	7	**24,1**	**1**	2,4	13	10%
Other	4	6,9					4	3%
	58	100%	29	100%	41	100%	128	100%

	Urban		Semi-urban		Rural/isolated		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
School land ownership status	23	**46**	**14**	34,1	15	40,5	52	41%
Ethnic/tribal conflict	5	10	20	**48,8**	**11**	**29,7**	36	
Political conflict	9	**18**	**2**	4,9	3	8,1	14	11%
Criminality	4	8	1	2,4			5	4%
Low satisfaction with school services	3	6	1	2,4			4	3%
Teacher conflict with students/parents	3	6	3	7,3	7	**18,9**	13	10%
Other	3	6			1	2,7	4	3%
	50	100%	41	100%	37	100%	128	100%

3.3.3 Incentives

Previous studies in Indonesia show that local government policy instruments have been successful in reducing teacher absenteeism. These include effective incentive, sanction and monitoring systems (Toyamah, 2009). In Papua and West Papua, various incentives and types of support have been implemented at national, provincial and district level, such as increased pay for teachers, provision of housing and remote area allowances. This section explores their effectiveness in promoting teacher attendance.

Two types of incentives teachers receive from the central, provincial and district government are cash incentives and facilities support. Cash incentives include welfare assistance, *lauk-pauk* (small food subsidy), 'salary top-up', overtime pay, remote area allowance and transportation allowance. Facilities support refers to teacher housing. Welfare assistance and *lauk-pauk* have been in existence since 1984, while overtime pay was introduced in 2009 for teachers who work more than 40 hours per week.

Cash incentives. Of 682 teachers surveyed, 58% had received some kind of cash incentive since they started working at their current school. By district geographic categories, lowland districts have a higher proportion of teachers receiving incentives than the highland districts (Table 11).

Table 11. Receipt of incentives by district geographic category

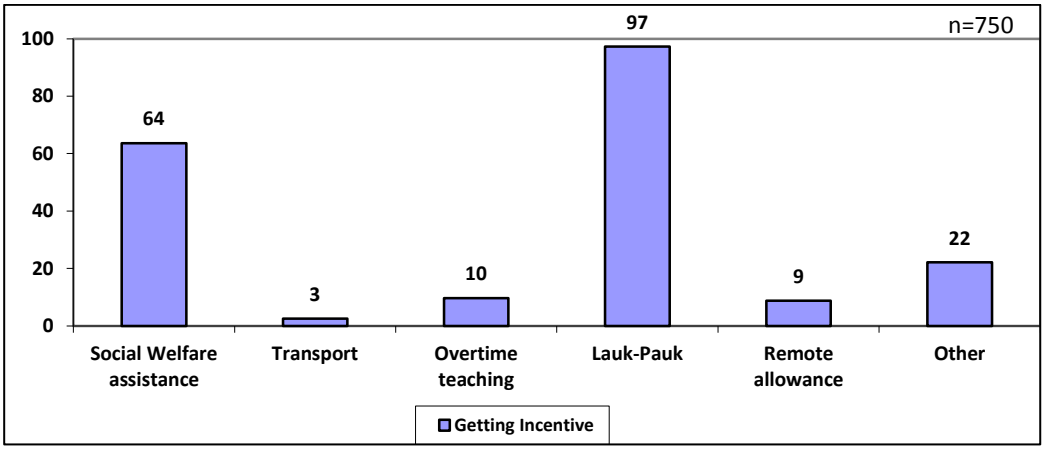
	Easy-to-access		Hard-to-access		Highlands		Total	
	n	%	n	%	n	%	n	%
Yes	432	63.3%	216	50.8%	102	54.0%	750	57.87%
No	127	18.6%	73	17.2%	23	12.2%	223	17.21%
don't know	123	18.0%	136	32.0%	64	33.9%	323	24.92%
Total	682	100.0%	425	100.0%	189	100.0%	1296	100.00%

N= 1296, Pearson (4): 38.838, P <0.05

Figure 33 shows that *lauk-pauk* was the most commonly received incentive (97%), followed by welfare assistance received by 64% of teachers, overtime pay by 10%, remote allowance by 9%, transport allowance by 3% and the remainder received other types of assistance.

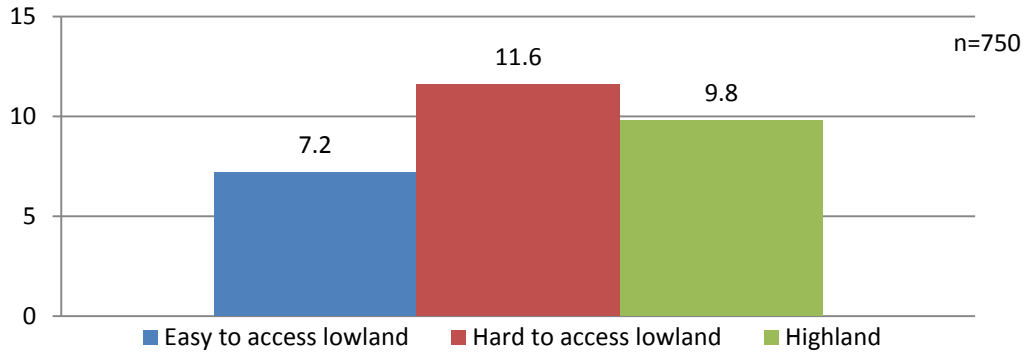
During the survey, many respondents were hesitant to respond to the question on incentives because they were not sure where they received their incentives from, when they should receive it and the amount they were entitled to. The study also found variations on the disbursement mechanism between districts. For example, in Jayapura district *lauk-pauk* is calculated at a rate of Rp. 8,000/day per teacher and provided together with welfare assistance. In Merauke and Manokwari districts, *lauk-pauk* is calculated at a rate of Rp. 10,000-25,000/day and provided separately.

Figure 33. Types of incentives received (%)



Relatively few teachers received remote area allowance compared to welfare assistance and lauk-pauk. By geographic category, 10% of teachers in highland districts received remote area allowance, compared to 12% in hard-to-access districts and 7% in lowland easy-to-access districts (Figure 34).

Figure 34. Percentage of teachers receiving remote area allowance (%)



Sources of teacher assistance.

Table 12 shows the sources of funding for teacher incentives. The largest proportion of assistance overall comes from district governments. Provincial governments mostly support transportation and remote area allowance, while the national government mostly funds overtime pay and welfare assistance. Other sources include special autonomy funds from the provincial government, school BOS funding and other minor sources.

Table 12. Sources of teacher incentive funding

Budget Sources	Welfare Assistance		Transportation Allowance		Overtime Pay		Lauk-Pauk		Remote area Allowance		Others	
	N	%	N	%	N	%	N	%	N	%	N	%
Central Government	75	14.1%	3	7.7%	25	20.5%	12	2.8%	4	5.3%	27	15.4%
Provincial Government	45	8.6%	12	30.8%	8	6.6%	12	2.8%	27	38.6%	21	12.0%
District Government	374	71.4%	13	33.3%	54	44.3%	370	86.4%	32	45.7%	99	56.6%
Otsus Fund	10	1.9%	5	12.8%	4	3.3%	25	5.8%	1	1.4%	0	0.0%
Schools	18	3.4%	5	12.8%	28	23.0%	7	1.6%	6	8.6%	15	8.6%
Others	3	0.6%	1	2.6%	3	2.5%	2	0.5%	0	0.0%	13	7.4%

Housing support. Provincial governments have made a large investment in teacher housing to support teachers in rural and remote areas. Government-built housing is an incentive designed to promote teacher attendance at school by providing homes close to their schools and to improve teacher welfare. Survey data shows, however, that ***only 25% of teachers actually reside in government housing***.

Some district governments have made efforts to increase the availability of housing facilities for teachers. Merauke district, for example, reported they are planning to build about 80 teacher homes from the 2011/2012 district budget. It plans to have a minimum of one government-built teacher house per school by 2015. Research has also found that

insufficient supply of government housing may not be the only issue. Some teachers reportedly declined to live in them because of poor quality.

3.3.4 Government monitoring

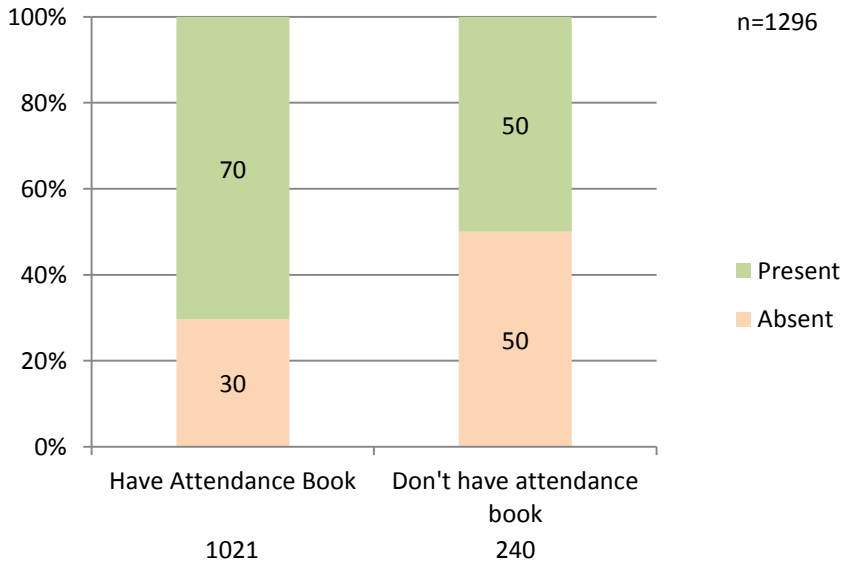
This section looks at administrative monitoring of teachers, government monitoring of schools, and school distance to education ministry offices as proxy indicator for monitoring.

Teacher attendance book. School attendance records, such as teacher attendance books are administrative instruments that can assist in promoting teacher attendance. They are also useful in conducting performance reviews, promotions and school-level monitoring of teachers. To gauge school diligence in monitoring teachers, the field survey asked whether schools have teacher attendance books, verified whether schools had a teacher attendance book, and how frequently it was updated.

Of all the schools, 77% reported keeping a teacher attendance book but only 58% could physically show it. The highest percentage of schools that could show the attendance book were those with the principal present (68%), compared to 58% with the vice-principal present and 43% with neither of them present.

Survey results show little difference in teacher absenteeism between the schools that claim to have a teacher attendance book but cannot show it and those that are physically able to show it (26% compared to 30%). Figure 35, however, shows ***there is a significant difference between schools that do keep an attendance book and those that do not (30% compared to 50%).***

Figure 35. Teacher absenteeism rate and teacher attendance books (%)



Geographically stratified data also shows that having a teacher attendance book is positively correlated to teacher attendance, across the board (Table 13). Schools that kept a teacher attendance book had a consistently lower rate of absenteeism in all district geographic categories by approximately 10% to 25%. Within sub-district geographic categories, schools with an attendance book had approximately 17% to 25% lower absenteeism rates.

Table 13. Teacher absenteeism rate and teacher attendance books by geographic category

Absenteeism by District Category

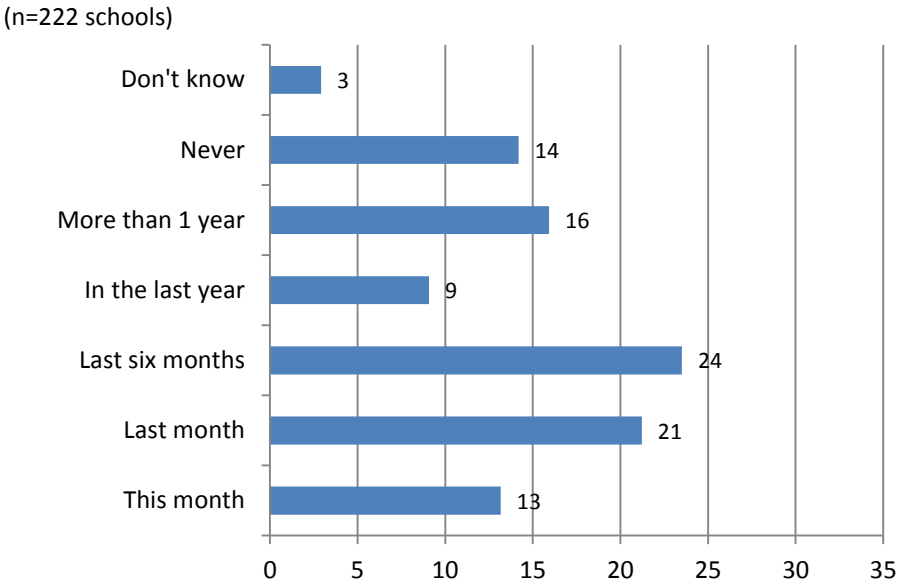
		Easy-to-access		Hard-to-access		Highlands		Overall Total	
		n	(%)	n	(%)	n	(%)	n	(%)
Have book	Absent	117	20%	155	41%	31	53%	303	23%
	Present	469	80%	222	59%	47	80%	738	57%
	sub-total	586		377		78		1041	
Do not have book	Absent	**36**	**38%**	**32**	**67%**	**59**	**53%**	**127**	**10%**
	Present	**60**	**63%**	**16**	**33%**	**52**	**47%**	**128**	**10%**
	sub-total	**96**		**48**		**111**		**255**	
Overall Total		682	**100%**	425	**100%**	189	**100%**	1296	100%
Mean absence rate		22%		44%		48%		33,50%	

Absenteeism by Sub-district Category

		Urban		Semi-urban		Rural/isolated		Overall Total	
		n	(%)	n	(%)	n	(%)	n	(%)
Have book	Absent	47	16%	69	26%	187	39%	303	23%
	Present	249	84%	201	74%	288	61%	738	57%
	Sub-total	296		270		475			
Do not have book	Absent	**25**	**39%**	**28**	**45%**	**74**	**57%**	**127**	**10%**
	Present	**39**	**61%**	**34**	**55%**	**55**	**43%**	**128**	**10%**
	Sub-total	**64**		**62**		**129**			
Overall Total		**360**	**100%**	**332**	**100%**	**604**	**100%**	**1296**	**100,00%**
Mean absence rate		20%		30%		43%		33,50%	

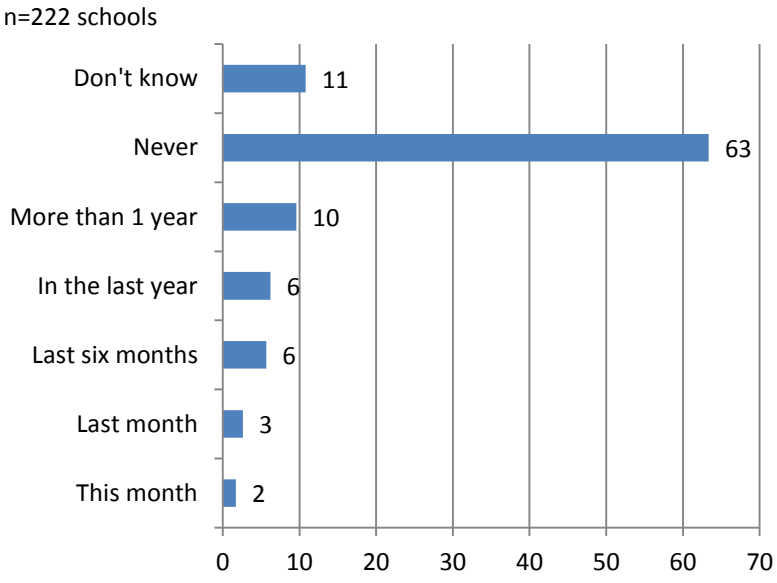
Monitoring by Ministry of Education. Field researchers collected information from 222 schools about the last time an education official visited the school. Results show that officials visited 13% of schools in the same month as the survey, 21% of schools in the month prior to the survey, 24% schools in the previous six months and 9% up to one year prior to the survey (Figure 36). Education officials had not visited 16% of the schools surveyed in over a year, and had never visited 14% of them. There were 10% more cases of schools that were never visited in Papua province than West Papua.

Figure 36. Last time visited by education official (%)



Schools were also asked when the last time an education ministry official came to school to provide training or resource materials, 63% of schools reported never being visited. Six percent of schools reported a visit in the last six months, 6% in the last two months, 6% in the last year and 10% more than one year (Figure 37). Most of those visits coincided with school monitoring visits from the education ministry.

Figure 37. Last time training/resource materials provided (%)



From a geographic perspective, government monitoring is least frequent in isolated parts of Papua and West Papua. Almost a third of highland districts schools were visited only once in the past year, and another third were never visited. Easy-to-access districts had more frequent and recent visits by education ministry officials. The same pattern was observed for schools in sub-district categories with rural/isolated schools being visited less frequently (Table 1).

Table 14. Last time school visited by education official by geographic category

District Category

	This month		Last month		Last six months		In the last year		More than 1 year		Never		Don't Know		Total	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Easy-to-access	20	18,3	24	22	31	28,4	9	8,3	12	11	11	10	2	1,8	109	100%
Hard-to-access	5	6,8	17	23,2	16	21,9	8	10,6	14	**19,7**	**12**	**16,4**	**1**	**1,3**	**73**	100%
Highlands	1	2,5	5	12,5	5	12,5	4	10	9	**22,5**	**12**	**30,7**	**3**	**10**	**40**	100%

Sub-district Category

	This month		Last month		Last six months		In the last year		More than 1 year		Never		Don't Know		Total	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Urban	9	16,9	15	27,7	13	24	5	9,2	6	**11,1**	**5**	**9,2**	**1**	**1,8**	**54**	100%
Semi-urban	11	18	11	18	13	21,3	5	8,1	8	**13,1**	**10**	**16,3**	**3**	**4,9**	**62**	100%
Rural/isolated	6	5,6	20	18,9	26	24,5	11	10,3	20	**18,8**	**20**	**18,8**	**3**	**2,8**	**106**	100%

Table 15. Monitoring by education officials and absenteeism by district geographic categories

Monitoring by education officials and absenteeism by district category

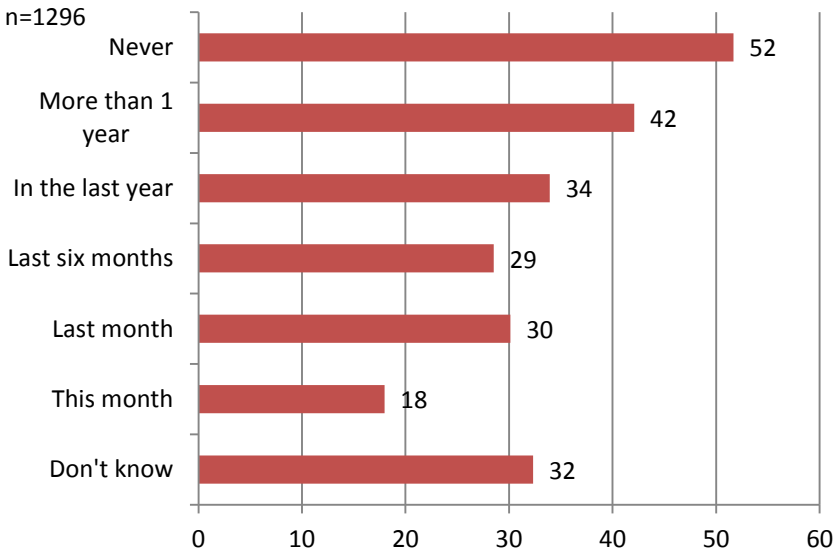
		This month		Last month		Last six months		In the last year		More than 1 year		Never		Don't Know	
		n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Easy-to-access	Absent	19	14,6	23	14,8	50	27,5	17	**31,5**	**14**	23,7	17	**28,3**	**14**	**33,3**
	Present	111	85,3	132	85,1	132	72,5	37	**68,5**	**45**	76,2	43	**71,6**	**28**	**66.7**
	Total	*130*	*100*	*155*	*100*	*182*	*100*	*54*	*100*	***59***	*100*	*60*	*100*	***42***	*100*
Hard-to-access	Absent	9	27,3	51	**52,6**	**31**	33	17	**37,8**	**41**	**47,1**	**39**	**62,9**		
	Present	24	72,7	46	**47,4**	**63**	67	28	**62,2**	**46**	**52,8**	**23**	**37**	7	**100**
	Total	*33*		*97*	*100*	*94*	*100*	*45*	*100*	*87*	*100*	*62*	*100*	*7*	*100*
Highlands	Absent	2	**50**	**7**	41,2	4	18,2	5	**31,3**	**30**	**53,6**	**37**	**63,8**	**7**	**43,3**
	Present	2	**50**	**10**	58,8	18	81,8	11	**68,7**	**26**	**46,4**	**21**	**36,2**	**9**	**56,2**
	Total	*4*	*100*	*17*	*100*	*22*	*100*	*16*	*100*	*56*	*100*	*58*	*100*	*16*	*100*

Monitoring by education officials and absenteeism by sub-district category

		This month		Last month		Last six months		In the last year		More than 1 year		Never		Don't Know	
		n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Urban	Absent	8	13,1	15	14,4	11	12,9	11	**35,5**	**10**	**23,8**	**17**	**56,7**		
	Present	53	86,6	89	85,5	74	87	20	**64,5**	**32**	**76,1**	**13**	**43,3**	7	**100**
	Total	*61*	*100*	*104*	*100*	*85*	*100*	*31*	*100*	*42*	*100*	*30*	*100*	*7*	*100*
Semi-urban	Absent	11	15,7	19	**33,9**	**21**	26,6	2	10,5	21	**43,8**	**20**	**43,5**	**5**	**41,6**
	Present	59	84,2	37	**66,1**	**58**	73,4	17	89,4	27	**56,2**	**26**	**56,5**	7	**58,3**
	Total	*70*	*100*	*56*	*100*	*79*	*100*	*19*	*100*	*48*	*100*	*46*	*100*	*12*	*100*
Rural/isolated	Absent	11	30,6	47	**43,1**	**53**	39,6	26	40	54	**48,2**	**56**	**53,8**	**16**	**34,7**
	Present	25	69,4	62	**56,8**	**81**	60,4	39	60	58	**51,7**	**48**	**46,1**	30	**65,2**
	Total	*36*	*100*	*109*	*100*	*134*	*100*	*65*	*100*	*112*	*100*	*104*	*100*	*46*	*100*

Results on the comparison of monitoring frequency and teacher absenteeism suggest that frequently monitored schools have higher teacher attendance. As indicated in Figure 38, ***schools that were never visited by an education official had the highest rate of teacher absenteeism, and schools that were visited in the past month had the lowest rate of absenteeism***.

Figure 38. Frequency of monitoring and absenteeism rates (%)



Pearson Chi^2 = 61.708, P<.005

Figure 38 cross-references teacher absenteeism in schools across geographic categories with frequency of government monitoring. It shows that teacher absenteeism rates are highest in least or never visited schools located in highland districts or rural/isolated sub-districts.

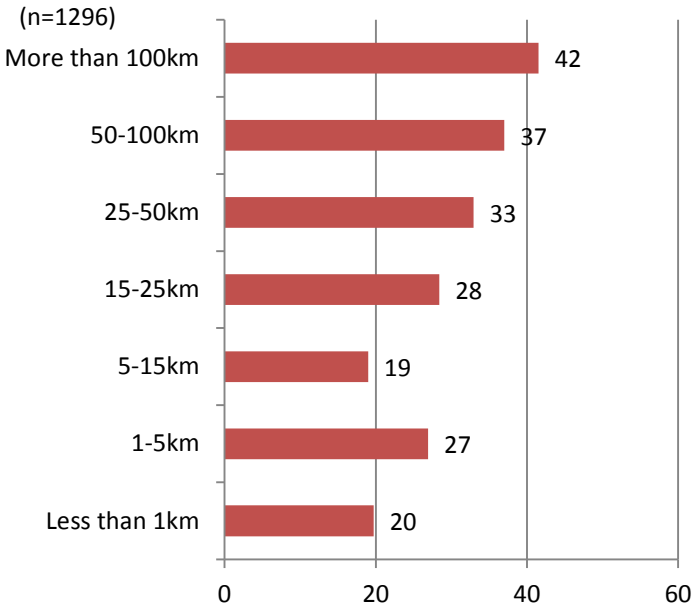
Because of the large size and difficult topography of most regions in Papua and West Papua, frequency of monitoring is closely tied to the distance of schools from government education offices. Limited monitoring capacity is thus often attributed to low number of supervisory staff, most of whom are located in district capitals rather than in remote areas. In addition, supervisors often lack sufficient transportation and operational funds to visit schools on a routine basis.

The issue of distance from the government education office is related to institutional reforms, which after 1999 decentralized authority to districts for managing basic public services. In the process the central government abolished sub-district authority (including sub-district education offices) in an effort to improve the cumbersome bureaucratic structure of the old government.

The impact was essentially ***'centralization' of authority from local community level to the district government.*** This weakened the capacity of local governments to provide basic public services and effectively monitor their delivery. This contradiction in the process of

decentralization is particularly pronounced in Papua and West Papua because of difficult geographic conditions. This is reflected in the relationship between distance from the nearest government education office, monitoring frequency and consequently rates of teacher absenteeism.

Figure 39. Distance to education office (%)



Pearson Chi^2 = 120.603, P<.05

Figure 39 indicates that rates of teacher absenteeism are lowest in schools located up to 15 km from the nearest education office (19-27%). Absenteeism rates steadily increase with the increase in distance from a government education office, reaching 41% in schools located more than 100 kilometers away. The same pattern is repeated in every district and sub-district category. Many of the schools that are furthest away and experience the highest rates of teacher absenteeism are also the schools that have never been monitored by a government official.

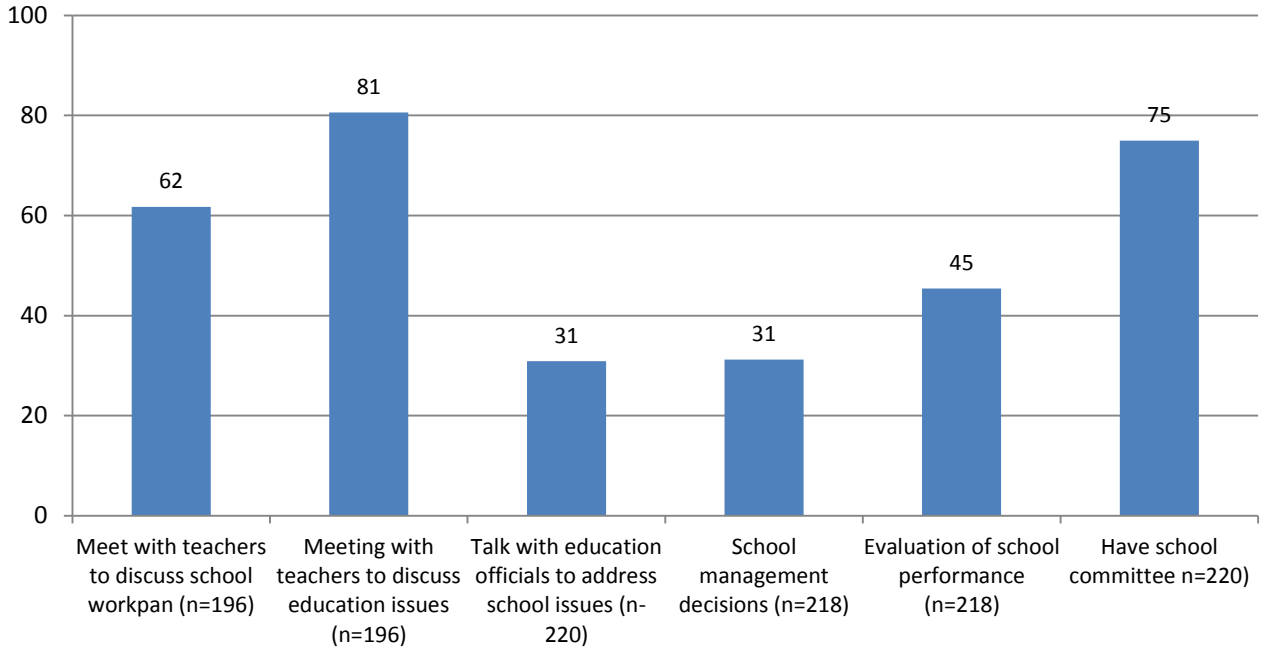
3.3.5 Community monitoring and participation

Community participation in school monitoring is seen as a way to improve school management, encourage accountability and improve teacher attendance (King and Ozler, 2001). The 2004 World Development Report, among others, promotes oversight of teachers by local communities including community participation in the decisions to hire and fire teachers (World Bank, 2004).

This section explores community monitoring and participation in school management and its relationship to teacher absenteeism. Existence of school committees, the frequency of school committee meetings, parent/community involvement in school performance

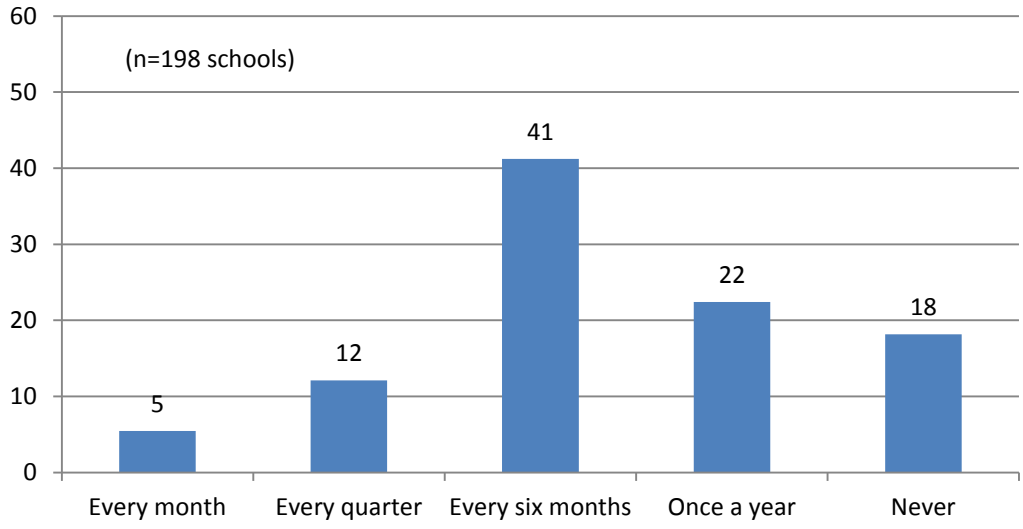
evaluations, and community participation in school planning were variables taken into account.[21]

Figure 40. Community participation in monitoring and school management (%)



Survey results show that three quarters of schools have a school committee (Figure 41). To assess the extent of their activity and support to school management, the survey inquired on the frequency of school committee meetings. Most schools (41%) report that their school committees meet once every six months, 22% meet once a year, 18% never meet and 5% meet every month (Figure 41). Committees that never meet, or meet only once a year were likely established only to fulfill administrative requirements for BOS funding, because having a school committee is a legal requirement to receive these funds.

Figure 41. Frequency of school committee meetings (%)

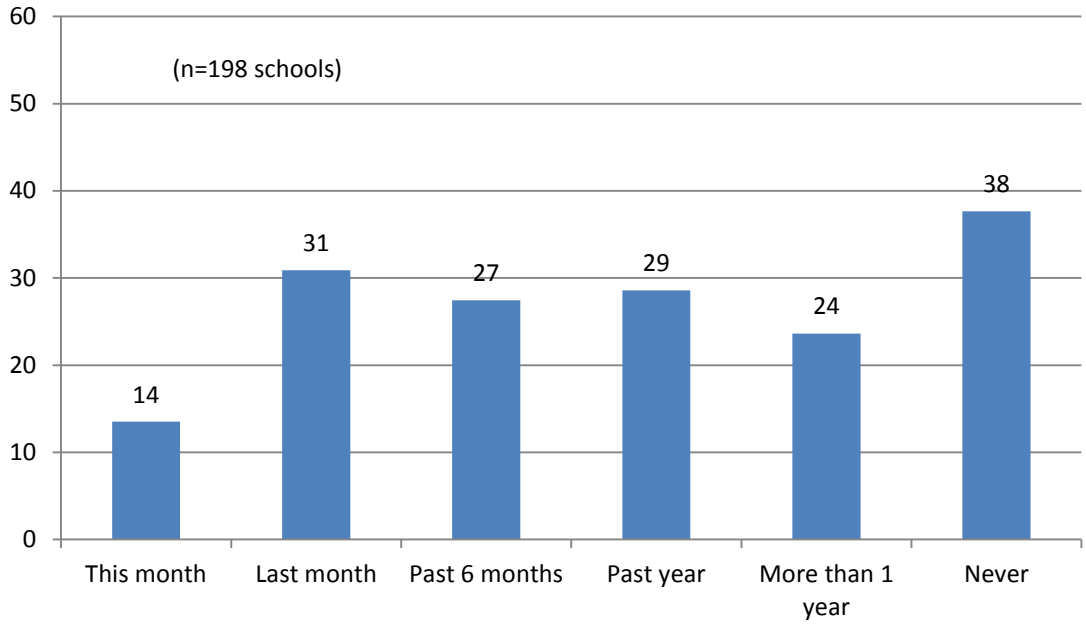


[21] In subsequent sections this report builds on these variables by constructing a School Based Management index to assess to the relationship between School Based Management and teacher absenteeism.

The most common activity conducted by school committees (Figure 40) is meeting with teachers to discuss children's education issues (81%) and meeting with teachers to discuss schoolwork plans (62%). School committee input into management and monitoring by evaluating school performance was reported by 45% of school committees. The level of focus on educational issues and contribution to improved management of schools by the school committees, however, is uncertain. School committees in remote areas are the least involved in school performance evaluation, while those in more accessible areas are most involved (12% in highland districts compared to 60% in easy-to-access districts). The same pattern was observed for school committee participation in management decisions.

Having a school committee appears to have an influence on teacher absenteeism. Overall, the ***teacher absenteeism rate in schools with a committee is 28%, while it is 50% in schools that do not have a school committee*** or report 'other' forms of community participation.

Figure 42. Frequency of committee meetings and absenteeism (%)



There is evidence that active school committees (measured by the frequency of meetings), further contribute to reduction in teacher absenteeism. ***School committees that met in the past month had a teacher absenteeism rate of 14%*** at their school (Figure 42). Conversely, most highland district school committees reported meeting once a year or never, and none met in the past month. These schools also experienced the highest rates of teacher absenteeism compared to all other district categories. A strong correlation between meeting frequency and teacher absenteeism in highland districts is not evident, however because the level of teacher absenteeism is generally high across all meeting interval periods (43%-55%). Similarly in other geographic categories, no clear correlation exists between the frequency of school committee meetings and rates of teacher absenteeism. One noticeable trend is that where school committees are not regularly active (where they do not meet every month), rates of teacher absenteeism are higher. Moreover, schools with committees that never meet experience the highest rates of teacher absenteeism.

Case Study 10. Local Solutions for Reducing Rates of Teacher Absenteeism

The school committee in one privately managed primary school has taken an active role in working with the school principal. Together they agreed that the best strategy for reducing teacher absence was to apply sanctions and reduce teacher pay for teachers who are regularly absent, while at the same time providing a system of rewards to teachers who perform well. Reduction of pay is also applied to teachers who arrive late to school. For each hour of tardiness they receive a pay cut of Rp 7,500. Financial rewards for 'well-performing teachers' are provided from surplus school operational funds. Special incentives are also provided to teachers who act as substitute teachers for those who either arrive late or are absent, helping to ensure that children always have a teacher in the classroom. The school committee and school principal adopted a new school regulation to ratify this system through open and transparent methods.

"The teacher attendance book and detailed financial utilisation report for BOS and BOP I put in a drawer in the school so that all teachers can easily access the information. In fact, I often place the materials on a public notice board. This shows that I am open to all suggestions."

This transparency has also helped to reduce teacher absenteeism. The statement of one teacher was that, "with the leadership of the previous school principal, we often did not enter school if the principal was not there, but nowadays although the school principal might sometimes not be here, we always complete our duties as teachers, because we are satisfied and value the openness and transparency of the new school principal."

Photo: Children in school regularly attended by teachers, West Papua.

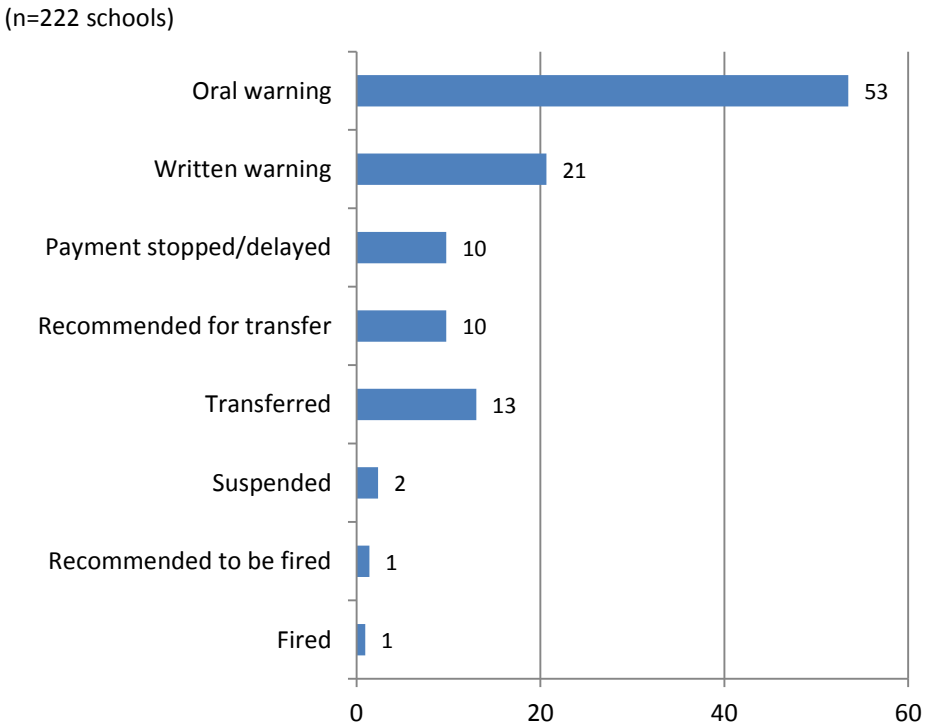
3.3.6 Sanctions

Policy responses to teacher absenteeism in Papua and West Papua have centered on improving teacher welfare and competency. Improvement of welfare is meant to overcome personal and professional hardships associated with working in remote areas such as isolation, limited facilities, access to health care, entertainment and other comforts. Improving competency is based on perceptions that teachers with a professional commitment and strong moral values will attend school regularly. Although required for certain types of behavior, punitive measures are not emphasized policy response instruments to discipline teachers. Local government officials have also expressed 'fear of reprisal' if applying sanctions to teachers, citing examples of violence against officials or destruction of government property in the past.

This section looks at the extent to which sanctions have been applied and reasons for their use. As evident in Figure 43, the most frequent type of sanction applied to teachers was 'oral warning' (53%), followed by 'written warning' (21%), 'transfer' (13%) and 'stopped/delayed payment' (10%). Heavier sanctions such as suspensions or firings were very rare. ***Overall, sanctions are rarely applied and when they are they tend to be very 'soft'.***

Geographically, teachers in easy-to-access districts and in urban areas usually received the lightest sanctions. Only highland district schools reported that a teacher had ever been fired or payment stopped or delayed. Data on absenteeism rates, however, show that the application of these heavier sanctions (albeit rare) has not been effective at reducing teacher absenteeism in highland districts.

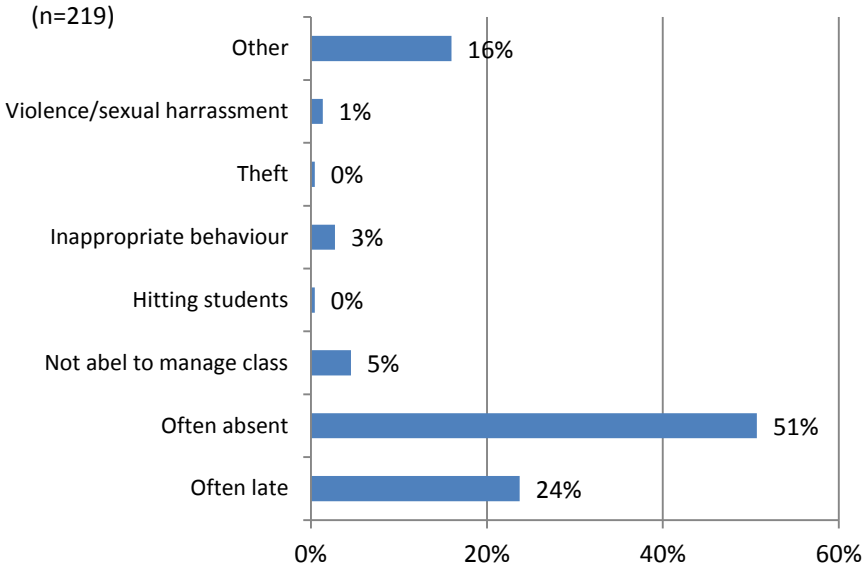
Figure 43. Types of sanctions applied (%)



Reasons for sanctions.

Figure 44 shows the most common reasons for sanctioning teachers was their frequent absence (51%), and frequent tardiness (24%). For these infractions, teachers would typically receive light sanctions, such as oral or written warnings.

Figure 44. Reasons for applying sanctions



Although much less frequent, the results show the existence of some unacceptable and illegal behavior towards children, such as 'hitting students' and 'violence/sexual harassment', for which teachers have received only verbal/written warnings or transfers to another school.

From a community perspective, 48% of respondents believe that recruiting more teachers to their schools would best address the issue of teacher absenteeism. This is most pronounced in rural/isolated sub-districts and highland districts where there is an under-supply of teachers relative to the population distribution, especially in Papua province. Other commonly suggested solutions for addressing teacher absenteeism include increasing government incentives and teacher support for teachers (15%) and increasing sanctions for absent teachers (17%).

3.4 SCHOOL INFRASTRUCTURE AND SCHOOL BASED MANAGEMENT

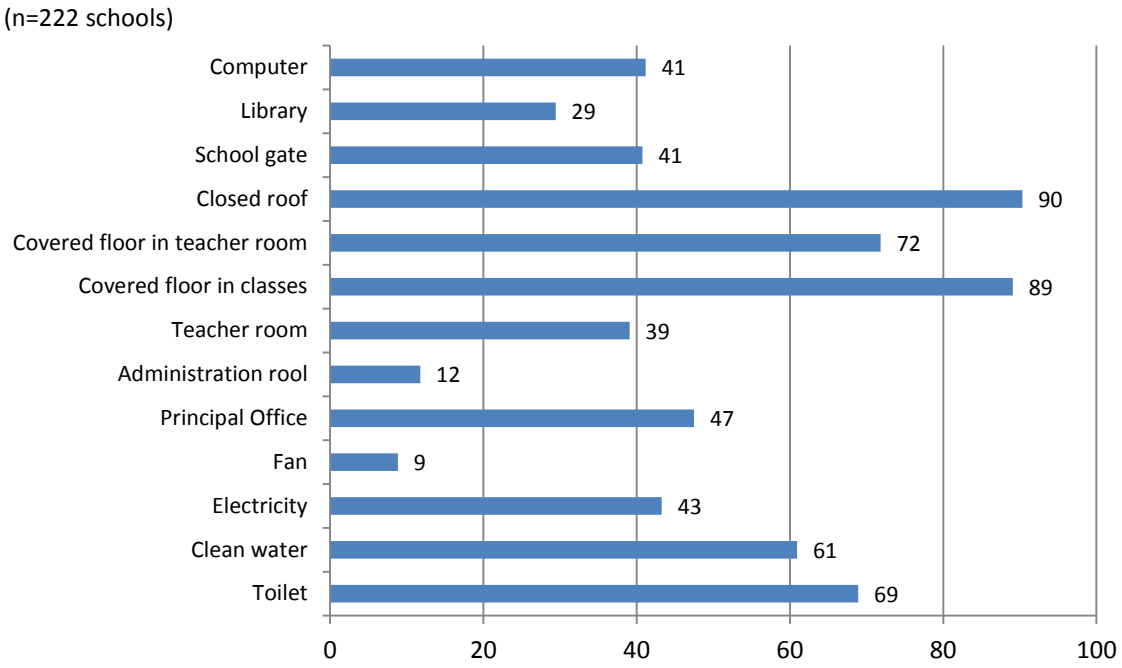
Comparative studies on teacher absenteeism have shown that the working conditions of teachers often act as daily incentives or disincentives for teachers to attend school (Chaudury et al, 2005; Rogers et al, 2005). Other studies have demonstrated that transparency, downward accountability to communities, improved school management, and greater community participation (collectively referred to as School Based Management, or SBM) are also related to teacher absenteeism.

Through the use of composite indices, this section examines the relationship between school infrastructure and teacher absenteeism, and SBM and teacher absenteeism in Papua and West Papua.

3.4.1 School Infrastructure Quality Index

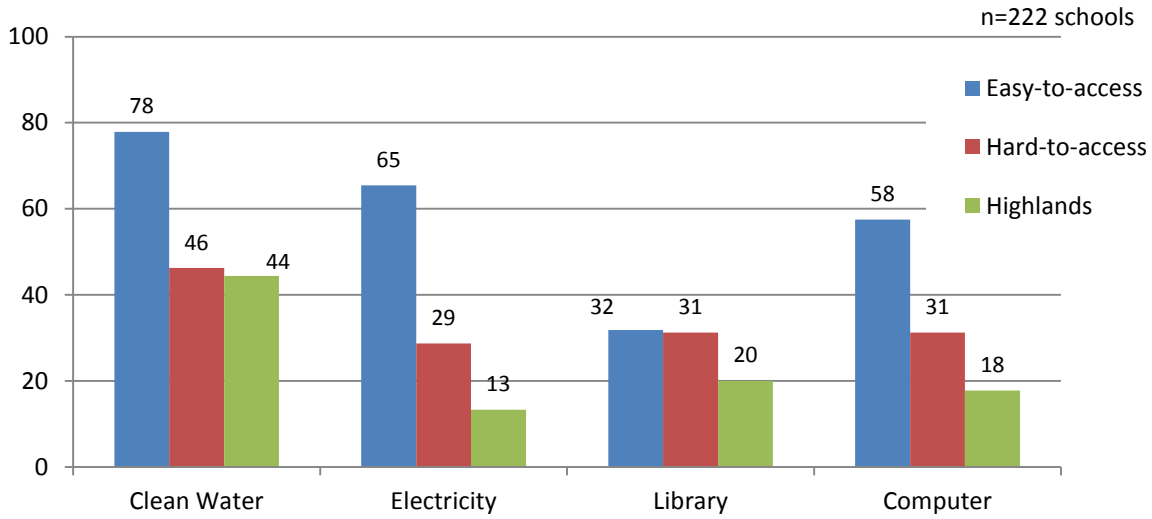
The survey generally found the availability of school infrastructure to be limited and its quality poor. This was especially true in isolated areas. As shown in Figure 45, less than a third of schools have a library for children, less than half have electricity and computers, and around two thirds have access to clean water and toilets. The working environment for teachers and principals is often inadequate with less than half equipped with a teacher's room and principal's office.

Figure 45. Availability of school infrastructure (%)



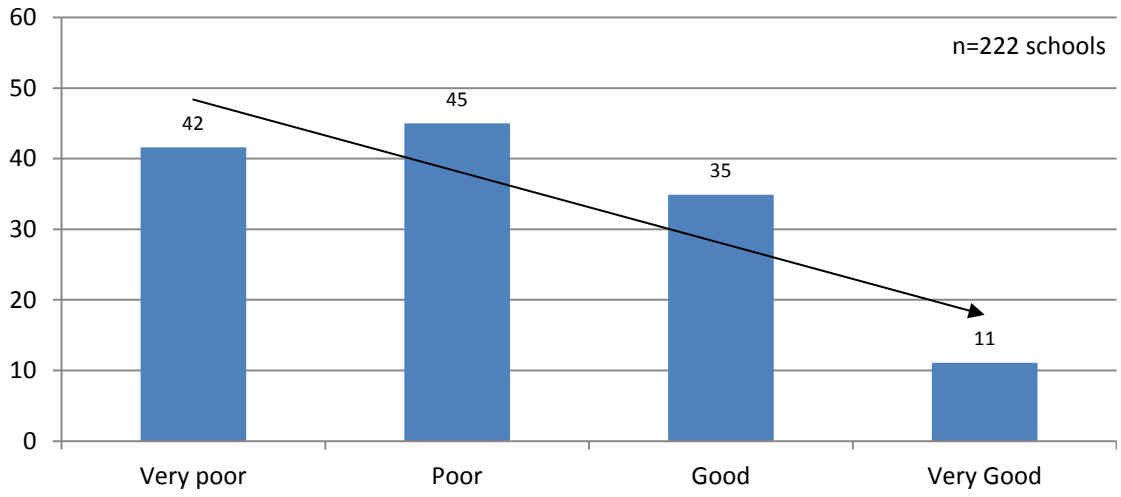
There is, however, significant disparity between urban and other areas, and across different district geographic categories. ***School infrastructure conditions are poorest in rural and remote areas.*** For example, in highland districts 13% of schools had electricity, compared to 65% in easy-to-access districts. In the highlands 20% had a library, compared to 32% in easy-to-access areas, and 18% had computers, compared to 58% in easy-to-access areas (Figure 46). Furthermore, it is mostly schools in urban areas that have higher quality facilities, unlike their counterparts in rural/isolated areas. Similarly, schools in the highlands that do have access to better facilities are usually located to urban areas or district capitals. Those that lack even basic infrastructure such as a closed roof are also located in highland districts. Lowland hard-to-access districts had similar conditions as the highland districts (Figure 46).

Figure 46. Available school infrastructure by geographic categories (%)



To investigate how teacher absenteeism is related to school infrastructure, this study compared a composite index of school infrastructure quality against absenteeism rates. Eleven infrastructure variables were used to construct an index of school infrastructure quality. The variables were scored on a scale 0-100, based on their availability in schools and whether they were in functioning condition. Based on the score, the schools were categorized into four groups: 'very poor', 'poor', 'good', and 'very good'. Teacher absenteeism rates were then identified for each of these categories, overall and based on geographic distribution.

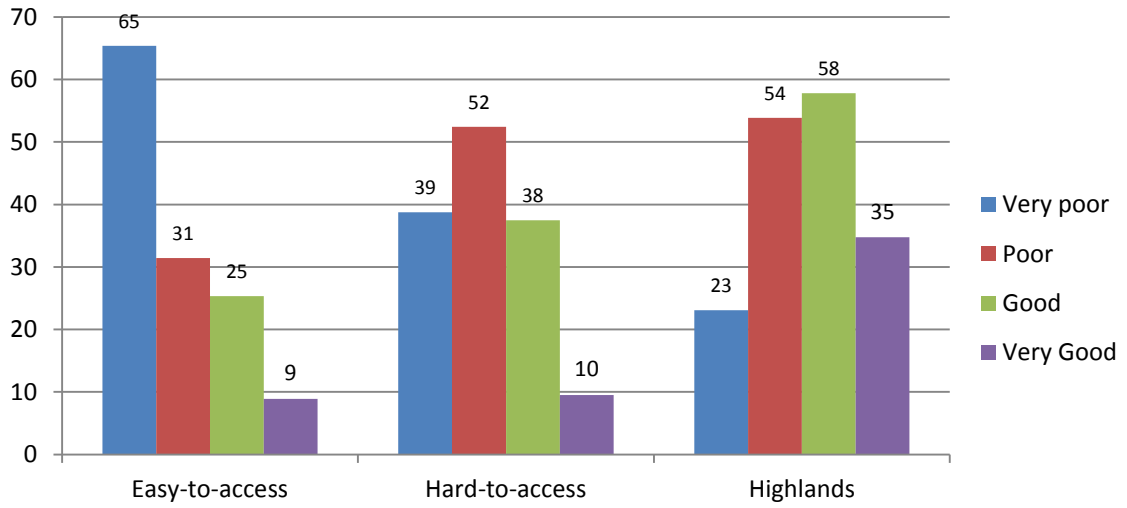
Figure 47. Absenteeism and school infrastructure quality index (%)



Pearson Chi^2 = 92.267, P<.05

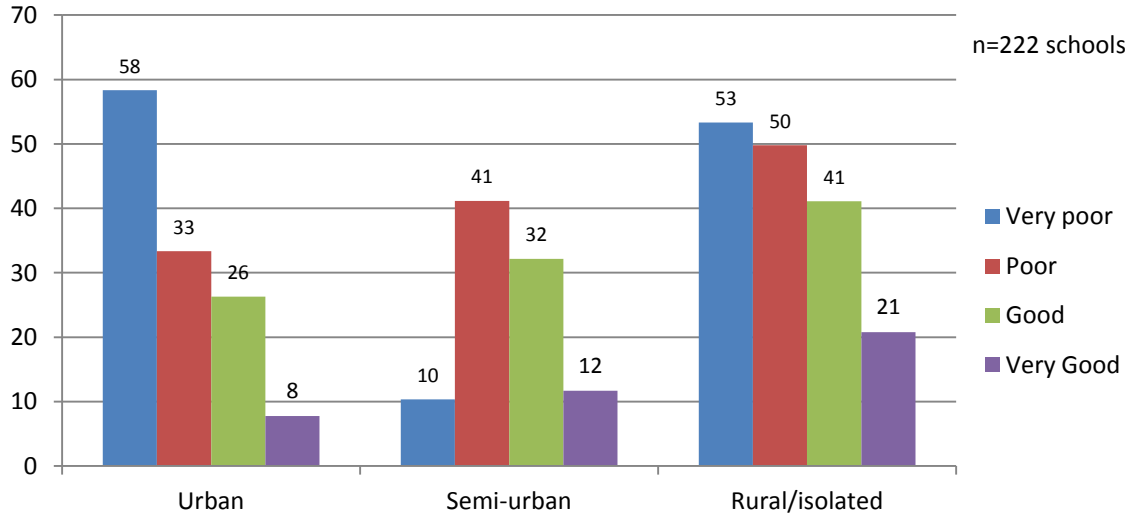
According to the results shown in Figure 48, there appears to be a strong relationship between the quality of school infrastructure and teacher absenteeism. Schools with 'very good' infrastructure had the lowest teacher absenteeism rates (11%), while those with 'poor' and 'very poor' infrastructure had notably higher absenteeism rates (45% and 42% respectively).

Figure 48. School infrastructure quality index and absenteeism by district categories (%)



The correlation between the quality of school infrastructure and teacher absenteeism was consistent with the overall findings only in easy-to-access districts (Figure 49). In these districts, the absenteeism rate was 9% in schools with 'very good' infrastructure, and 65% in schools with 'very poor' infrastructure. In the highlands, however, the lowest rates of absenteeism were recorded in schools with 'very poor' infrastructure, while in hard-to-access areas only schools with 'very good' infrastructure had low absenteeism rates. All other categories had absenteeism rates above 38%. These results suggest that in hard-to-access and highland districts other factors have a stronger influence on absenteeism than infrastructure.

Figure 49. Infrastructure index and absenteeism by sub-district categories (%)



Case Study 11. School Infrastructure Conditions and Teacher Absenteeism

In one school in Jayapura District, school infrastructure was in severe disrepair. All the windows were broken, large sections of the roof damaged, and the walls dirty. Most of the desks and chairs were in poor condition, many unusable. Because only one-third of students attend school, there is still enough to go around, but if all the students were to show up, there would not be enough desks and chairs for everybody.

Because of the very poor physical condition of the school, teaching can only take place in two classrooms in the school, which is not enough space for all the children in the school. To accommodate all students, the classrooms are divided using an improvised partition to divide the two classrooms into four teaching spaces. The school principal and teachers all feel that the poor classroom conditions are one of the main reasons that teachers are regularly absent from school.

On the other hand, some community respondents claimed that the poor physical condition of the school is due to the very poor leadership of the school principal and limited support provided to the school by local government. One community respondent said, “the local government tends to pay attention to schools in the city, and neglect schools in other areas”.

Photo: Multi-grade teaching due to limited facilities and teachers in schools.

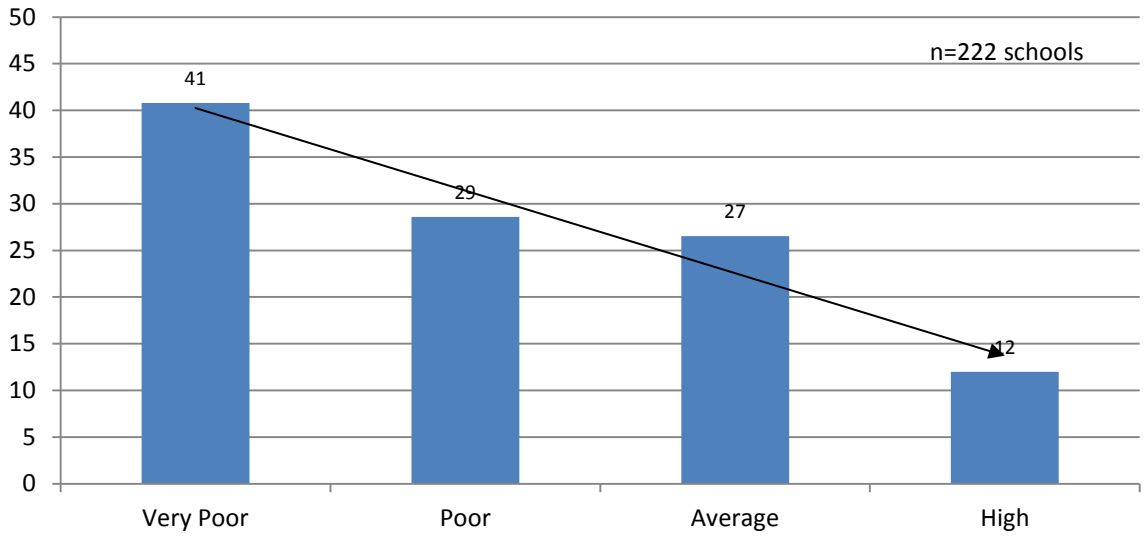
Differentiation by sub-district categories again reveals strong correlation between the quality of school infrastructure and teacher absenteeism (Figure 49). The increase of absenteeism with the decrease in infrastructure quality is especially pronounced in urban area schools. The only anomalous exception was schools in semi-urban areas where teacher absenteeism was lowest in schools with ‘very poor’ infrastructure.

Although some notable exceptions exist, both aggregate and geographically differentiated results show that quality of school infrastructure does have an effect on school absenteeism. Degree of its influence varies across geographic categories and is even reverse in highland districts, but appears to be strong enough overall to be factored into teacher absenteeism mitigation plans.

3.4.2 School Based Management (SBM) Quality Index

To see how teacher absenteeism is related to SBM, this study compared a composite SBM index against absenteeism rates. The index covers two out of the three pillars of school based management as defined in Indonesian Government regulations – management of schools and community participation in school management and governance processes. These two pillars include issues of transparency, school accountability toward communities, community monitoring of schools, and community participation in school decision-making processes. The index is comprised of 20 variables that were included in the survey instruments so as to be easily and quickly observed[22]. This was done to ensure that the variables could be easily and consistently measured by enumerators, avoid subjective assessments (a problem rife in Indonesia in attempts to assess the quality of SBM), and thus allow for valid comparisons across schools and geographic regions. The index was based on a five rank scale: schools with SBM that is 'very poor', 'poor', 'average', 'high' and 'very high'. Teacher absenteeism rates were then identified for each of these categories, overall and based on geographic distribution.

Figure 50. Teacher absenteeism rates (%) and SBM index



Pearson Chi^2 = 28.239, P<.05

Upon classification based on the SBM quality index, none of the schools scored 'very high', 3% of schools scored 'high', while most schools fell into 'average' and poorer categories (combined 51%). This would suggest that much effort is still required in Tanah Papua if SBM is to be implemented effectively (and perhaps across most of Indonesia).

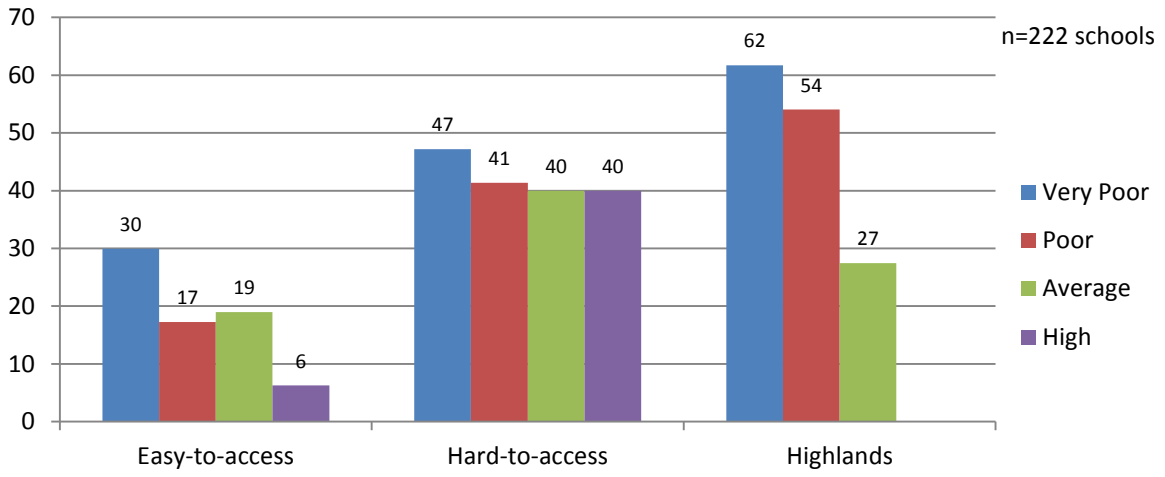
Although classification of schools by the SBM index revealed there is ample room for improvement in this area, comparison against absenteeism rates showed a strong relationship between SBM and teacher attendance. Figure 51 shows how teacher

[22] The variables were included in the survey instrument to enable unbiased, quantitative measurement. For example, whether or not school budgets are publicly displayed, rather than the quality of school budgeting processes; whether school committees were involved in management decisions of the school, rather than the quality of community inputs; how frequently school committees met, rather than the quality of meetings, etc.

absenteeism rate decreases with stronger SBM. ***Schools that ranked 'high' on the SBM scale had a 12% teacher absenteeism rate, while those ranked 'very poor' had a 47% absenteeism rate.***

Analysis of district geographic categories confirms the overall trend, especially in the highlands and easy-to-access areas (Figure 51). Absenteeism rates in the highlands drop from 62% at schools with 'very poor' SBM to 27% at schools with 'average' SBM; in easy-to-access areas they drop from 30% at schools with 'very poor' SBM to 6% at schools with 'high' SBM. Results from hard-to-access sub-districts are more ambiguous; with nearly equal absenteeism rates across all SBM index ranks (40%-47%). Sub-district categories further follow the trend, where SBM decreases with the increasing distance from urban areas, and rates of teacher absenteeism drop with the rise in SBM quality.

Figure 51. % Absenteeism by SBM Index and district category



Overall, both the quality of school infrastructure and the quality of SBM appear to have significant influence on the rates of teacher absenteeism. Few schools however score highly on either the infrastructure quality or SBM index. Results reveal a trend in which teacher absenteeism decreases with the improving rank in both indices. ***The relationship between teacher absenteeism and SBM is arguably stronger than with school infrastructure because it is consistent across all categories.***

Both factors, therefore, warrant attention by government and donors, but prioritising improvements in SBM may also translate into a more enduring investment policy-wise, as infrastructure alone is not sufficient to improve the quality of children's education.

Case Study 12. School Committee and School Management

One privately managed primary school in Merauke District was selected because of the positive model it provides for promoting effective community participation in school management and thus accountability to the community and students. The school has active participation of its school committee in many aspects of school management. The school committee is entirely comprised of the parents of students in the school.

The school principal noted, "all the school committee members are parents of students whose children are still in the school. This encourages them to be very active in supporting, helping and monitoring teaching and learning processes in the school. The school committee has also been able to promote a good relationship with the school principal. This is very different from many other schools where committee members are not parents of students which results in low level of interest for school progress".

Support from the school committee is received in the form of paying the full salaries of honorarium teachers in the school and improving the school infrastructure. Parents of students help with preparation of meals for children in the school, painting the school, and supplying transportation for extra-curricular school activities. The school committee also monitors the attendance of teachers through reports from their children, and each semester the school committee conducts an evaluation of the school's performance together with the school principal and the teachers. The school committee is also actively involved in school management by establishing appropriate teaching hours of the school (flexible learning schedules for children), strengthening local curriculum materials, and improving teacher behavior toward students (e.g., not to be aggressive or abusive toward children, and encouraging children to freely express their opinions).

The working relationship between the principal and the committee is constructive and has led to a amicable relationship between the school and the local community. Respondents attributed this in part to the disciplined leadership of the school principal, his openness toward the views and wishes of the school committee, and his high level of transparency in financial management.

"Now my children never report that teachers are absent from their classes. Since the leadership of this school principal began, there is never any conflict between teachers themselves or between teachers and parents and the school principal as happened in the past with the previous principal."

School Committee member

As a result, the level of teacher absenteeism is much lower in this school compared to other schools, a very harmonious relationship exists between teachers and students, and there is an effective partnership between the school principal and community members. This was made clear by the fact that all teachers were present at this school when visited by the research team.

Photo: Children hanging out in school.

3.5 TEACHER WELFARE, PARTICIPATION IN SOCIAL ACTIVITIES, TRAINING AND SALARY

Given the geographic isolation of many parts of Papua and West Papua, policy-makers and government officials often note that teacher welfare is a major factor in teacher attendance. Teacher welfare refers to housing, health, family circumstances (living with family members or away, visiting family members), and cost of travel, recreation opportunities, and access to services. Teacher income is commonly regarded as insufficient to cover living costs and to provide for the family, often pressuring teachers to seek additional work or incur loans, which ultimately negatively impacts school attendance.

This study has found that teachers continue to experience a range of problems related to housing conditions, access to public services, access to basic supplies and training opportunities. This section elaborates on the issues of teacher welfare and participation in professional development activities based on the survey.

3.5.1 Housing

Survey data in Figure 52 shows that 25% of teachers currently reside in government housing. Most of them live in privately owned houses (56%), 9% live in their family home (home of their parents or other family members), and the remainder live in rented houses or boarding rooms, houses of local community members, or government houses for their spouse who is a civil servant. Of the teachers for whom the government provided housing, 83% actually lived in those houses while 17% chose alternative accommodation (Figure 53).

From the perspective of district geography, the distribution of types of teacher's residence was similar to the overall distribution. In easy-to-access districts 50% of teachers lived in private homes, while in the other district categories it ranged between 33% and 38%. The highest percentage of teachers living in government housing was in highland districts (25%), while the lowest was in easy-to-access districts.

Figure 52. Teacher accommodation by type of residence

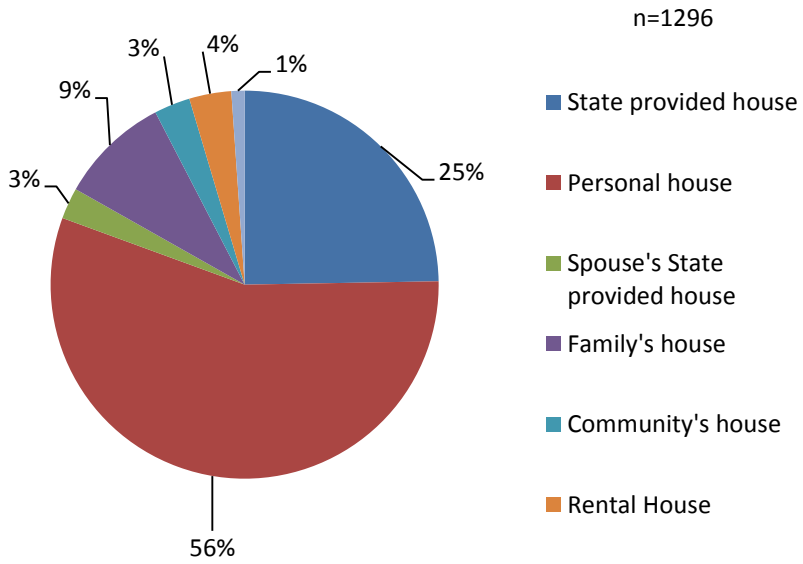
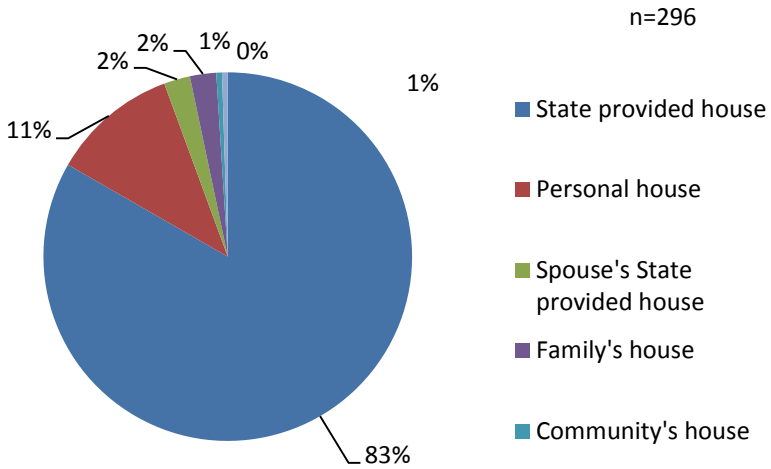


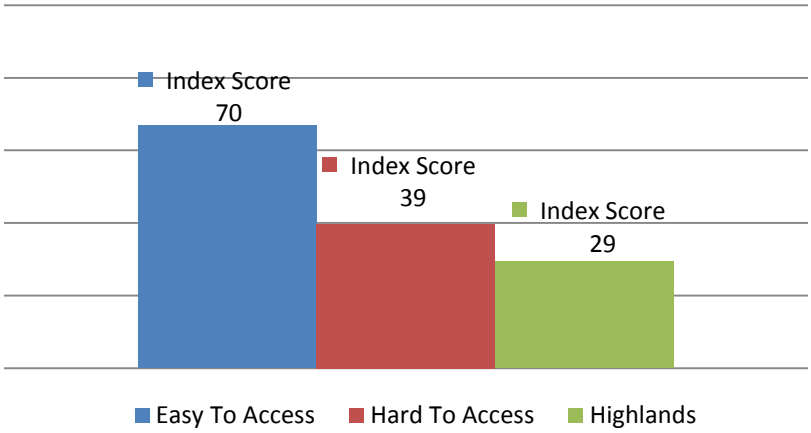
Figure 53. Location residing if receiving housing incentive



Quality of housing. To measure the overall housing conditions and quality of teacher housing, the study constructed a 'housing quality index' using a range of variables associated with the quality of home infrastructure[23], which were scored on a scale 0-100.

Housing quality index scores revealed sharp differences in housing quality across the different geographic categories of Papua and West Papua. The quality of teacher houses was low in both the highland districts and hard-to-access lowland districts (index score of 29 and 39 respectively), and significantly higher in easy-to-access districts with a score of 70 (Figure 54).

Figure 54. Housing Quality Index by district geographic categories (n=1296)

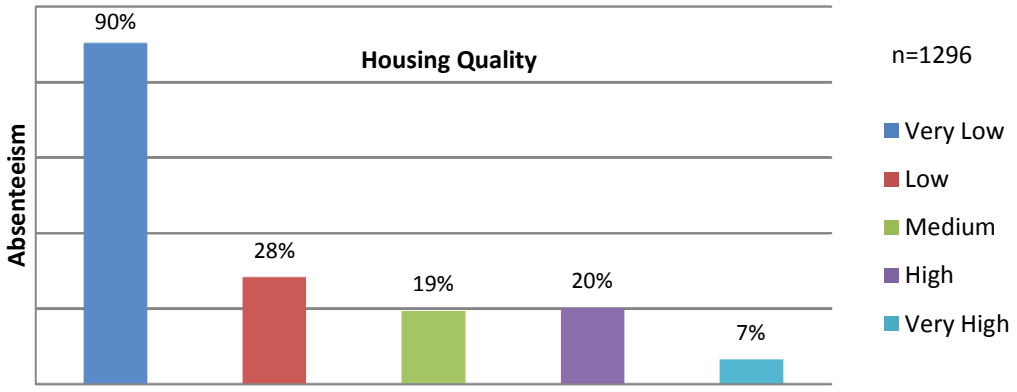


The housing quality index scores were then categorized into 'very low, 'low', 'medium', 'high', and 'very high' to allow comparison with teacher absenteeism rates. Index categories were cross-referenced with absenteeism rates to determine a potential relationship between these variables.

[23] Variables included doors, floors, windows, access to water, electricity, etc.

Results in Figure 55 show an apparently strong relationship between the quality of housing and rates of teacher absenteeism. ***The rate of teacher absenteeism was very high for those teachers whose housing quality was 'very low' (90%), and significantly lower for those with better quality houses, especially with houses in the 'very high' category (7%).*** Almost all the government-supplied teacher houses of 'very high' quality were located in easy-to-access lowland districts, likely due to easier access to building materials and utilities such as water and electricity.

Figure 55. Absenteeism by housing quality

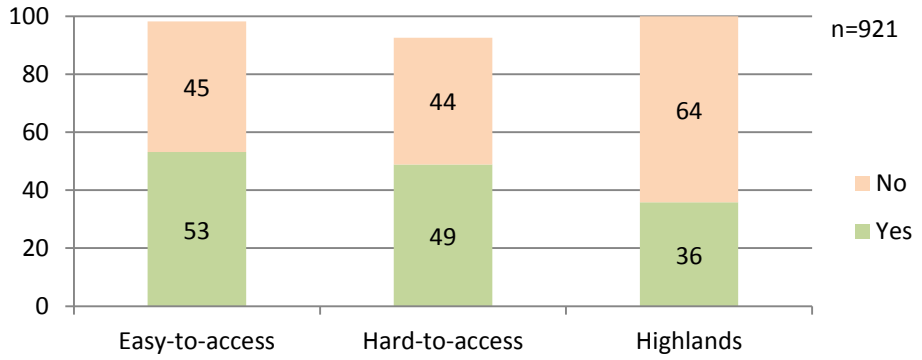


Pearson Chi^2 (4) =597.724, P<.05

3.5.2 Teacher Debt

Almost half of all the teachers reported having some form of credit. Figure 56 indicates most teachers with credit (53%) were located in easy-to-access lowland districts, and fewest were in highland districts (36%). There may be several reasons this is the case, namely better access to banks and full range of their services, availability of collateral, higher consumer needs, and preferential credit risk rating by the banks.

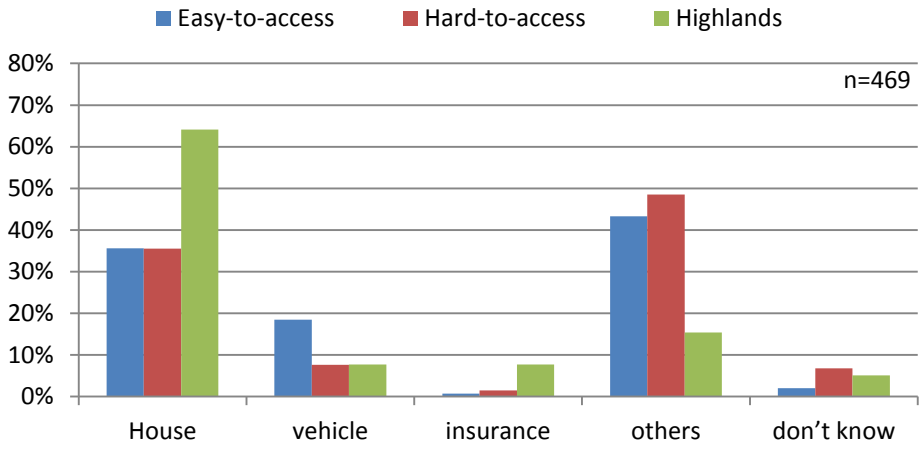
Figure 56. Proportion of teachers with credit



Sources of debt. More than half of all the teachers carry debt for housing. Geographic distribution of teacher debt (Figure 57) shows that 63% of teachers in the highlands have taken out loans for housing, compared to 38% in easy-to-access and hard-to-access lowland areas. This suggests that the housing incentives for teachers in remote areas, particularly in highland districts, have not been effectively targeted or that the quality of housing is below acceptable standards for teachers. Loans for vehicle purchases were most prominent with

teachers in easy-to-access districts, likely because of better road infrastructure and potentially easier access to credit facilitaties.

Figure 57. Sources of teacher debt (%)



3.5.3 Teacher health

Access to health services in Tanah Papua is limited, especially in isolated areas where residents face serious health risks related to malaria, respiratory illness, HIV AIDS and others. Although health issues can significantly impact teacher attendance at school, there is little accurate information on health of teachers and their families in Papua and West Papua.

Rates of illness and types of illness. To attain a better understanding of health conditions of teachers and their families the survey asked a series of questions related to health[24]. Thirty-seven percent of 942 teachers reported being sick in the one-month prior to the survey. Most illnesses reported (63%) were some form of fever, often associated with malaria. A range of 'other' illnesses included high blood pressure, flu, cancer, kidney disease, cough, asthma, diabetes, 'sore bones', skin disease, 'respiratory disease' and diarrhea. Various types of respiratory disease are often reported, likely because of common indoor use of firewood for cooking, and diarrhea because of unsanitary washing facilities or poor water quality.

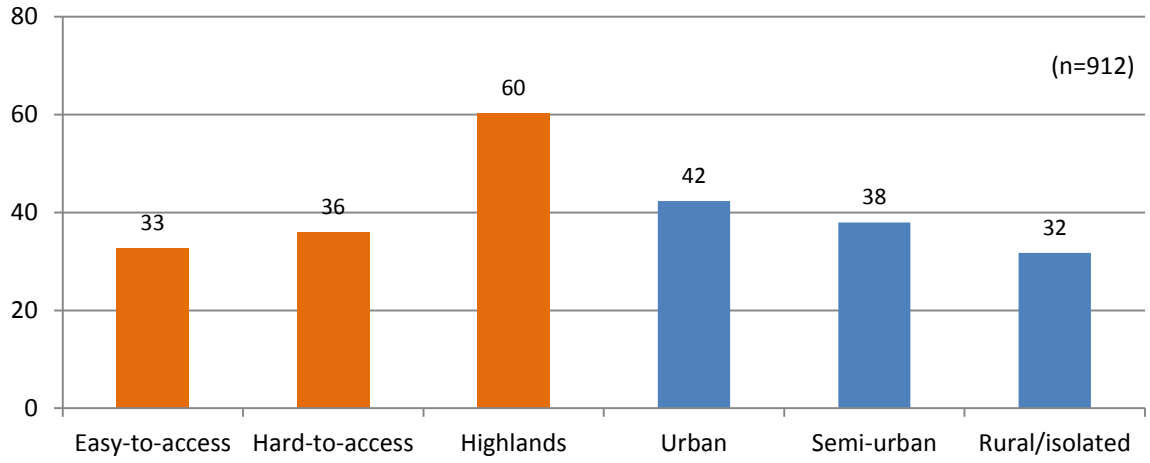
As seen in Figure 58, highland districts had the highest proportion of teachers who were sick in the past month (60%), with 80% of illnesses manifested as some type of fever. The rate of teacher illness in the past month was below 40% in lowland, with most of illnesses manifested as fever or malaria–like symptoms.[25]

Diarrhea and respiratory illnesses were almost twice as common in semi-urban and rural areas among teachers who were sick, while 'skin disease' was reported uniformly across all geographic categories.

[24]Data on health conditions could only be gathered for teachers who were present during the survey. While this makes it difficult to correlate health conditions to observed rates of absenteeism, the sample of teachers present at school is sufficiently large to provide an accurate picture of the types of illnesses most common across different areas of Papua and West Papua.

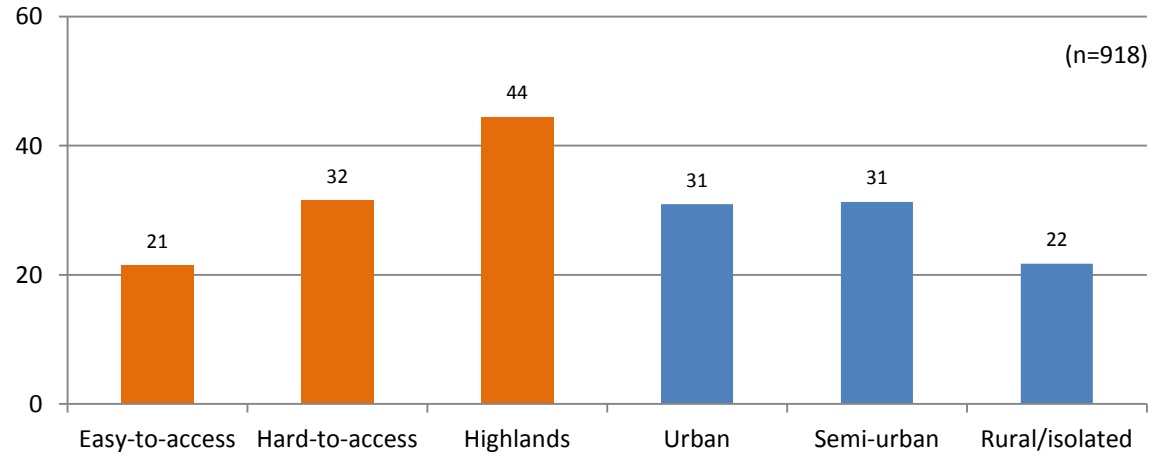
[25] Survey respondents frequently reported having 'malaria'. It is a common self-diagnosis to report all fever-like symptoms as 'malaria', reported with no clinical tests done. Its use in the report is only indicative.

Figure 58. Teacher ill last month by geographic categories (%)



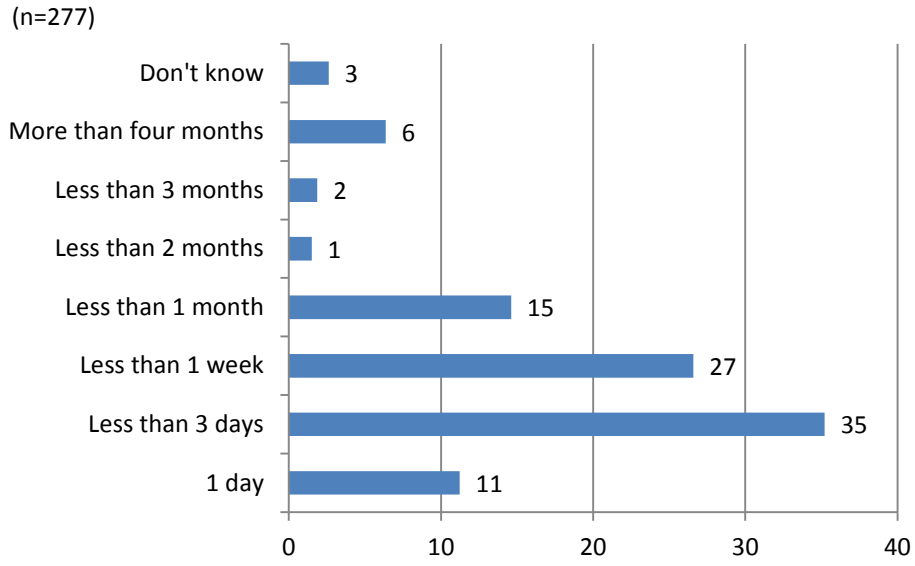
Family member illness. Twenty seven percent of teachers with immediate family living with them reported that a family member had been sick in the past month. Results in Figure 59 show the lowest frequency of family member illness was in easy-to-access districts (21%) while the highest was in highland districts (44%). In terms of sub-district geography, family members of teachers in rural/isolated areas were least frequently ill (21%).

Figure 59. Family member illness by geographic categories (%)



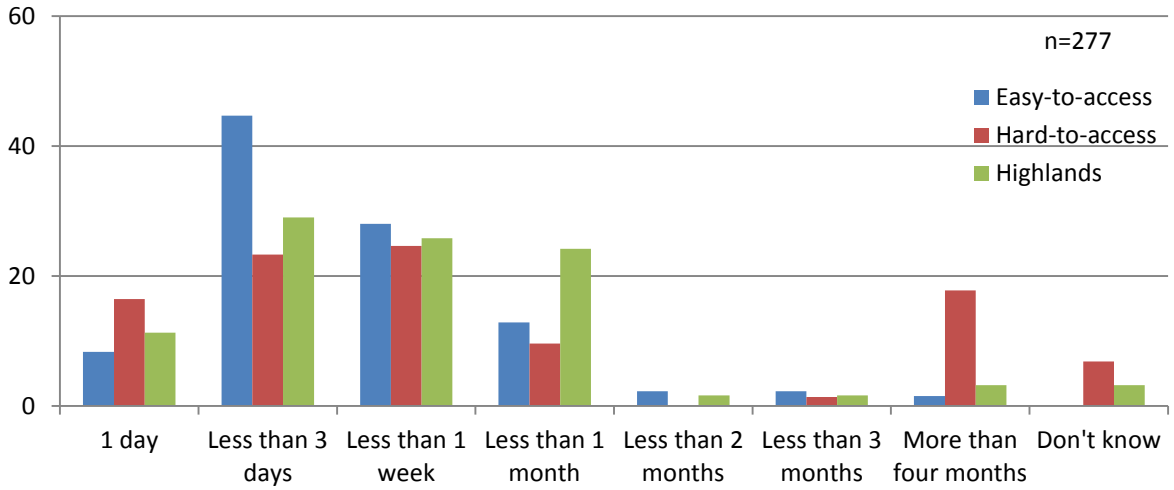
Access to medical treatment. Teachers were asked how quickly they are able to access medical treatment in case of illness. Only 11% of teachers reported they could access medical treatment within one day. The majority of teachers reported they can access treatment in less than three days (37%), and 27% said in less than one week. Fifteen percent of teachers reported needing less than one month to get treatment and 7% more than one month (Figure 60).

Figure 60. Time it takes to receive medical treatment (%)



Those with the quickest access to medical treatment are teachers from lowland easy-to-access districts and urban sub-districts, while those with the slowest access to medical treatment are teachers from highland districts and rural/isolated sub-districts. Geographic isolation, however, does not always determine the speed of access to medical treatment as shown in Figure 61. Teachers in easy-to-access districts and urban sub-districts may require lengthy periods of time to access medical treatment. Conversely, some teachers in highland districts are able to access medical services fairly quickly.

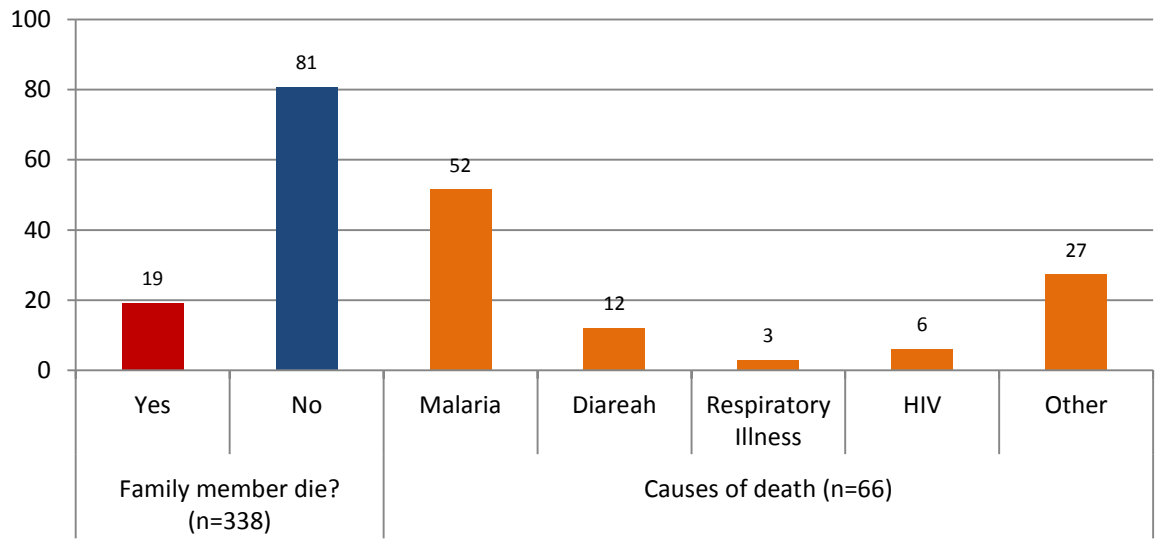
Figure 61. Time required to access medical services (%)



Family death due to illness. Survey results in Figure 62 show that 19% of teachers suffered a death of a family member living with them in the past year. While the survey did not conduct clinical tests to confirm causes of death, respondents reported that more than half of deaths were caused by some type of fever (usually reported by respondents as 'malaria-related'). Diarrhea was reported as a cause of death in 12% of the cases, HIV AIDS in 6% and respiratory illness in 3% of the cases. Other reasons reported include child birth, kidney

disease, lung disease, high blood pressure, tuberculosis, tumors, tetanus, and 'non-medical' disease.

Figure 62. Deaths of family members due to illness during the past year (%)



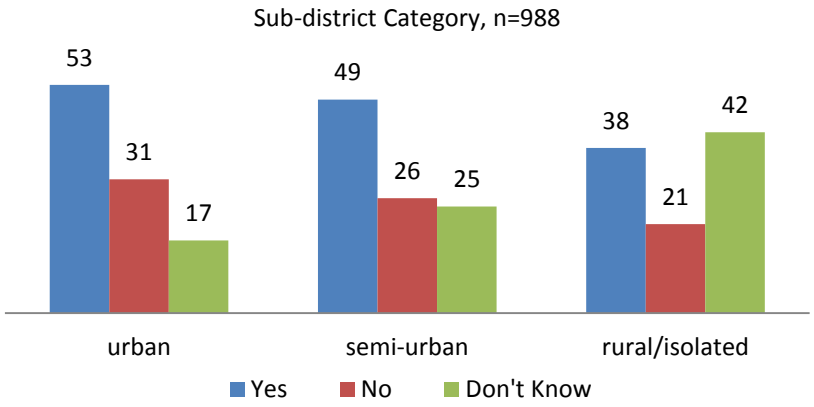
3.5.4 Participation in Political, Social and Professional Organisations

In Indonesia, teachers play multiple roles in society as professionals, mentors, and society role models. They generally have a high social status because of their role in 'educating the nation'. The role of teachers in society can be seen from their involvement in various organisations, mostly in social and professional ones and to lesser degree political ones.

Teacher participation in political organizations. Survey results show that less than 2% of teachers are involved in political organizations. The actual percentage of politically active teachers may be higher, considering data was incomplete for absent teachers and the reluctance of some teachers to share this type of information. For those actively involved in political parties, most report being rank-and-file supporters or event organizers at local level. Findings also indicate that teachers in remote areas are less politically active. Given the low percentage of their participation in politics, it is unlikely to play a significant role in teacher absenteeism.

Teacher participation in social organizations. About one half of teachers surveyed reported being a member of a social organization. The most common type of social organizations teachers enlisted in were religious organizations, from 70% to 80% across all geographic categories. While a higher proportion of teachers in urban and semi-urban areas participated n social organisations than in rural/remote areas (53% and 49% compared to 38%), teachers in rural/remote areas participated in them more frequently (Figure 63). Across district geographies, teachers in easy-to-access and hard-to-access lowland districts participated in social events more frequently (four times per month) compared to those in highland districts (once per month).

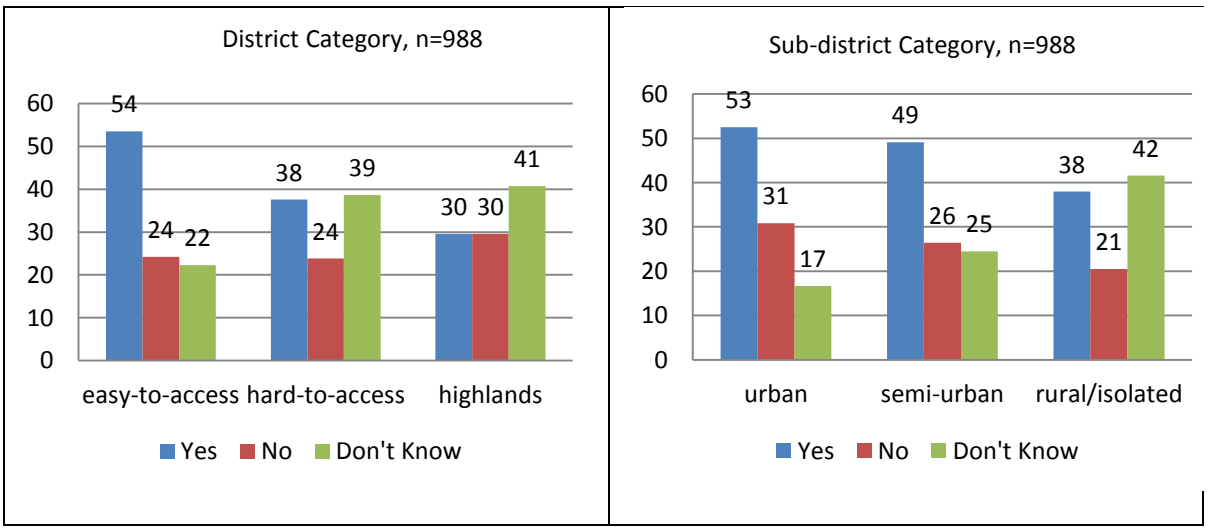
Figure 63. Participation in social organizations (%)



Teacher participation in professional organizations. The overall teacher participation in professional organizations was 40%. It was highest for teachers in easy-to-access districts at 54%, and lowest for teachers in hard-to-access and highland districts at 30% (Figure 64). Across sub-district categories, teachers in urban sub-districts had the highest level of participation in professional organizations (53%), compared to 43% in semi-urban and 38% in remote/isolated sub-districts (Figure 64).

Teachers reported involvement in a range of organizations such as teacher working groups (KKG), principal working groups (KKKS), teacher's association of Indonesia (PGRI), teachers clubs (*Klub Guru*) and 'other' organizations (see Annex A). The most commonly cited organization was KKG, a professional development support mechanism for teachers below sub-district level, designed to support 'clusters of schools'. ***Between 68% and 80% of teachers across all geographic categories participated in the KKG mechanism, with the highest rates of participation in hard-to-access and highland districts and rural and remote sub-districts***.

Figure 64. Participation in professional organizations (%)



The frequency of participation in professional organizations varies considerably across geographic categories. In easy-to-access districts most teachers reported being active once

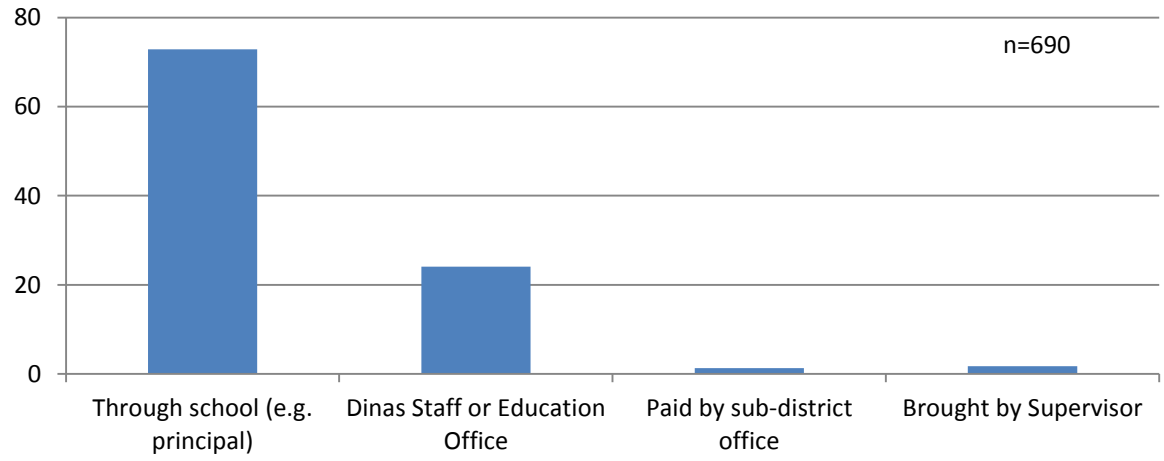
a month, while in hard-to-access districts most teachers said they were 'rarely' active. In highland districts the most common frequency was twice a month, with some teachers attending professional development organization events up to five times a month. Across sub-district categories, the most common frequency of participation one to two times a month.

3.5.5 Payment of salary and secondary work

Most teachers reported receiving salary payments in cash (73%), while the rest were receiving it through bank transfers. Almost all teachers in highland districts and a high proportion in hard-to-access districts received their payments in cash. Likewise, most teachers in semi-urban and rural/isolated sub-districts received their payment in cash. This is likely due to a lack of widespread banking facilities in those areas. Figure 65 shows that in most cases (72%) the school principal would collect teacher salaries from the district education office and distribute them in school. Less frequently district education officials would deliver the salaries to school and on rare occasions the district school supervisor.

Secondary work. Of the teachers surveyed, 23% report having a second job. Most of them work as farmers (including fishing) on a part-time basis, a smaller proportion as 'petty traders' (running a warung or kiosk) or a range of small-scale activities. Teachers tend to be occupied seasonally in farming, usually during harvesting, while fishing is done more continually throughout the year but usually on days off school.

Figure 65. Method of receiving cash salary payments (%)



3.5.6 Family and travel

Given the remoteness of much of Papua and West Papua, teachers often need to travel long distances to visit family or purchase supplies for recreation and other activities. Travel is often noted as a major factor that affects both the welfare and school attendance of teachers.

As indicated in Figure 66, the majority of teachers surveyed are married and have children (over 88%), and 25% of them live apart from their immediate families. Of the teachers living apart from their families, 69% reported traveling away from their school for family purposes.

Figure 66. Family and travel (%)

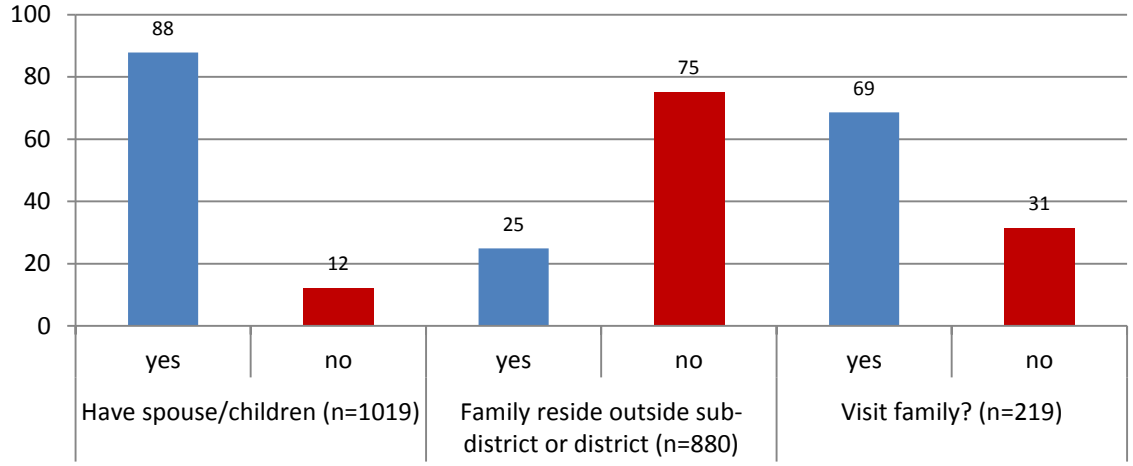
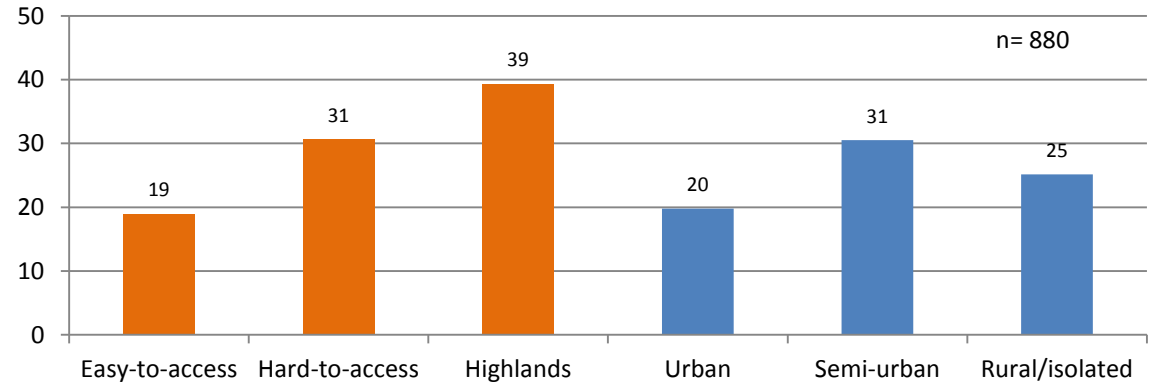


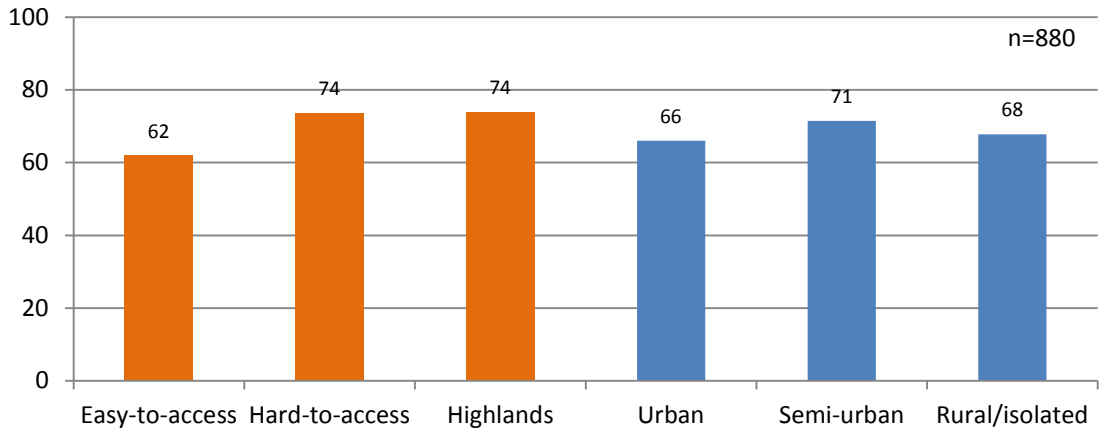
Figure 67 shows that the highest proportion of teachers whose immediate family reside outside of the sub-districts or districts in which they work are found in highland districts (39%). This number decreases as districts become easier to access (hard-to-access districts 31% and easy-to-access districts 19%). Also, teachers in urban areas have the fewest cases of immediate family living apart from them. The majority of teachers living apart from their family are indigenous Papuans from other parts of Tanah Papua, rather than locals from the school area or teachers from other parts of Indonesia. Results also indicate that the majority of teachers who do not visit their family are non-native Papuans from other parts of Indonesia. This is likely due to prohibitive costs of travel.

Figure 67. Family living elsewhere by geographic category (%)



Across all district and sub-district geographic categories, the proportion of teachers who visit immediate family living elsewhere ranges from 62% to 74% (Figure 68). Travel, therefore, may affect teacher absenteeism especially in areas where a large proportion of teachers live apart from their immediate family, such as highland districts.

Figure 68. Visiting immediate family members living in other locations (%)

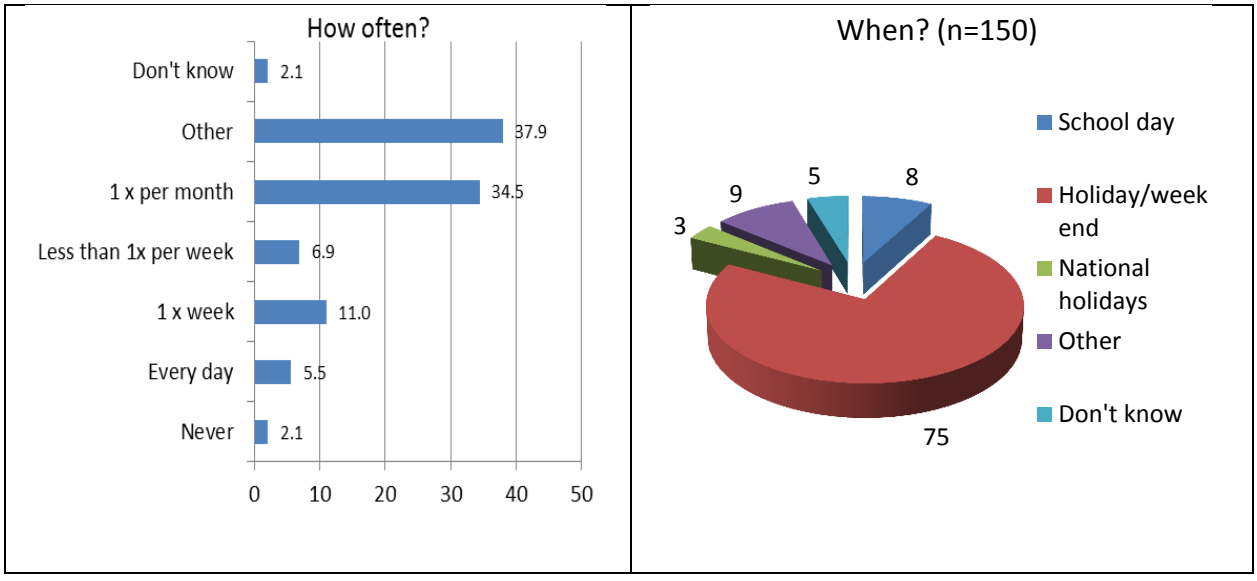


Frequency and length of family visits. Whether visitation travel affects teacher absenteeism is likely dependent on the frequency and timing of those visits.

Results in Figure 69 show that 6% of teachers visited family members 'every day', 11% 'once a week', 7% 'less than once a week', 34% 'once a month' and 37% reported 'other', implying less frequent visits. Teachers who made more frequent visits (every day or weekly) tended to have family members living in neighboring sub-districts or districts. Those who made less frequent visits had families living in other districts or provinces.

Eight percent of teachers who visit family members do so during school days. These tend to be shorter in duration and are usually made to neighboring sub-districts or districts. Three quarters of teachers reported making visits to family during holidays or weekends (Figure 69), allowing for longer visits. A small proportion of teachers (3%) said they only make visits during national holidays, while 9% reported visiting during 'other' periods, 'when time is available'. This was usually the case with teachers whose family members live much further away from their schools.

Figure 69. How often and when visiting family (%)

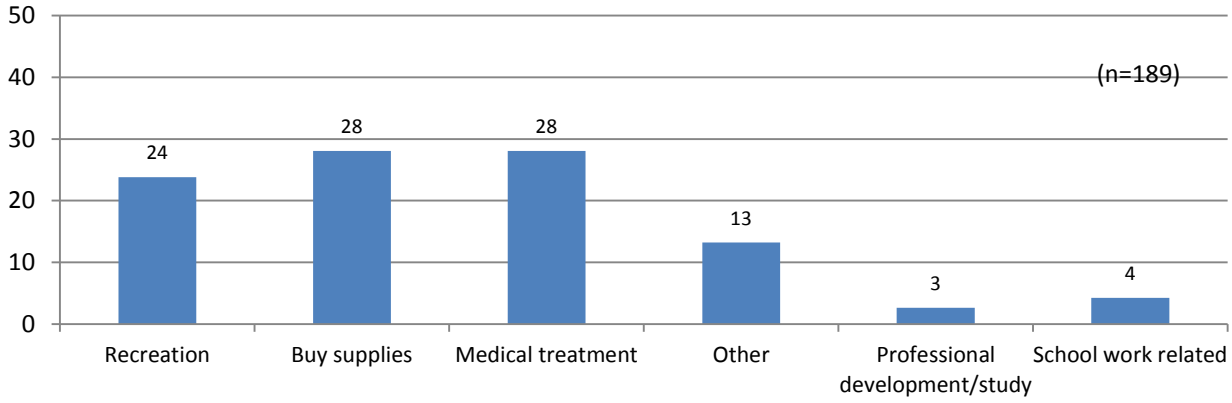


The frequency and timing of visits suggests that most teachers schedule family visits around their school duties. While there may be cases when teachers are late in returning to their schools, visiting family members does not seem to significantly impact teacher absenteeism. The only exception is in highland districts with poor infrastructure, poor public transportation, remoteness and rugged terrain, which increase the length of visits to family. Since highland districts have a higher proportion of teachers who live apart from their family and the highest percentage of teachers traveling to visit family, they are most vulnerable to teacher absenteeism induced by family visitations.

Cost of visiting family members. While visiting family members may not be strongly related to teacher absenteeism, teachers in relation to their welfare often raise the cost of visiting family as a concern. Travel cost can be a heavy burden on teacher income, often prohibitive and can have an unwanted result of reducing contact with family members. For the indigenous Papuans with family members living in other sub-districts or districts, the cost of a single trip may range from Rp. 25,000 to Rp. 100,000.[26] Since the trips are made to neighboring sub-districts, they are done more frequently and can add up to Rp. 2 million per month. More expensive travel is conducted less frequently by fewer teachers where the costs can range from Rp. 100,000–Rp. 500,000 to over Rp. 5 million. More expensive travel is usually conducted by teachers in more isolated areas and during longer holiday periods or school breaks.

Other reasons for travel and teacher welfare. Out of 189 teachers surveyed, 24% travel for 'recreation', 28% to buy 'supplies' such as food, household items and other items, 28% to receive medical treatment, 3% to attend professional development activities, 4% to participate in work related activities, and the remaining for 'other' reasons (Figure 70). Traveling for 'recreation' and 'buying supplies' is highest among teachers in highland districts. This reflects the commonly acknowledged realities in Tanah Papua regarding the lack of facilities and supplies in remote areas and the difficult living conditions often experienced by teachers.

Figure 70. Other reasons for travel (%)



While a large proportion of teachers in highland and hard-to-access lowland districts travel to access medical services, the highest proportion of teachers who travel for medical

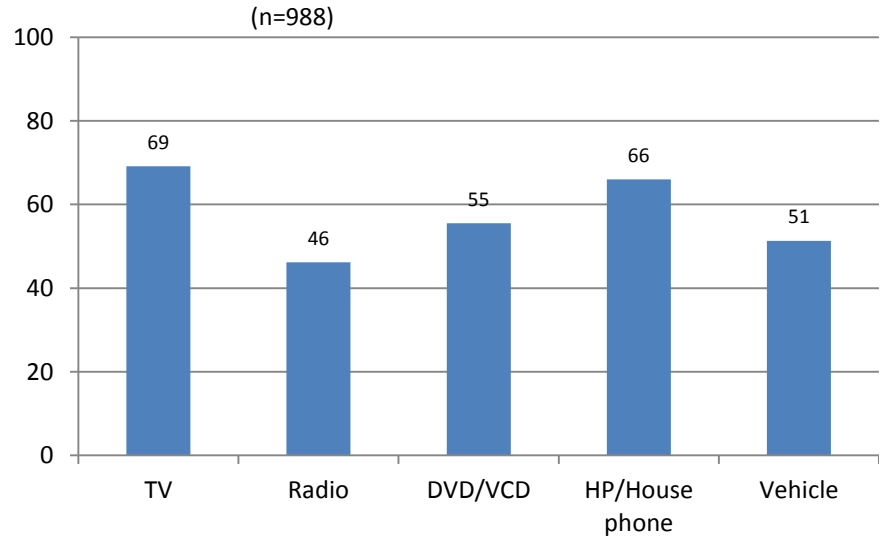
[26] One caveat is that the cost of travel may be higher than shown here because this data was not gathered for those teachers who were absent during the school survey.

treatment are from lowland easy-to-access districts. Most of them are from semi-urban or rural/isolated sub-districts. This adds to the difficulties experienced by teachers in highland districts and remote areas where rates of illness among teachers and their family members are higher compared to lowland easy-to-access districts. For example, although a higher proportion of teachers in highland districts experience some type of illness compared to others, a smaller proportion of teachers in the highlands travel to receive medical treatment. This may be due to high costs of travel. It may also explain why the proportion of deaths among teacher family members due to illness is higher in the highlands compared to other geographic categories.

3.5.7 Entertainment

The survey collected information on what types of entertainment items teachers possessed for additional information on teacher welfare. The hypothesis would state that the more entertainment items teachers have at home, the less likely they will be to travel for entertainment/recreation, and the less likely to be absent from school. The information can also help government assess the potential of strategies to support teacher training through ICT.

Figure 71. Recreational Items (%)



Results in Figure 71 show that 69% of teachers surveyed have a television in their home, 66% either have a mobile telephone or landline telephone, 55% have a DVD/VCD player, and 46% have a radio.

There were large disparities among geographic categories. ***The proportion of teachers with televisions was 81% in easy-to-access and 71% in hard-to-access districts while only 13% in highland districts. The proportion of teachers with radios was 61% in lowland easy-to-access districts, 31% in hard-to-access lowland districts and 10% in highland districts. The same basic pattern exists for other items including DVD players, home/mobile telephones and vehicles (Figure 72), and across sub-district categories where teachers in urban areas have higher rates of possession than their colleagues in semi-urban and remote/isolated areas (Figure 73).*** This may explain why so many teachers working in the highlands travel elsewhere for entertainment.

These findings should also bring pause (or require more creative solutions) for plans at improving teacher quality or 'governance' processes of the education sector through the use of ICT technologies that rely on telephone, computer and internet access. Teachers in remote areas typically do not have access to such facilities. As a result, a focus on ICT risks increasing educational disparities between remote and urban areas of Tanah Papua.

Figure 72. Recreation items by District category (%)

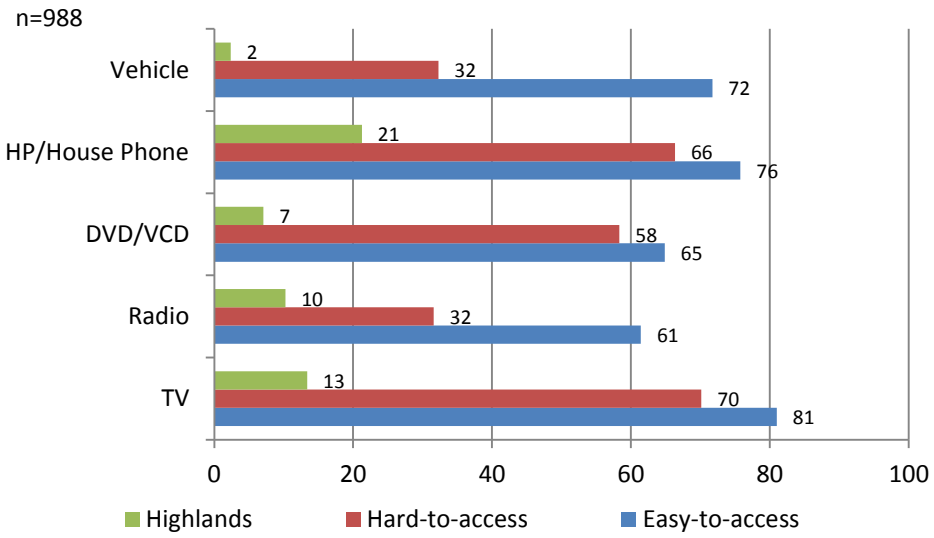
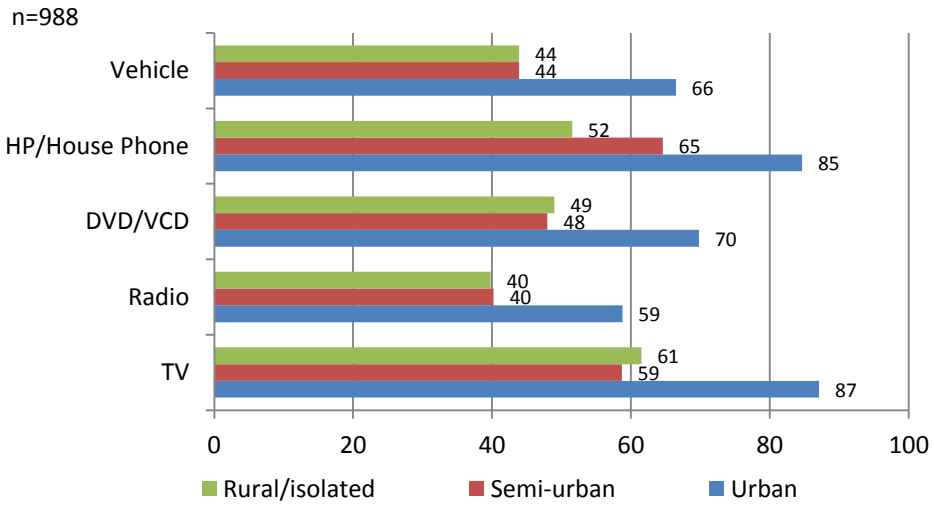


Figure 73. Recreation Items by Sub-district Category (%)

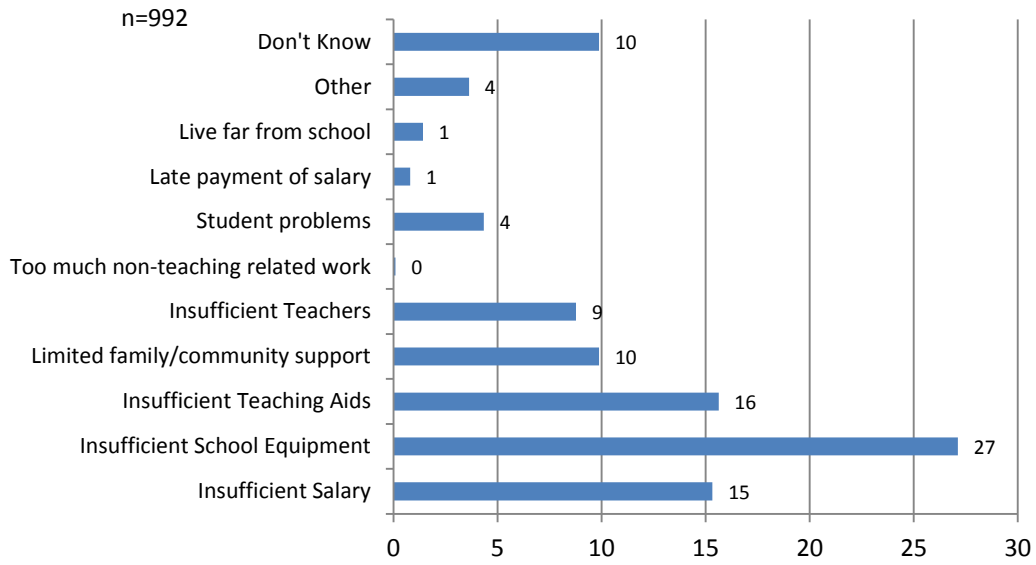


3.5.8 Main problems experienced by teachers

The survey asked teachers to list the main problems that they experience in their work. Results in Figure 74 show that the most common problem was 'insufficient school equipment' (27%) which refers to equipment and facilities such as desks, chairs, and toilets. This was followed by 'insufficient teaching aids' referring to books, maps, computers, toys, and others (16%), and insufficient salary (15%), cited largely by highland district teachers.

Other main problems included 'limited support of parents/community in learning processes', 'insufficient number of teachers' and 'student problems'.

Figure 74. Most common problems experienced by teachers (%)



Teachers also reported a range of 'other' problems (Table 16) that they experience in their jobs with many being listed by teachers from more remote areas.

Table 16. 'Other' problems experienced by teachers in remote areas

1.	Problems with arranging promotion
2.	Civil servant status not clear
3.	Limited government support
5.	School principal not in school
6.	Low transparency in management of BOS funds
7.	Incentives not effective
8.	Availability of food
9.	Home is far from the school
10.	Poor living conditions
11.	Limited access to clean water facilities
12.	Separated from family
13.	Transportation difficult
14.	Absenteeism of students
15.	Limited self-confidence
16.	Internal family problems

3.5.9 Teacher training

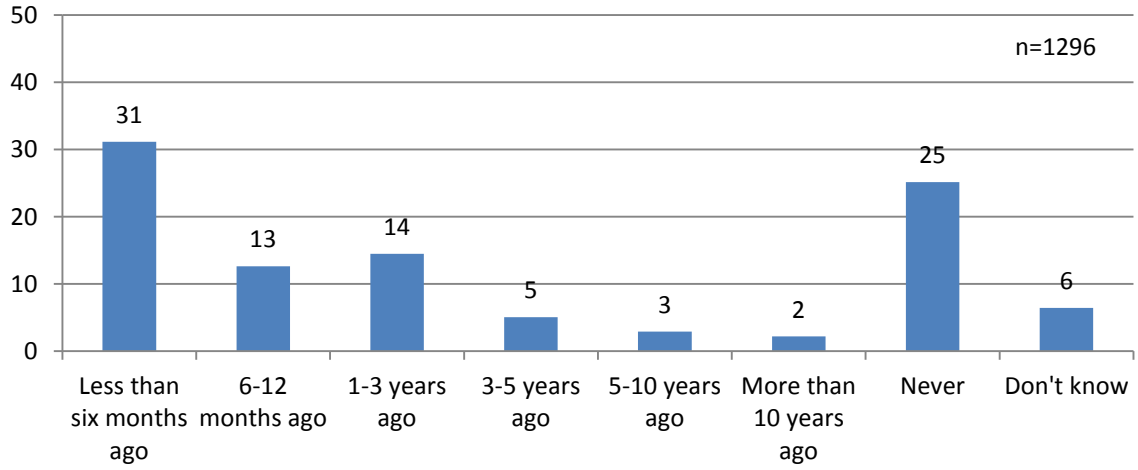
The study identified the following government programmes aimed at increasing the competency of teachers in schools: a) teacher certification programmes supported by the central government, b) teacher education through the PGSD programme (implemented by all sampled districts in the survey), c) in Jayapura District a unique programme related to

the 'election of teachers', d) teacher professional training programmes (implemented by all sample districts in the survey). Most teachers and other respondents noted that the various 'teacher improvement programmes' have acted as an incentive for teachers to continue improving their own education and qualifications.

Most teachers received some kind of professional training in the past year (about 70%), while 25% did not receive any professional development training in the same period (Figure 75). In highland districts, however, 13% had received training more than a year ago and over 40% had never received any kind of professional development training. Across all other geographic categories, between 17% and 32% of teachers also never received any professional development training during their entire career.

As such, survey findings suggest that 'in-service' training programmes for teachers that are of a short duration may have less of an impact on teacher absenteeism when compared to teacher certification programmes impemented by national and provincial governments because the latter tend to take teachers away from school for a longer period of time and also provide monetary incentives for teachers to be absent from school (i.e. as certification increases so does pay and status). Moreover, it is in highland districts where rates of absenteeism are highest, but it is also in highland districts where the smallest proportion of teachers have attended professional trainings of any kind during the one year period prior to the survey and in many cases have never received any training.

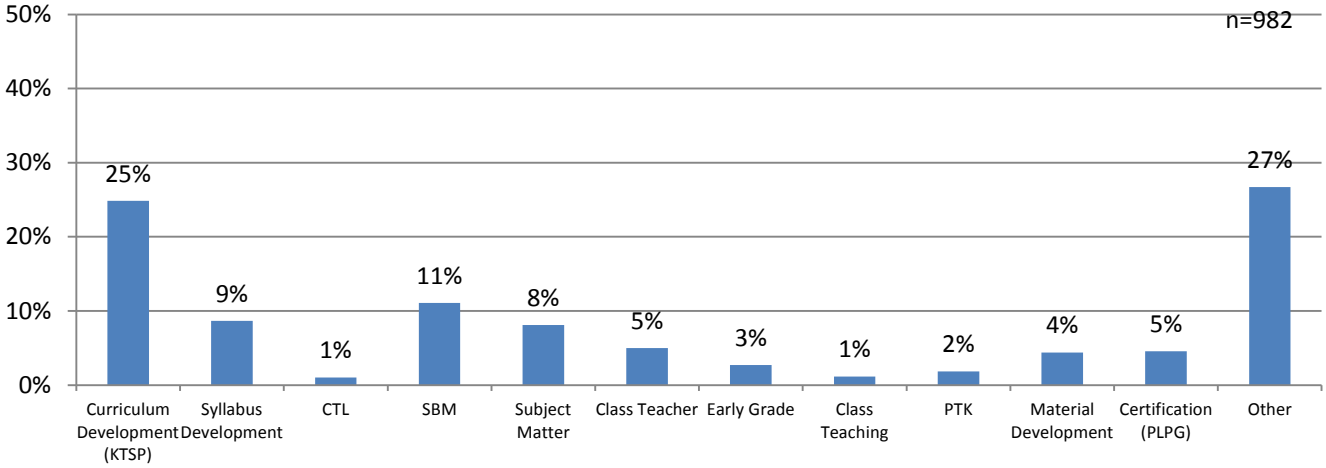
Figure 75. When last attended training (%), weighted estimates



The most common type of training for teachers was curriculum development (23%), followed by 10% of teachers who received training in SBM. Figure 76 shows the remaining categories. All training was delivered through teacher school cluster mechanisms such as teacher working groups and MGMP (Musyawarah Guru Mata Pelajaran). They are usually located relatively close to the schools of teachers compared to university certification programme.[27]

[27] In Merauke District it was identified that the government is implementing a special teacher training programme together with the Surya Institute in which as many as 40 mathematics teachers are sent to Jakarta for training for a period of three months.

Figure 76. Proportion of teachers by type of training (%), weighted estimates[28]



SBM training was mostly received by teachers in easy-to-access districts (18 %), with a very small proportions of teachers in hard-to-access districts (3 %) and highland districts (1%) participating in SBM training in the one year prior to the survey. The most common form of teacher training in highland districts was 'curriculum development' received by 50% of teachers in the highlands. All other forms of training were generally equally frequent across geographic categories.

Table 17. Type of training by district category

	Easy-to-access		Hard-to-access		Highlands		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Curriculum Development (KTSP)	123	23%	59	18%	62	50%	244	25%
Syllabus Development	48	9%	19	6%	17	14%	85	9%
CTL	5	1%	3	1%	2	1%	10	1%
SBM	98	18%	9	3%	2	1%	109	11%
Subject Matter	59	11%	16	5%	5	4%	80	8%
Class Teacher	24	5%	15	4%	10	8%	49	5%
Early Grade	12	2%	8	2%	7	6%	27	3%
Class Teaching	4	1%	2	0%	5	4%	11	1%
PTK	13	2%	3	1%	2	1%	18	2%
Material Development	34	6%	6	2%	3	2%	43	4%
Certification (PLPG)	35	7%	7	2%	3	3%	45	5%
Other	75	14%	181	55%	5	4%	261	27%
Total	530	100%	329	100%	123	100%	982	100%

3.6 COMMUNITY PERCEPTIONS OF TEACHER ABSENTEEISM AND IMPACTS ON CHILDREN

This section describes community perceptions on the quality of education for children in their province and the impact of teacher absenteeism on that quality. Findings reveal that

[28] Excludes teachers who have never received any training.

communities, particularly in highland districts, view teacher absenteeism as a major reason for children's poor performance, low participation and high dropout rates in primary school.

3.6.1 Community perceptions on education quality

For Tanah Papua overall, 66% of community respondents rated primary school education quality as 'good' or 'very good', 31% rated it 'not good' and 3% rated it 'very bad' (Figure 77). Respondents in Papua province had a better opinion on the quality of education in their communities than their counterparts in West Papua, even though education indicators[29] are lower in their province (Figure 78).

Figure 77. Perceptions of quality of education (%)

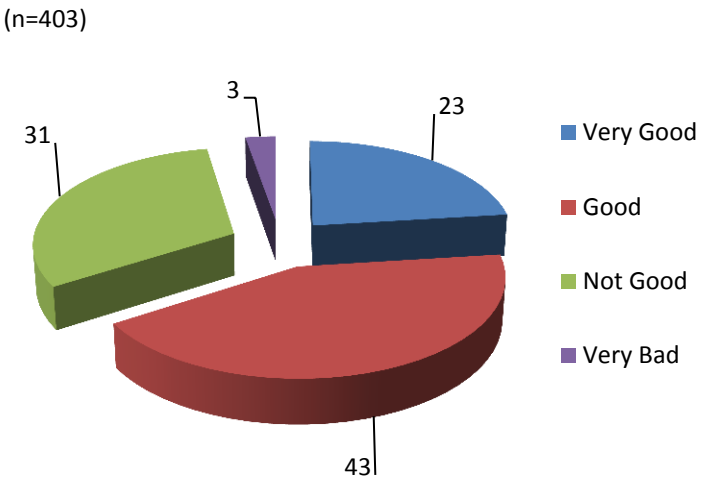
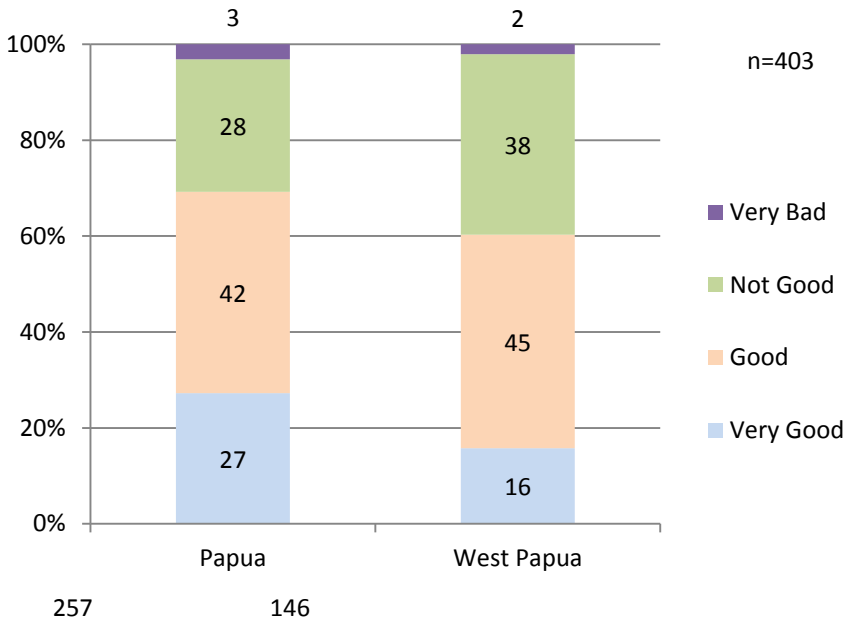


Figure 78. Perceptions of Quality by Province (%)



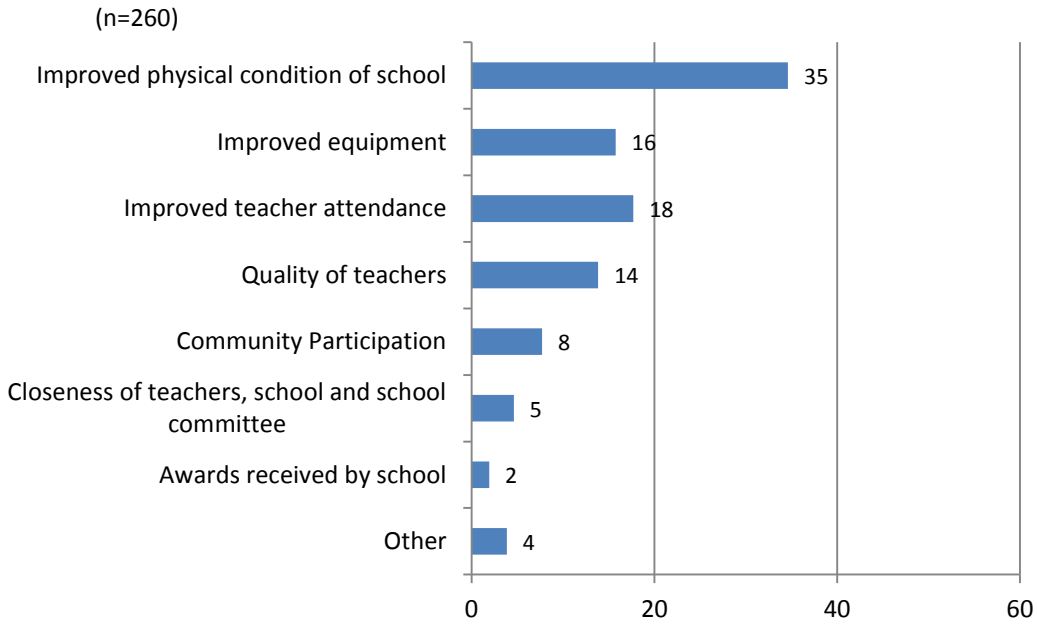
[29] Teacher absenteeism rates and drop-out rates are higher and student attendance is lower in Papua than West Papua.

A higher proportion of communities in the easy-to-access lowland districts perceived the quality of education as 'good' or 'very good' than in the highland districts (66% compared to 55%), and in urban areas than in rural/isolated areas (72% compared to 60%).

The highest proportion of respondents who rated the quality of education as 'not good' or 'very bad' were from highland districts (44%). This suggests that the quality of education services decreases with decreasing geographic accessibility and increasing remoteness/isolation of communities. This is likely because SBM, government oversight and teacher welfare tend to weaken with tougher geographic conditions.

Main determinants of education quality. Most community respondents viewed infrastructure and equipment-related issues as most important in ensuring quality education (Figure 79) suggesting perhaps a superficial view of children's education. Hence the majority of respondents (35%) reported 'improved physical condition of the school' and 16% reported 'improved equipment' as the main determinant of education quality. Of those who focused on the learning process, 18% cited 'improved teacher attendance' and 14% cited 'quality of teachers'. SBM-related issues like 'community participation' and 'closeness of teachers, school and school committee were chosen by 8% and 5% of respondents, respectively.

Figure 79. Determinants of education quality (%)

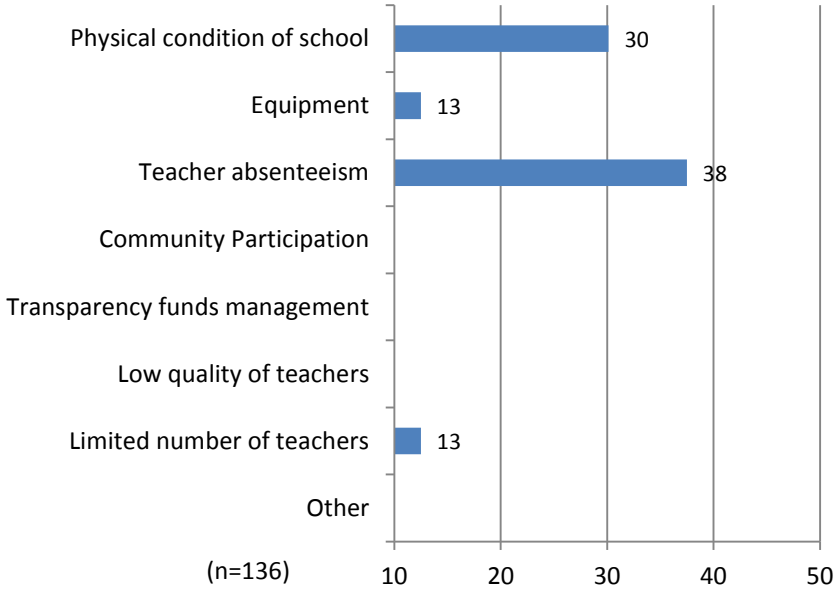


Community members who gave their schools a low ranking ('not good' or 'very bad') were additionally asked why they thought quality of education was low in their schools (Figure 80). ***'Teacher absenteeism' was the most highliy reported reason for low quality in their schools (38%)***. Almost a third of respondents (30%) thought 'physical condition of the school' was the main reason for low quality of education, while 13% thought 'lack of equipment' and 13% 'limited number of teachers'.

In highland districts, by far the two most commonly cited factors giving rise to low quality of education in schools is teacher absenteeism (listed by over 54% of respondents) and the

poor physical condition of schools (listed by almost 40% of respondents). None of the community respondents from highland districts report 'limited number of teachers' as being the major reason for low quality of education services.

Figure 80. Reasons for low quality of education (%)



Reading, writing and arithmetic competencies. Community members were asked to rate their perceived level of children's' competency in reading, writing and arithmetic based on general categories 'all', 'more than half', 'less than half' and 'only a few'.

Overall results (Figure 81) show that 44% of community members believe 'all' children in their community are able to read, write and count, 31% believe 'more than half' the children have those competencies, 20% think it is 'less than half' the children and 8% think it is 'only a few' children. More Papuans than West Papuans believe 'all' the children in their community can read, write and count (48% compared to 35%).

More respondents from West Papua perceive that children from their communities are weak in these competencies compared to Papua (28% compared to 21%). These community perceptions do not to correspond to BPS 2010 census data, which puts levels of illiteracy in Papua province above those in West Papua. Congruence with BPS data is higher by geographic category. In highland districts of Papua province, 53% of community respondents said that 'less than half' or 'only a few' children in their community are able to read, write and count (Figure 82). BPS 2010 census data states that 50% of the population in highland districts is illiterate. The most favorable perception of the children's reading, writing and arithmetic ability was in hard-to-access lowland districts and urban areas.

Figure 81. Community perceptions of children's ability to read write and count (%)

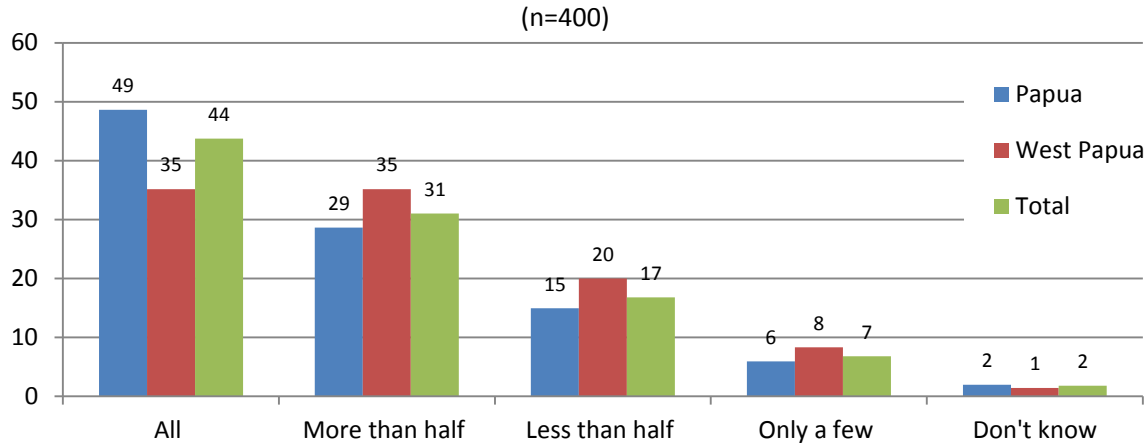
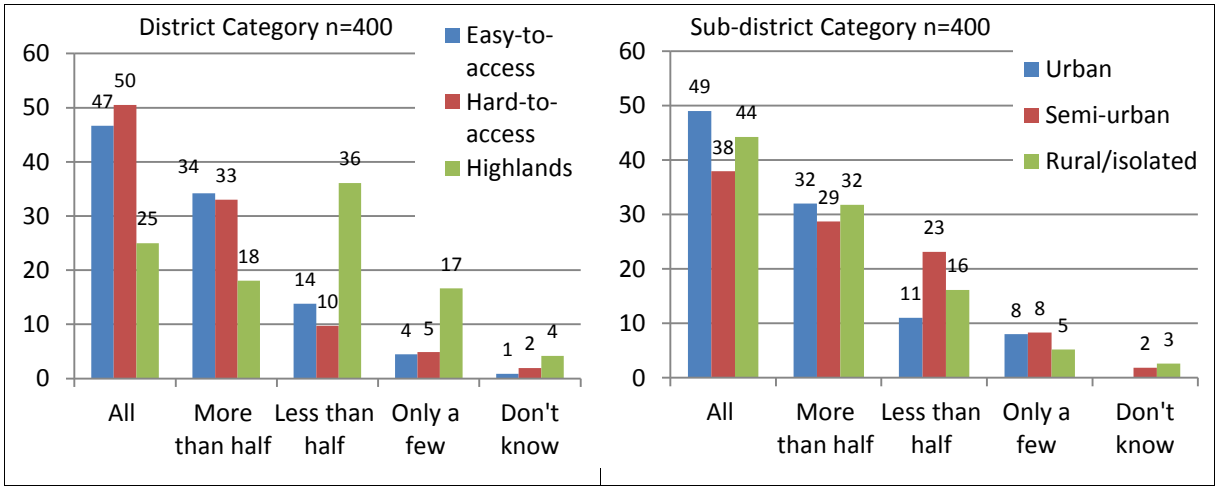


Figure 82. Reading, writing and arithmetic by geographic category (%)



Reasons for low learning outcomes. Community respondents were asked why they think children in their community cannot read, write or count. As seen in Figure 83, ***67% of respondents cited 'teacher absenteeism' as the main reason.*** Teacher absenteeism also the most frequently cited second reason (47%) for low educational outcomes of children, followed by 'low level of parental support for children' cited by 20% of respondents (Figure 84). 'Limited concern from government' was listed as the most important reason for low learning outcomes by only 4% of respondents, but was a prominent 'second most important reason', listed by 20% of respondents. Eleven percent of community members listed 'children often absent from school' as the main reason for low learning outcomes, but none listed it as the 'second most important reason'. This may suggest that student absenteeism is a less influential factor in low learning outcomes, which is additionally supported by compiled case study material.

Figure 83. Main reason for low educational outcomes for children (%)

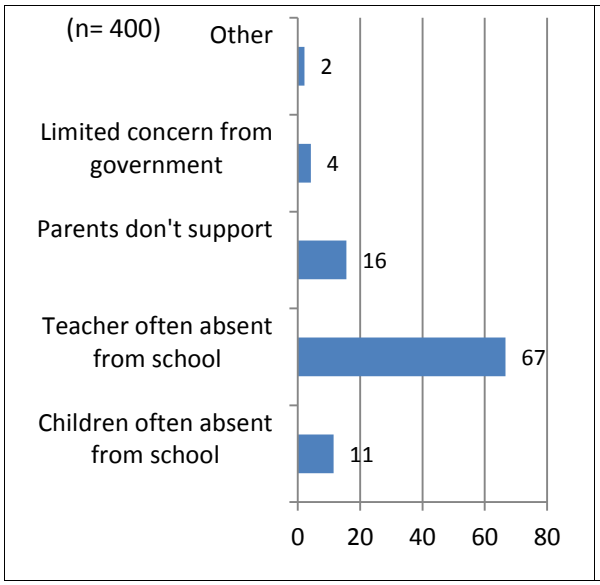
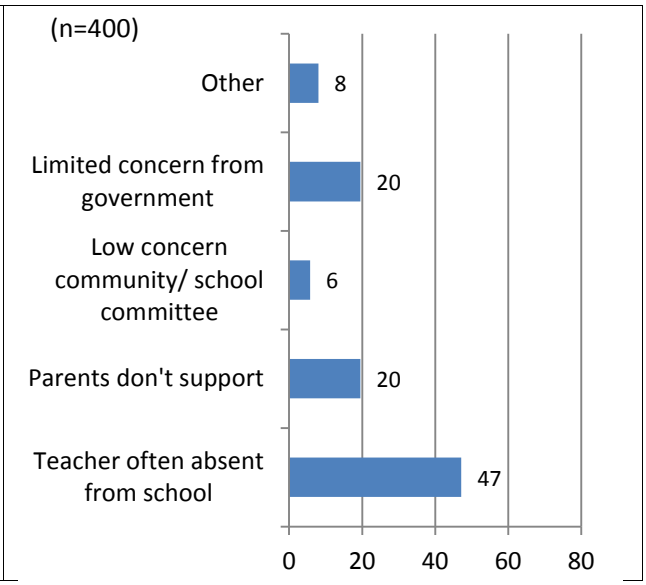


Figure 84. Second main reason for low educational outcomes for children (%)



The perception among community members that teacher absenteeism is the most important reason for children's low education competency was much higher in Papua province than in West Papua (79% compared to 50%). ***The impact of teacher absenteeism on student learning outcomes appears most dramatic in highland districts where over 88% of community respondents list this as the most important reason for low learning outcomes for children.*** Furthermore, very few community respondents in Papua province listed 'children often absent from school' as a factor, while many West Papuan respondents did. The study observed a much higher tendency to blame children for low learning competencies in West Papua compared to Papua province. For example, no community respondents in highland districts listed 'children being absent from school' as the most important reason for low learning outcomes, while in easy-to-access lowland districts, 21% of respondents did.

Figure 85. Reasons for low learning outcomes by district category (%)

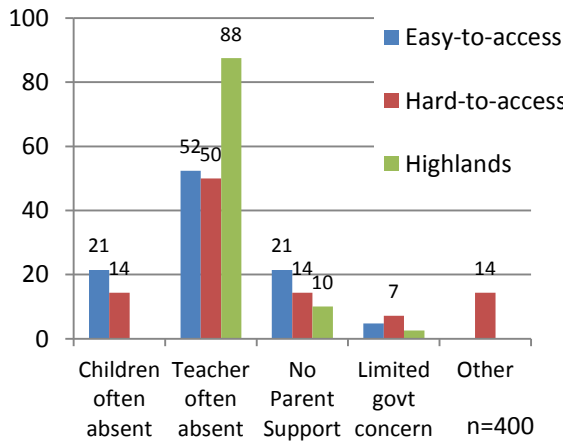
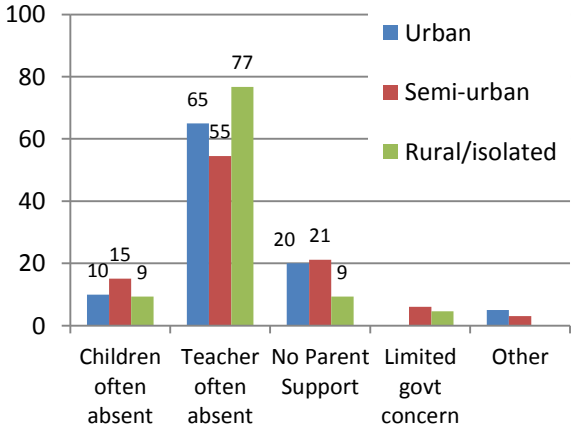


Figure 86. Reasons for low learning outcomes by sub-district category (%)



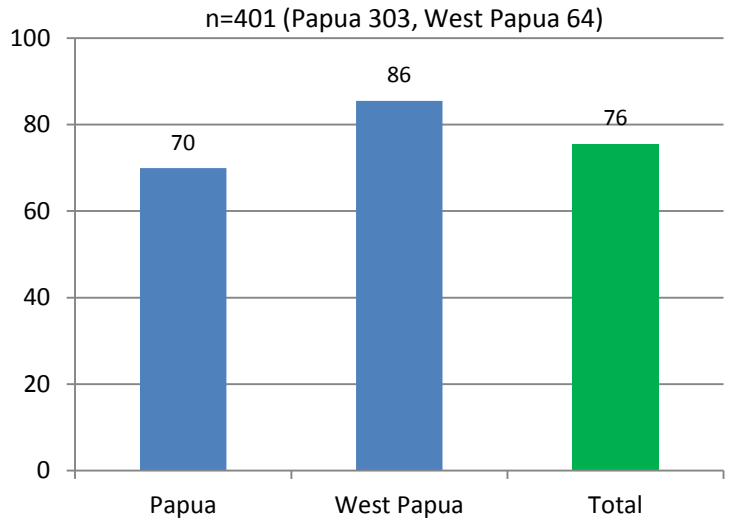
In other district categories, close to 50% of community members single out teacher absenteeism (Figure 85). 'Lack of parental support' is frequently listed as the most important reason across all geographic categories, especially easy-to-access lowland districts and urban and semi-urban sub-districts (Figure 86). ***Overall, both quantitative and qualitative findings demonstrate that the biggest reason for low student learning outcomes is teacher absenteeism.***

3.6.2 School enrolment and drop-out

The survey posed questions to community members on children's enrolment in school, school dropouts and the reasons for dropping-out.

Enrolment of children. Overall, 76% of respondents answered that all children are enrolled in school (Figure 87). The percentage is notably higher in West Papua than in Papua province (86% compared to 70%). These results are closely corresponding to the BPS 2010 Census figures on children's participation in education.

Figure 87. Child enrolment in school (%)



Disparities across different geographic categories were most evident at district level. In easy-to-access and hard-to-access lowland districts between 79% and 85% of community respondents reported that all children were enrolled in school. This compares to 55% of respondents in highland districts (Figure 88), making this most significant gap in children's participation in education. Across sub-district categories reported enrolment was more balanced, ranging from 73% to 80%.

Case Study 13. The Impacts of Teacher Absenteeism on Student's Reading Competencies

A number of community members from Manokwari and Jayapura Districts reported that teacher absenteeism has had a very negative impact on children's reading competencies. Most students, particularly those in Grades 1 to 3, are still unable to read. Some students now in Grades 4 to 6 have very poor reading skills while others are still unable to read and write.

> ***"The school principal and teachers have made my children more and more stupid. If the school makes no great effort to improve this situation, I will relocate all my children to another school."***

Another woman expressed her deep disappointment about the high rate of teacher absenteeism in the school. At one point she protested to the Head of the District Education Office together with some other parents.

> ***"We have for so long been disappointed with the teachers and the school principal, most of our children are still unable to read even though they are now in Grades 5 or 6."***

Because of frequent teacher absence, the school is forced to teach multiple grades at the same time (usually students of Grades 1, 2, and 3 in one class) and taught by a single teacher who has never received any training in multi-grade or early-grade teaching.

In one school, the rate of chronic teacher absenteeism is so high that children from higher grade levels have started teaching younger students to ensure those children get some kind of education.

Photo: Student teaching younger children because teacher absent from school.

School dropouts. Overall, 55% of community respondents reported that children in their communities dropped out of school. School dropouts were most frequently reported by community members from hard-to-access lowland and highland districts (61% and 64% respectively). In the highlands high dropout rate further compounds the problem of a low

student participation rate. High dropout levels were also reported in sub-district geographic categories, 37% in urban areas and 50% in semi-urban areas.

Never attended school. Overall, 44% of community respondents report that there are children of school age in their communities who have never attended school. Although highland districts have the largest proportion of such cases (55%), many community members in other district geographic categories also report that children have never attended school. This ranges from 40% in easy-to-access districts and 47% in hard-to-access districts (Figure 88), similar to the BPS 2010 Census data.

Figure 88. Children that have never attended school by district category (%)

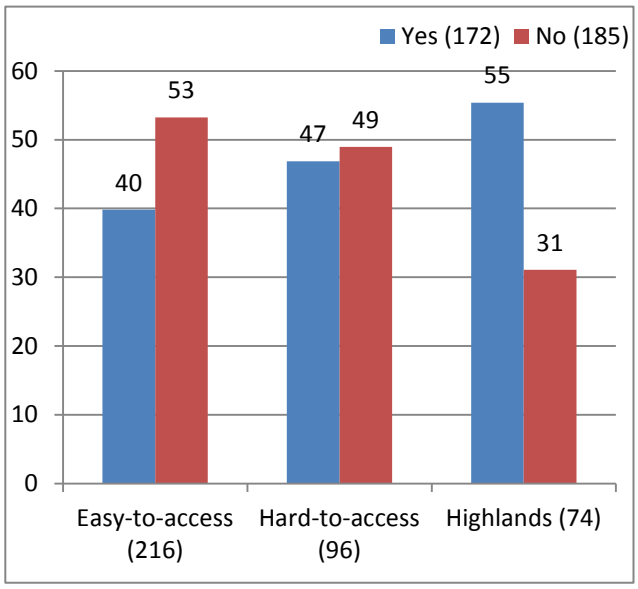
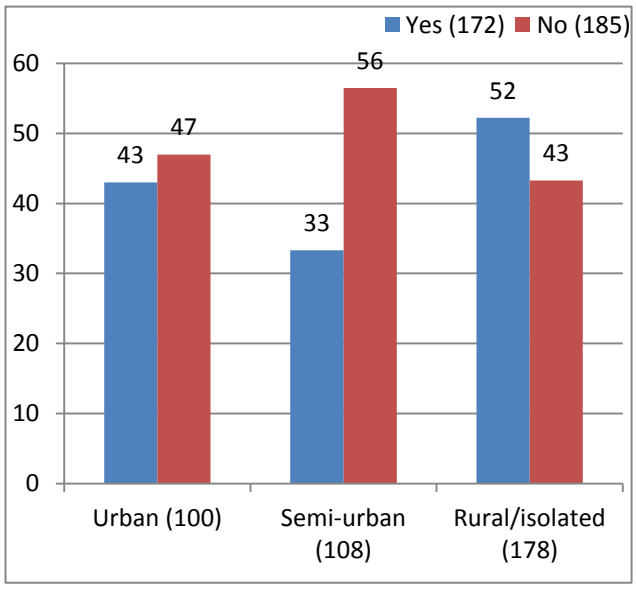


Figure 89. Children that have never attended school by sub-district category (%)



Reasons for dropping out and never attending school[30]. The most commonly cited reason for children dropping out of school (52%) was that 'parents do not support' their children's education (Figure 90). A range of 'other' reasons specific to local areas comprised the next most frequently reported reasons (17%). These include families who do not have money to send children to school, children's lack of interest, early marriage, and children with no parents.

'Work with parents in the fields/forests' was cited as the main reason for dropping out of school by 13% of community respondents, but even more frequently as the 'second main reason', by 40% of community respondents. Teacher absenteeism was listed as the main reason for school dropouts by only 8% of respondents. Community respondents from highland and lowland hard-to-access districts most frequently cited teacher absenteeism as the main reason for primary school dropouts (15% and 12% respectively). As shown in Figure 91, 17% of respondents listed it as the 'second main reason' for dropouts.

[30] We would prefer to use the term 'early school leaving'. However, for language issues and simplicity of translation into bahasa Indonesia we use the term 'drop out' as there is not yet a commonly understood translation for 'early school leaving'.

Long distance from home did not emerge as a major reason for children dropping out of school. It was listed as the main reason by 5% of community members and the 'second main reason' by 7%. Similar percentages are repeated across geographic categories, including highland districts and rural/isolated sub-districts.

Although the community perceived lack of parental support for their children's education as the main cause of school dropouts, teacher absenteeism can still be considered an important contributor once family-related pressures are excluded.

Figure 90. Main reason for dropouts (%)

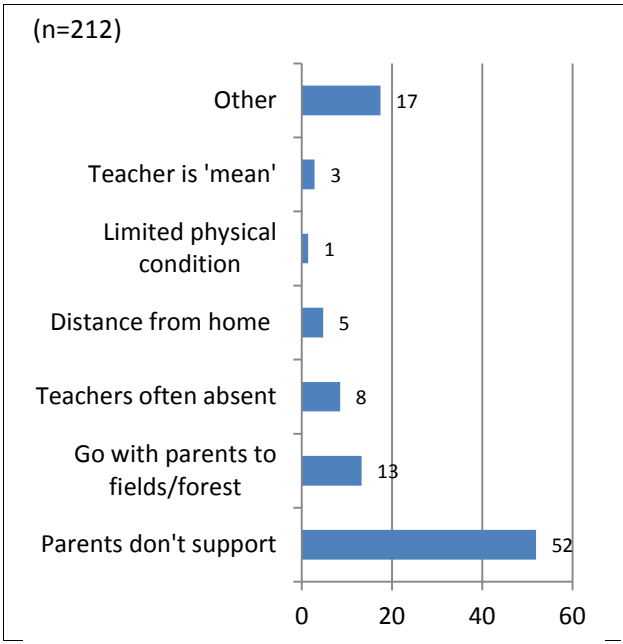
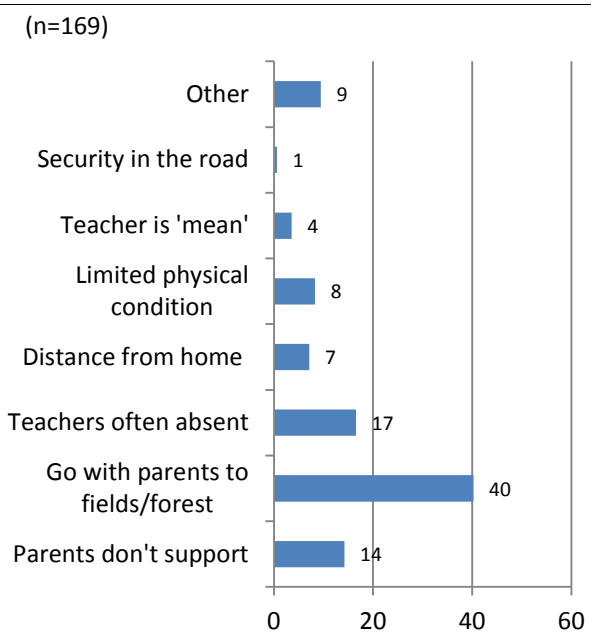


Figure 91. Second main reason for dropouts (%)



Reasons for never attending school. Community perception of the reasons some school age children have never attended school were very similar to those for students dropping out of school. Results show that 49% of respondents cited 'lack of parental support' as the most important reason, followed by 'other' reasons and 'assisting parents in the field/forest' (Figure 92). Working with parents was also the highest ranked 'second main reason' children have never attended school (Figure 93). Geographically, working with parents was most commonly cited by respondents in highland districts (22%), and more frequently in rural/isolated sub-districts than urban and semi-urban sub-districts (21% compared to 14%). 'Other' factors were listed by 17% of community respondents, most often related to the inability of families to pay school fees.

The main difference between reasons for 'student dropouts' and 'children never attending school' was 'distance from home'. 'Distance from home' is listed more frequently here, as the main reason by 7% of respondents, and 'second main reason' by 15% of respondents. ***These results put 'distance from home' on an equal level with 'teacher absenteeism' as a main contributor for children never to have attended school.*** Possible explanation that teacher absenteeism is listed as a reason at all is that in areas where teachers are often absent parents see no value in sending their children to school.

Figure 92. Main reason children never enrolled in school (%)

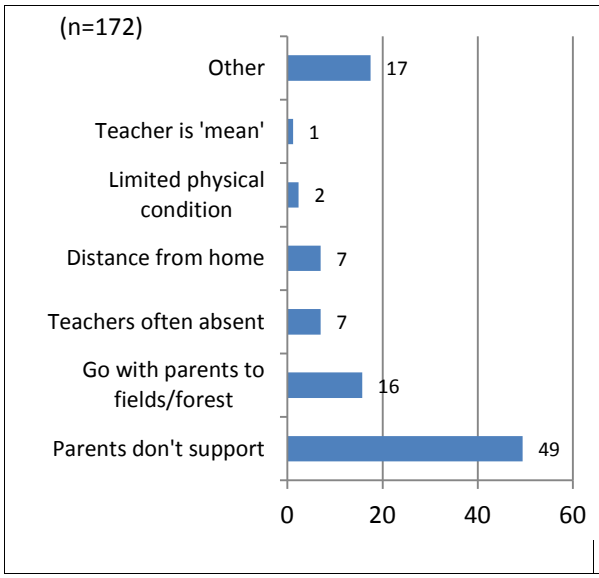
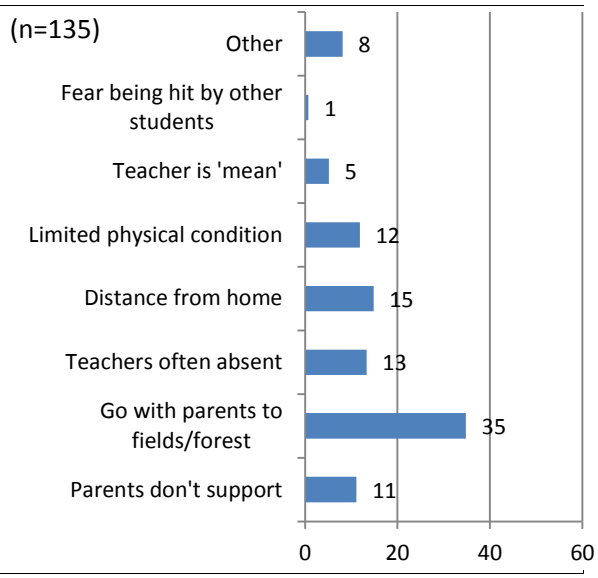


Figure 93. Second main reason children never enrolled in school (%)

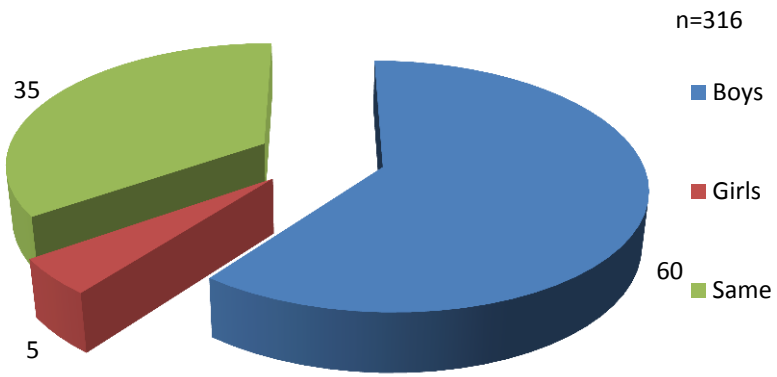


3.6.3 Community perceptions in gender and education

Earlier sections of this study revealed slight gender imbalances in the participation of boys and girls in school, especially in highland districts. The survey thus asked community members if they had gender-based preferences for school participation and why.

Most community members expressed a gender-balanced view of boys' and girls' participation in education, with 85% stating they do not distinguish between boys and girls. Of the remainder, 13% prioritised boys and 2% prioritised girls. The lowest proportion of community respondents who prioritised girls was from highland districts (8%). Respondents who prioritised boys also provided gender-biased reasons. These include that boys will become 'leaders of households', are 'more able to learn', 'girls will get married' thus not much value in education for girls, and boys will become 'leaders of society'. On the other hand, the most gender-balanced views were expressed by community members in highland districts where gender imbalances in education are the highest.

Figure 94. Financial pressure and gender preference (%)

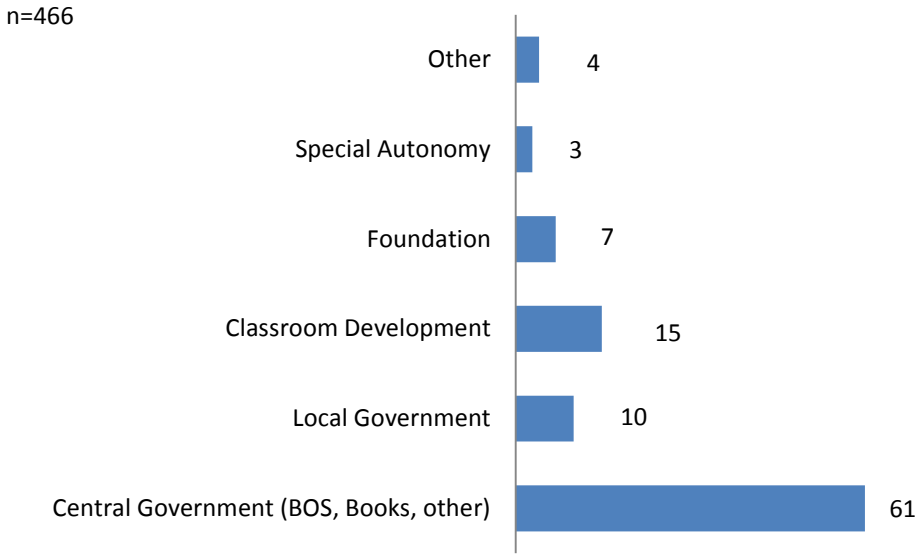


When asked who they would prioritise if faced with financial limitations, 60% of community respondents would prioritise boys (Figure 94). This preference is highest in easy-to-access lowland districts and in rural/isolated sub-districts. The most commonly cited reason for prioritising boys in times of financial hardship is that 'boys will become heads of households'.

3.6.4 Community awareness of Government support and teacher Incentives

Community members were asked about their level of awareness of government support programmes for schools and teacher incentives schemes. The aim was to verify school transparency and downward accountability from schools toward community members and community participation in school monitoring and school management.

Figure 95. Community awareness about government support programmes (%)



Most community members reported they were aware of government assistance programmes. The majority (61%), however, were only aware of the central government BOS funding to schools (Figure 95). Few respondents knew of special teacher incentive schemes or other forms of assistance for teachers. For all other forms of assistance, levels of community awareness ranged from 3%-15%.

There also appeared to be very low levels of transparency or community participation in the monitoring of teacher assistance schemes. Less than 20% of community respondents reported that schools display fund management reports in a public location. This lack of transparency is equally low across all geographic categories. Only in the small proportion of schools with a high SBM index, are fund management reports displayed publicly. Overall, most community members had little knowledge of teacher incentive programmes, their effectiveness or how school funds were managed.

4. FACTORS MOST ASSOCIATED WITH TEACHER ABSENTEEISM

This section provides statistical analysis of variables that were examined in relation to teacher absenteeism to identify those most strongly influencing teacher absenteeism rates. The purpose is to support government programming to prioritise and strengthen future interventions that will improve children's access to quality education services and overcome inequalities in education facing many children in Papua and West Papua.

4.1 Analytical Method

The first analysis tested the correlation of a series of variables to teacher attendance. This was followed by a logistic regression using four models. Model 1 explored correlation among several school variables with teacher absenteeism, model 2 explored correlations between teacher characteristic variables and teacher absenteeism, model 3 explored the correlations between several indices (teacher housing index, SBM index, and school infrastructure index) constructed in this study with teacher absenteeism, and model 4 determined the correlations between all variables combined. This last model was developed to support the prioritisation of government programming to address teacher absenteeism by strengthening interventions in areas that have the most impact. Analysis was conducted on two levels: analysis of the entire dataset and analysis between geographic district strata (highlands, easy-to-access lowlands, and hard-to-access lowlands).[31]

4.1.1 Correlation of independent variables to teacher absenteeism

Most variables tested were either positively or negatively correlated to teacher attendance but with varying levels of significance. The variable with the strongest positive correlation to teacher attendance was the 'housing quality index'. This is followed by 'receiving incentive', 'participation in community organizations', and 'marriage'. Other variables significantly correlated to teacher attendance are 'living in the same village as the school' (i.e. living close to the school), 'participation in a professional organization'; 'principal attendance', 'having a teacher attendance book', 'monitoring in the last six months', 'having a school committee', good quality of SBM, school infrastructure, whether or not a teacher has completed a university degree, and whether a teacher lives in government or private housing.

Variables that are negatively correlated to teacher attendance include being a candidate PNS teacher or PNS teacher (i.e. are less likely to be in attendance although only Candidate PNS is significant), attending training in the last month (although not statistically significant). The only variables that emerge as statistically significant regarding teachers not attending school are ethnicity and gender.

[31] Tables showing the results based on geographic district strata are included in Annex B.

Table 18. Comparison of independent variables and their correlation to teacher attendance

	Correlation With Teacher attendance	Absent		Present	
		N	Mean	N	Mean
Principal Attendance	.303**	424	.3396	837	.6583
Can show attendance book	.194**	422	.4597	836	.6615
Distance 100 Meters from road	.300**	427	.3888	841	.7004
Monitoring in the last six months	.173**	427	.4590	841	.6397
Have school committee	.219**	422	.6469	835	.8407
Male	-.162**	430	.6651	862	.4942
Indigenous Papuan	-.145**	434	.3871	862	.5406
Bachelor Degree or Higher	.136**	434	.0714	862	.1705
Married	.409**	434	.4608	862	.8503
Employment status CPNS	-.085**	410	.0951	855	.0503
Employment status PNS	-.002	410	.7244	855	.7228
Certified	-.016	200	.1350	828	.1220
Training last month	-.022	174	.3333	792	.3068
Origin from this district	.089**	434	.1912	862	.2726
Family living in other location	.027	152	.2237	728	.2541
Live in state provided house	.188**	434	.0899	862	.2471
Live in personal house	.279**	434	.2442	862	.5371
Living in same village as school	.369**	434	.2719	862	.6624
Participate in professional organization	.393**	434	.1336	862	.5429
Participate in political organization	.023	434	.0115	861	.0174
Participate in community organization	.439**	434	.1406	862	.6032
Receive incentive	.447**	434	.2742	862	.7413
SBM Index	.189**	426	21.8075	854	28.6066
Infrastructure Index	.235**	425	48.6063	838	58.7342
Housing Index	.634**	434	22.1710	862	67.8396

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

4.1.2 Overall results (logistic regression analysis)

As shown in Table 19, each model used for the logistic regression includes two columns presenting the results of the analysis. The 'Coefficient' column refers to the strength of the correlation between the independent variables listed in the far left side with '1=Attend' (or teachers being present in school). The 'Odds' column refers to the odds ratio that a teacher will either attend school if odd ratio is more than 1 or be absent from school if odd ratio is less than one, based on the independent variable as correlated to other independent variables. Findings in this more in-depth statistical analysis tend to be consistent with analysis conducted in earlier sections of this study and show commonalities with similar studies conducted in other countries. There are also several notable variations to findings from other studies that are most likely due to the unique context of Papua and West Papua.

Table 19. Correlates of teacher absenteeism (binary logistic regression)

Dependent variable = Attend: 1= Attend, 0=absent

	Model 1		Model 2		Model 3		Model 4	
	Coeff	Odd Ratio	Coeff	Odd Ratio	Coeff	Odd Ratio	Coeff	Odd Ratio
Principal attendance	0.924***	2.520					0.617*	1.854
	(0.138)						(0.257)	
Can show attendance book	0.344*	1.411					1.004***	2.729
	(0.138)						(0.280)	
Distance 100 meters from road	0.907***	2.478					-0.789*	0.455
	(0.140)						(0.327)	
Monitoring in the last six months	0.336*	1.400					-0.356	0.701
	(0.138)						(0.270)	
Have school committee	0.319	1.376					-0.155	0.856
	(0.163)						(0.333)	
Male			-0.576*	0.562			-0.308	0.735
			(0.249)				(0.280)	
Indigenous Papuan			-1.589***	0.204			-1.173***	0.309
			(0.308)				(0.332)	
Bachelor degree or higher			-0.160	0.852			-0.207	0.813
			(0.295)				(0.317)	
Married			1.046*	2.846			0.878	2.407
			(0.464)				(0.540)	
Employment status CPNS			-2.154***	0.116			-2.105***	0.122
			(0.548)				(0.600)	
Employment status PNS			-1.349***	0.259			-1.597***	0.202
			(0.398)				(0.450)	
Getting teacher certification			-0.184	0.832			-0.232	0.793
			(0.319)				(0.364)	
Training last month			-0.577*	0.562			-0.492	0.611
			(0.228)				(0.256)	
Origin from this district			0.00835	1.008			0.370	1.448
			(0.255)				(0.302)	

Family live in other location			0.195	1.216			0.186	1.205
			(0.258)				(0.283)	
Live in state provided house			0.366	1.442			0.244	1.277
			(0.374)				(0.408)	
Live in personal house			0.0952	1.100			0.0686	1.071
			(0.325)				(0.351)	
Live in same village as school			0.521*	1.684			0.829**	2.292
			(0.241)				(0.278)	
Participate in professional organization			0.718**	2.050			0.477	1.611
			(0.234)				(0.263)	
Participate in social organization			-1.082	0.339			-0.525	0.592
			(0.612)				(0.736)	
Participate in community organization			0.865***	2.375			0.820**	2.270
			(0.226)				(0.251)	
Receive incentive			0.449	1.566			0.705*	2.023
			(0.307)				(0.337)	
SBM Index					0.0184***	1.019	0.00476	1.005
					(0.00477)		(0.00830)	
Infrastructure Index					-0.00000465	1.000	0.00664	1.007
					(0.00422)		(0.00665)	
Housing Index					0.0473***	1.048	0.0257***	1.026
					(0.00269)		(0.00672)	
cons	-0.901***		1.985**		-1.982***		-0.559	
	(0.150)		(0.614)		(0.257)		(0.881)	
N	1240		804		1247		759	

Standard errors in parentheses

"* p<0.05 ** p<0.01 *** p<0.001"

Model 1 – School characteristics

Principal attendance. Teachers where a principal is present are 2.5 times more likely to attend school compared to cases where a principal is not in school. Under model 1 this is the most significantly correlated factor to teacher attendance in school.

Teacher attendance books. Having a teacher attendance book is also significantly correlated to teacher attendance. In those schools a teacher is over 1.4 times more likely to be present compared to those schools that do not have a teacher attendance book.

Distance. Findings show that teachers in schools that are less than 100 meters from a road are 2.4 times more likely to attend school than those teachers in school that are more than 100 meters from the nearest road.

Monitoring of schools. School monitoring conducted within the last six months by education office officials is positively correlated to promoting teacher attendance. The correlation is statistically significant with teachers being 1.4 times more likely to attend school compared to those that have been monitored at a longer interval. This suggests that distance to education offices is perhaps an important factor since many school supervisors do not visit schools because of distance (i.e. difficulty to access schools).

Similarly, having a school committee is positively correlated to teacher attendance, with a teacher 1.3 times more likely to be at school compared to those schools that do not have a school committee. However, when compared to other variables in this model it is not significantly correlated to teacher attendance. Nevertheless, under model 3 the SBM index (which includes school committee existence in schools and the quality of school committee work) community participation emerges as a significant factor for promoting teacher attendance in school.

Model 2 – Teacher Characteristics

Consistent with findings from comparative studies in Indonesia and other countries,[32] this study finds that teacher attendance in school is significantly influenced by gender and marital status when correlated with a range of other teacher characteristics. Similarly, there is a positive correlation between marital status and attendance in school with the relationship being statistically significant and married teachers 2.8 times more likely to attend school compared to single teachers.

The variables most strongly associated with teacher attendance in school are 'living in the same village as a school' (teachers 1.6 times more likely to attend), 'participate in a professional organization' (teachers twice as likely to attend school compared to those who do not); and 'participation in community organizations' (teachers 2.3 times more likely to attend school compared to those who do not). These variables suggest that teacher

[32]Chaudhury et al (2004) provide comparative studies from Ecuador, India, Peru, Indonesia, Uganda showing that in India, male teachers are more likely to be absent. Findings from Indonesia, Ecuador, Peru, and Uganda also show that there is statistical association between gender and absenteeism. In Uganda, married teachers are more likely to be absent, while in other countries marital status did not influence teacher absenteeism.

commitment, professionalism and engagement with local communities play a major role in regular teacher attendance in school.

Consistent with Rogers (2004), this study finds that Civil Servants (PNS) with secure jobs as well as CPNS (with slightly lower job security) are less likely to attend school compared to contract or honorary teachers. While this may be due to issues of job security and not fearing heavy sanctions for being absent, previous sections also show that one reason PNS teachers are more frequently absent is because they lack accountability toward schools. This is especially true in the case of private foundation schools that have very little managerial control over PNS teachers. The finding is that PNS teachers are almost twice as likely to attend schools compared to other types of teachers.

Several other variables tested in this model are not significantly correlated to teacher attendance, which include the education level of teachers, teacher certification and family members living in other locations. These 'non-significant' relationships suggest that some of the common assumptions in Papua and West Papua about why teachers tend to be absent from school are unfounded. Other variables not significantly related to teacher attendance in school include whether or not a teacher lives in a private or state provided home, although teachers who live in state provided homes are more likely to attend school compared to those who live in private homes. Finally, whether or not a teacher receives an incentive does not emerge as being significantly correlated to teacher attendance (although under pair-wise bi-variate analysis above this emerged as a very significant factor).

Overall findings across the survey sample show that teachers who participated in some type of training in the six months prior to the survey were less likely to attend school when compared to teachers who did not receive training during the previous six months. Under model 2 this emerges as a statistically significant correlation, with such teachers almost 1.5 times less likely to attend school. However, this overall result may be biased to teachers in highland districts and remote areas (further discussed below).

Consistent with findings in previous sections, indigenous Papuan teachers are less likely to attend school compared to non-indigenous teachers. However, a much larger proportion of migrant teachers are found in easy-to-access and less remote areas of Papua and West Papua where conditions are better. Hence, this correlation to ethnic status may be misleading since indigenous Papuan teachers most frequently work in remote and difficult-to-access areas of the two provinces.

Model 3 – Quality Indexes

SBM emerges as having a significant correlation to teacher attendance in Model 3. This finding is also consistent with earlier sections of this study which demonstrate a very strong positive correlation between the quality of School Based Management and rates of teacher absenteeism.

Under Model 3 the quality of school infrastructure does not appear to have a significant correlatw with promoting teacher attendance in school when considered in relation to other variables such as SBM and the quality of teacher housing. This suggests that the quality of school infrastructure is perhaps itself dependent on effective SBM and school leadership, rather than being a determinant of teacher attendance. As suggested by several

case study respondents to this study, while infrastructure in a school might be poor, the quality of infrastructure depends on effective leadership of principals and School Based Management.

The quality of teacher housing emerges as the most statistically significant index associated with teacher attendance in school.

Model 4 – Combined variables

When considering all variables together there are several notable variations to the significant of different variables to teacher attendance in school. Principal attendance and 'attendance book' emerge as having a stronger correlation to teacher attendance while a number of other variables decrease in significance. This supports earlier findings in this study that effective school management is perhaps one of the most important factors for promoting high rates of teacher attendance in school

Ethnicity retains a significant correlation to teacher attendance, although slightly lower than in Model 2. When all factors are considered together, ethnicity of teachers is thus still a strong structural factor affecting teacher attendance but one that is also related to other variables such as school management, school monitoring, and living location.

The only other variables that emerge as having a very high correlation to teacher attendance in school are whether or not a teacher lives in the same village as the school (almost 2.5 times more likely to attend school); participation in community organizations (2.2 times more likely to attend school); and receiving incentives (two times more likely to be in school compared to those teachers who are not).

4.1.3 Lowland easy-to-access district results (logistic regression analysis)

Results for lowland easy-to-access district schools are generally the same as the overall results.

Principal attendance and having a teacher attendance book have a significant impact on promoting teacher attendance (respectively making teachers almost twice as likely to attend school compared to schools that do not have attendance books or where principals are absent).

Being less than 100 meters from a road increases the likelihood that a teacher will be in school. Presumably this is because it is easier to access services and purchase items that may be needed. It also increases the likelihood of external supervisions by the education department officials. Supervision thus seems to have a strong influence on teacher attendance in school, as there is a strong positive correlation between principal attendance and teacher attendance (though not statistically significant for this geographic category).

The only major difference in teacher characteristic variables is with participation in professional organizations and participation in political organizations. There is a highly significant correlation between attendance and teachers who participate in professional organizations (almost three times more likely to attend school). Conversely, there is a

statistically significant correlation between teacher participation in political organizations and 'non-attendance' in school. Additionally, there is not a significant correlation between teacher attendance and living in the same village as the school. This is probably because schools are more easily accessible when compared to other district categories.

The quality of housing remains a very important factor. Teachers who live in better quality homes more likely to attend school compared to those who live in houses of low quality.

There is also a difference for teachers who attended training in the six months prior to the survey. Teachers in easy-to-access districts are in fact more likely to be present in school if they had attended training. However, the correlation is not statistically significant. Nevertheless, attending training does not increase rates of absenteeism for teachers in easy-to-access districts. Possible reasons may be that more substitute teachers are available or that travel time to training locations is shorter compared to highland or hard-to-access districts.

For lowland easy-to-access districts SBM also remains a significant factor promoting teacher attendance in schools, as does the quality of teacher housing.

Model 4 – Combined Variables

Under combined variable analysis for this geographic category several variables lose significance in relationship to teacher attendance in school. While these variables retain a positive influence on teacher attendance they include: all school level variables, ethnicity, participation in professional organizations, and the quality of SBM.

Variables that retain a significant correlation to teacher attendance include: 'employment status' as either PNS or Candidate PNS; housing quality and type of house, and; participation in community organizations.

One variable also gains a significant negative correlation to teacher attendance in school: certification.

4.1.4 Lowland hard-to-access district results (logistic regression analysis)

Findings are generally congruent with easy-to-access districts, including the strong positive correlation between principal attendance and teacher attendance in school.

In lowland hard-to-access districts 'attending training in the past six months' is also positively correlated to teacher attendance in school, although the relationship is not statistically significant.

The availability of a 'dinas house' (teachers living in state provided school are more likely to attend school compared to those living in private homes), the quality of housing, as well as the distance from the house to the school (i.e., living in same village as school) are all important factors promoting teacher attendance in schools. While these variables are not significantly correlated to teacher attendance, it would seem that providing better quality

government housing that is close to schools is very important for promoting teacher attendance in hard-to-access districts.

Consistent with the overall findings, there is a positive relationship between SBM and teacher attendance in schools. This correlation, however, is not statistically significant. On the other hand, the relationship between teacher attendance and the quality of school infrastructure in hard-to-access districts is statistically significant.

4.1.5 Highland district results (logistic regression analysis)

For schools in highland districts, the only school-level variables that significantly correlates with teacher attendance is whether or not the school was monitored in the last six months and principal attendance. Teachers in schools monitored recently were more than four times as likely to be present in school compared to teachers in schools that had not been monitored. This suggests that monitoring may actually be very important across all district categories since being close to a road – which emerges as a significant variable across analytical models for lowland hard-to-access and easy-to-access districts – only makes it easier for schools to be monitored by education office supervisors.

The most significant correlation across all variables, however, is found with principal attendance in school. Those schools in the highlands that have a principal attending school will almost always ensure teachers attend school. This finding again speaks to the huge importance of effective management and leadership at school level.

Interestingly, unlike lowland hard-to-access districts where there is a greater ethnic diversity that makes it possible to establish meaningful statistical correlations between absenteeism and ethnic variables, in the highlands ethnicity does not emerge as being significantly correlated to teacher attendance. This is because most teachers in the highlands are indigenous which makes it difficult to correlate attendance to different categories of ethnic status as a determinant of teacher attendance (i.e. when the bulk of the surveyed population is of one ethnic group, ethnicity loses its explanatory power as a reliable determinant).

The quality of housing and how far a teacher lives from the school are all important variables for promoting teacher attendance in school. Living in the same village as the school is significantly correlated to teacher attendance in school, so teachers who live close to their schools (under Model 1 almost four times more likely to attend school and under Model 4 almost 15 times more likely to attend school compared school compared to teachers who live far from their schools).The provision of quality housing close to the school thus becomes an important combination of factors for promoting teacher attendance in highland districts.

Another important variation from the results in other districts is whether or not a teacher's family lives in a different location. It is not uncommon to hear government officials argue that teachers located in highland districts live without their families and as a result will often be absent because they leave their schools to visit family members. The analysis for highland districts tends to confirm this argument. Although the relationship is not statistically significant, teachers with family members living in other locations are less likely

to be present in school compared to teachers whose family members live in the same location.

For teachers in highland districts, attending training is also negatively correlated to teacher attendance. However, this relationship is not statistically significant and when all variables are combined under Model 4, analysis suggests that teachers who attend training are slightly more likely to attend school.

Participation in local community organizations also seems important in highland districts for promoting teacher attendance in schools. Teachers who are active in community organizations are five times more likely to attend school compared to those who are not. This suggests that 'social acceptance' and community participation may be a requirement for teachers to work effectively in highland district schools. At the same time, it also promotes good SBM, which also has a significant positive correlation to promoting teacher attendance in schools in highland districts.

Another variable significantly correlated to teacher attendance is marriage. In highland districts married teachers tend to be present in school much more than single teachers. Married teachers are 10 times more likely to be in school compared to single teachers. Under Model 4 analysis, teacher certification also emerges as significantly correlated to attendance. This is the only analytical model and geographic category for which this occurs.

When analyzed under Model 3 (teacher characteristics), receiving incentives emerges a positively correlated to teacher attendance in school, but this relationship is not statistically significant. However, under Model 4 analysis receiving incentives emerges as significantly correlated to promoting teacher attendance in school. The reason for this may be that few of the highland teachers in the survey had received incentives, suggesting weaknesses in targeting or executing incentive programmes in the highlands. Nevertheless, data shows that teacher incentive schemes are positively correlated to teacher attendance in highland schools.

Several variables of individual teacher characteristics also have a negative correlation with teachers attending school. These include whether a teacher is male, whether a teacher lives in a private home, and weather the teacher is a PNS (with PNS being the only variable that has a significant negative correlation to teacher attendance in school).

4. RECOMMENDATIONS

Overall teacher absenteeism rates remain high, a problem even more pronounced through regional disparities. The overall rate of ***teacher absenteeism is 33.5% - or one in three teachers across Tanah Papua.*** In West Papua the rate was 26% compared to 37% in Papua Province. These are conservative estimates given the number of schools closed across different geographic categories from which schools were survyed. The actual rates of teacher ***absenteeism may be up to 2%-3% higher*** than those observed in this study. ***Almost one in four teachers in the easy-to-access lowlands is absent from schools compared to one in two teachers in the highland districts.*** This means that rates of teacher absenteeism are highest in the district category where the proportion of out-of-school school-aged children is the highest (almost half of primary school-aged children are not enroled in school in the highlands – see Annex B).

Highland districts and remote and isolated areas are increasingly vulnerable from being left behind. In spite of this, there have been successes with government programmes to curb this trend, which demonstrates that through improved policies and effective implementation of programmes there is significant opportunity to reduce teacher absenteeism in Papua and West Papua.

A range of incentives has been attempted together with efforts to improve teacher welfare. This suggests that much of the efforts in Papua and West Papua have been focused on individual teacher characteristics - improving teacher welfare, competency and 'moral character'. The findings of this study support the notion that shifting the focus from 'personal' to governance and administrative systems will help rebuild the foundations of the primary education system and thus yield more widespread and permanent improvements, including teacher attendance. It is hoped that the findings and recommendations herein will assist policy-makers in further interventions in the primary education system in Papua and West Papua.

4.1 Management at school level

- Support improvements in the quality of School Based Management and devise a replication mechanism applicable across the provinces.
- Focus on improving leadership and management at school level. The primary focus would be on the principal. Strict recruitment guidelines and working guidelines outlining principal's responsibilities need to be developed to ensure qualified and competent principals who are able to manage schools more effectively.
- Specialized leadership training should be made available to school principals through the Educational Quality Assurance Council (LPMP) to ensure better management of schools.
- Encourage hands-on, regulated community participation in school decision-making and functional processes to increase the accountability to communities and children. This

will require technical support from donors and development partners to increase internal organizational capacity.

- Have open lines of communication at school, so that all staff present at school are informed about teacher whereabouts at all times.
- Introduce reward schemes as an incentive for teachers who demonstrate very high commitment and competencies in teaching children.
- Enforce applicable sanctions toward teachers who do not fulfill their duties in accordance with existing regulations in public civil service, including absentees, teachers who abuse their authority or engage in corporal punishment of children.
- Introduce a system in schools that ensures a substitute teacher is always available in case a regular teacher is absent from school. To support this, a specialized school level substitute teacher incentive programme should be developed together with school committees.
- School principals should coordinate with local governments on specialized incentive schemes for teachers in remote and hard-to-access areas. This includes the monitoring of teachers under specialized schemes.
- Provide greater authority/control to Foundation schools in evaluating the work performance and management of Civil Servant (PNS) teachers, many of who do not feel accountable to those schools.
- Recalling that the rate of principal 'non-attendance' in school is significantly higher than teacher absenteeism (or non-attendance) and is also strongly correlated to high rates of teacher absenteeism, introduce a maximum threshold for excused absence for school principals from their schools.
- Schools should limit the forms of 'excused' absence of teachers to avoid abuse of this privilege. This is especially true for teachers attending 'meetings', 'trainings', non-school related activities, and specialized teacher certification programmes.
- To strengthen SBM, schools should be given greater input to decisions regarding the recruitment, dismissal and posting of teachers in their schools.
- Local communities to support teachers to live close to their schools.

4.2 Teacher training and professional development

- Build on efforts to provide specialized pre-service training for candidate teachers to be stationed in rural/remote areas. This can include issues of effective School based Management, leadership and supporting student learning competencies. Pre-service trainings can be introduced through university, special remote area teacher training colleges or the LPMP.
- Increase mentoring services of the local government to schools through gugus. Local trainers can support professional competency development of teachers through the Teacher Working Group and Principal Working Group at gugus level. This would

introduce routine monitoring mechanisms through school gugus with the support of district level 'master trainers'.

- Make sure that if teachers are attending training, a substitute teacher system is in place. If a substitute teacher is not available, prohibit schoolteachers from leaving their classrooms unattended.
- Consider making greater use of Papua TV for trainings, linked to a provincial programme of making TVs available to teachers in all sub-districts across Papua Province.
- Introduce a rotation system where local teachers would gain preliminary work experience in schools outside of their place of origin and after a fixed period rotated back to their local school.
- Introduce pre-service and in-service training for early grade teachers in remote and hard-to-access areas which would include training on adjusting curriculum and learning schedules to accommodate the needs of small children, to help reduce dropout rates in primary school.
- Regulate the status of teachers attending professional development (are they still full-time employees, part-time or on long-term leave), ensure substitution teacher in place and have them sign commitment contract to attend school regularly.
- Ensure teacher scheduling which, in the case of 'excused' absence does not result in lost teaching time for students.

4.3 Teacher incentive programmes

- Work on better targeting of teacher incentive schemes to enable distribution to appropriate beneficiaries in rural and remote areas.
- Provision of incentives from local government to contract teachers working in rural and remote schools, such as higher remuneration for travel and entertainment
- Build on existing government programmes to improve the quality and availability of teacher housing facilities.
- Provide non-monetary incentives to teachers such as allocation of additional holiday time for teachers in remote areas who perform well and attend class regularly. Other non-monetary incentives include award systems for well-performing teachers, mentoring for professional development, and improved school infrastructure.

4.4 Governance and monitoring

- Strengthen teacher recruitment guidelines as well as teacher promotion systems.
- Promote transparency and accountability of local government.
- Legislate, or otherwise regulate the required keeping and use of teacher attendance books.
- Increase the monitoring of teacher attendance by involving communities through community-based monitoring systems.

- Strengthen the sub-district level capacity to monitor schools. This can overcome service delivery problems due to distance from district-level education offices.
- Introduce collective approaches for teacher promotion, especially for teachers in rural and remote areas. This will reduce administrative burdens and travel that has been associated with these processes.
- Pass teacher management regulations in line with the new national regulation that will strengthen the application of incentive/disincentive schemes and institutionalize effective SBM into the education sector and local schools.
- Approve increased funding to school supervisor monitoring (including operational and fixed).
- Establish 'remote area school task forces' that are empowered to take special measures to promote the improvement of education services in remote areas.

4.5 Infrastructure

- Increase provincial and district government support to improve the quality and availability of classroom learning aids and resources.
- Continue support from National, Provincial and District Government for school building rehabilitation programmes, including a focus on access to clear water facilities, electricity and libraries for children.

Photo: Children in school in highland district where teachers regularly attend school.

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ANNEX A: DEVELOPMENT PROFILE AND BASIC EDUCATION CONDITIONS IN PAPUA AND WEST PAPUA

Access and Isolation. Papua and West Papua are two of Indonesia's 33 provinces and are located in eastern-most part of Indonesia, with Papua bordering Papua New Guinea. The two provinces are regarded as being among the most hard-to-access of all the country's regions given the length of time required to reach the provinces from Jakarta, the capital of the country located on the island of Java, and the rugged topography of the two provinces.

The topography consists of forest-clad mountainous highland districts with population centers in widely dispersed hamlets. These are accessible in some cases only by air or several days walk. Access in many lowland districts can be equally challenging, with the population thinly scattered along rivers cutting far into the hinterland or in swamplands along the smaller streams.

It is estimated that only 60% of the population in Papua and 43% of the population of West Papua have access to roads (UNDP, 2009). Moreover, although the two provinces encompass 22% of Indonesia's land area, they have only 1.2% of the country's population (UNDP, 2005). As a result, small population centers are often dispersed over very wide geographic regions that are hard-to-access.

This low population density and remoteness of villages are constraints to effective education service delivery. Geographical and transportation difficulties have also contributed to poor supply of teachers and, it is often assumed, to chronic teacher absenteeism in remote areas. In fact, in the absence of reliable data, government officials and policy-makers have held to the view that the rates of teacher absenteeism in Papua and West Papua are highest among all the provinces of Indonesia.

Population

According to the 2010 national census, the combined total population of the two provinces is 3.635.093 (Badan Pusat Statistik, 2011)**,** of which about 78% are Papuan and the remaining are non-Papuan.[33] Of this, 20.6% are Islamic, 77.5% Christian (Protestant or Catholic), and the remaining 2% of the popoulation is comprised of Hindus, Buhdists, or other groupings. Across Papua and West Papua, there are also some 260 local languages reflecting the strong ethnolinguistic diversity of the region.

The population of Papua Province is much larger than West Papua, with some 2.83 milion people compared to 801,712. In Papua Province, 74% of the population lives in rural areas (52% male and 47% female), while 26% of the population lives in urban areas (54% male and 46% female). In West Papua there is a similar urban-rural divide with 70% of the population living in rural areas (53% male and 47% female) and 30% living in urban areas

33 BPS data for West Papua shows an almost even proportion of indigenous Papuan and non-Papuans. However, a clear definition of what it means to be 'indigenous Papuan' is not yet established, which makes analysis by indigenous and non-indigenous difficult.

(53% male and 47% female). The majority of Islamic residents reside in urban areas comprising some 39% of the urban population compared to 58% Christians, with the remaining urban residents comprised of a range of smaller faiths.

In rural areas of Papua Province the majority of the population is comprised of indigenous Papuans who are adherents to Christianity (92%) with a much smaller percentage of rural resident being Islamic (8%). There is a similar urban-rural divide found in West Papua with Islamic followers concentrated in urban and easy-to-access areas compared to Christians, who make up the majority of inhabitants in rural and hard-to-access areas (76% Papuan – the majority of whom live in hard-to-access lowland or highland districts).[34]

Reflecting the massivie disparities with access to educational services within Papua Province, some 37% of the population resides in highland districts, 41% in easy-to-access lowland districts, while another 21% in lowland hard-to-accessdistricts. On the other hand, in West Papua the majority of the population resides in easy-to-access lowland districts (67%) (Badan Pusat Statistik, 2011).

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Table 20. Tanah Papua, Population by Religion

	Islam		Protestant		Catholic		Hindu		Other/ no response		Total
Papua	450.096	15,8%	1.855.245	65,4%	500.545	17,6%	1.335	,05%	26.160	,9%	2.833.381
West Papua	292.026	36,4%	408.841	51%	53.463	6,6%	859	,1%	46.523	,8%	801.712
Total	**742.122**	**20,4%**	**2.264.086**	**62,2%**	**554.008**	**15,2%**	**2.194**	**,06%**	**72.683**	**2%**	**3.635.093**

Source: Budan Pusat Statistik, 2011

34 Lowland hard-to-reach areas – Papuan 83% and highland areas Papuan 98%.

Table 21. Population Distribution by District Category, Papua and West Papua

District	Number of Sub-districts	Villages	Population by Gender					% of Province
			M	% within District	F	% within District	Total	
Hard-to-access lowlands	***78***	***699***	***268.989***	***54%***	***225.416***	***46%***	***494.435***	***17%***
Asmat	***8***	***139***	***40.220***	***53%***	***36.327***	***47%***	***76.577***	***2,7***
Boven Digoel	20	122	30.408	55%	25.376	45%	55.784	2
Mamberamo Raya	8	58	9.763	53%	8.602	47%	18.365	0,6
Mamberamo Tengah	5	59	21.327	54%	18.210	46%	39.537	1,4
Mappi	10	137	42.765	52%	38.893	48%	81.658	2,9
Mimika	12	85	103.027	57%	78.974	43%	182.001	6,4
Supiori	5	38	8.342	53%	7.532	47%	15.874	0,6
Waropen	10	69	13.137	53%	11.502	47%	24.639	0,9
Easy-to-access lowlands	***106***	***875***	***521.909***	***53%***	***463.604***	***47%***	***985.513***	***35%***
Biak Numfor	19	187	65.600	52%	61.198	48%	126.798	4,5
Jayapura	19	144	59.527	53%	52.416	47%	111.943	4
Keerom	7	61	26.526	55%	22.010	45%	48.536	1,7
Merauke	20	168	103.078	53%	92.638	47%	195.716	6,9
Nabire	14	81	69.369	53%	60.524	47%	129.893	4,6
Sarmi	10	86	18.257	55%	14.714	45%	32.971	1,2
Kepulauan Yapen	12	111	42.965	52%	39.986	48%	82.951	2,9
Kota Jayapura	5	39	136.587	53%	120.118	47%	256.705	9,1
Highlands	***201***	***1.989***	***714.985***	***53%***	***638.448***	***47%***	***1.353.433***	***48%***
Deiyai	5	30	32.391	52%	29.728	48%	62.119	2,2
Dogiyai	10	79	42.542	51%	41.688	49%	84.230	3
Intan Jaya	6	37	20.745	51%	19.745	49%	40.490	1,4
Jayawijaya	11	117	101.217	52%	94.868	48%	196.085	6,9
Lannyjaya	10	143	79.691	54%	68.831	46%	148.522	5,2
Nduga	8	32	43.097	55%	35.956	45%	79.053	2,8
Paniai	10	70	80.437	52%	72.995	48%	153.432	5,4
Pegunungan Bintang	34	274	35.305	54%	30.129	46%	65.434	2,3
Puncak	8	80	49.260	53%	43.958	47%	93.218	3,3

Puncak Jaya	8	67	54.779	54%	46.369	46%	101.148	3,6
Tolikara	35	514	61.801	54%	52.626	46%	114.427	4
Yahukimo	51	518	86.735	53%	77.777	47%	164.512	5,8
Yalimo	5	27	26.985	53%	23.778	47%	50.763	1,8
Total Papua	***385***	***3562***	***1.505.883***	***53%***	***1.327.468***		***2.833.381***	***100***

West Papua

District	Number of Sub-districts	Villages	Population by Gender					% of Province
			M	% within District	F	% within District	Total	
Hard-to-access lowlands	***92***	***641***	***120.736***	***42%***	***133.895***	***47%***	***284.479***	***37%***
Kaimana	7	84	21.834	51%	20.976	49%	42.810	5,3
Teluk Wondama	13	75	12.581	53%	10.988	47%	23.569	2,9
Teluk Bintuni	24	114	30.574	55%	25.231	45%	55.805	7
Sorong selatan	13	110	33.197	53%	29.386	47%	62.583	7,8
Raja Ampat	17	97	22.550	23%	47.314	47%	99.712	12,4
Tambrauw	7	53	-	-	-	-	-	-
Maybrat	11	108	-	-	-	-	-	-
Easy-to-access lowlands	***62***	***552***	***269.318***	***52%***	***247.915***	***48%***	***517.233***	***67%***
Fak-fak	9	22	35.551	52%	32.565	48%	68.116	8,5
Manokwari	29	412	90.079	51%	86.768	49%	176.847	22,1
Sorong	18	118	52.398	53%	47.314	47%	99.712	12,4
Kota sorong	6	-	91.290	53%	81.268	47%	172.558	21,5
Total	***154***	***1193***	***390.054***	***51%***	***381.810***	***49%***	***771.864***	***100***

Source: Badan Pusat Statistik, 2011

Table 22. Population Distribution, Tanah Papua

District	Number of Sub-districts	Villages	Population by Gender					% of Tanah Papua
			M	% within District	F	% within District	Total	
Hard-to-access lowlands	***170***	***1348***	***389725***	***52%***	***359311***	***48%***	***749036***	***21%***
Asmat	8	139	40.220	53%	36.327	47%	76.577	2%
Boven Digoel	20	122	30.408	55%	25.376	45%	55.784	2%
Mamberamo Raya	8	58	9.763	53%	8.602	47%	18.365	1%
Mamberamo Tengah	5	59	21.327	54%	18.210	46%	39.537	1%
Mappi	10	137	42.765	52%	38.893	48%	81.658	2%
Mimika	12	85	103.027	57%	78.974	43%	182.001	5%
Supiori	5	38	8.342	53%	7.532	47%	15.874	0%
Waropen	10	69	13.137	53%	11.502	47%	24.639	1%
Kaimana	7	84	21.834	51%	20.976	49%	42.810	1%
Teluk Wondama	13	75	12.581	53%	10.988	47%	23.569	1%
Teluk Bintuni	24	114	30.574	55%	25.231	45%	55.805	2%
Sorong selatan	13	110	33.197	53%	29.386	47%	62.583	2%
Raja Ampat	17	97	22.550	23%	47.314	47%	99.712	3%
Tambrauw	7	53	-	-	-	-	-	
Maybrat	11	108	-	-	-	-	-	
Easy-to-access lowlands	***168***	***1429***	***791227***	***53%***	***711519***	***47%***	***1502746***	***41%***
Biak Numfor	19	187	65.600	52%	61.198	48%	126.798	3%
Jayapura	19	144	59.527	53%	52.416	47%	111.943	3%
Keerom	7	61	26.526	55%	22.010	45%	48.536	1%
Merauke	20	168	103.078	53%	92.638	47%	195.716	5%
Nabire	14	81	69.369	53%	60.524	47%	129.893	4%
Sarmi	10	86	18.257	55%	14.714	45%	32.971	1%
Kepulauan Yapen	12	111	42.965	52%	39.986	48%	82.951	2%
ayapura	5	39	136.587	53%	120.118	47%	256.705	7%
Fak-fak	9	22	35.551	52%	32.565	48%	68.116	2%
Manokwari	29	412	90.079	51%	86.768	49%	176.847	5%

Sorong	18	118	52.398	53%	47.314	47%	99.712	3%
Kota sorong	6	-	91.290	53%	81.268	47%	172.558	5%
Highlands	***201***	***1988***	***714985***	***53%***	***638448***	***47%***	***1.353.433***	***37%***
Deiyai	5	30	32.391	52%	29.728	48%	62.119	2%
Dogiyai	10	79	42.542	51%	41.688	49%	84.230	2%
Intan Jaya	6	37	20.745	51%	19.745	49%	40.490	1%
Jayawijaya	11	117	101.217	52%	94.868	48%	196.085	5%
Laniyjaya	10	143	79.691	54%	68.831	46%	148.522	4%
Nduga	8	32	43.097	55%	35.956	45%	79.053	2%
Paniai	10	70	80.437	52%	72.995	48%	153.432	4%
Pegunungan Bintang	34	274	35.305	54%	30.129	46%	65.434	2%
Puncak	8	80	49.260	53%	43.958	47%	93.218	3%
Puncak Jaya	8	67	54.779	54%	46.369	46%	101.148	3%
Tolikara	35	514	61.801	54%	52.626	46%	114.427	3%
Yahukimo	51	518	86.735	53%	77.777	47%	164.512	5%
Yalimo	5	27	26.985	53%	23.778	47%	50.763	1%
Total Tanah Papua	**539**	**4765**	**1.895.937**	**52%**	**1.709.278**	**47%**	**3.635.093**	**100%**

Source: Badan Pusat Statistik, 2011

Poverty and Human Development Index (HDI)

The Human Development Index is a composite indicator that includes three key development areas: life-expectancy at birth, *knowledge and education*, and standard of living (as indicated by gross domestic product per capita).

From 2006-2008 the HDI for Papua Province has experienced positive growth (2006-62, 75; 2007-63, 41; 2008-64.00; 2009-64.53, and 2010-64.93%). While similar figures for West Papua are not available, the provincial HDI level in 2009 demonstrated slightly better overall conditions compared to Papua Province, reaching 68.58. While these rates suggest positive progress over the past several years, the figures also represent a dramatic decline since the implementation of Special Autonomy in 2001, from a ranking of 22 prior to 2001 (when there were still only some 27 provinces in Indonesia and Papua and West Papua were still one province) (IIDP 2010). This places Papua and West Papua among the lowest of HDI levels across all Indonesian provinces (33rdand 30th respectively out of a total of 33), and far below the 2009 national average of 74,01 (Badan Pusat Statistik, 2009 and Indikator Penting Papua 2011).

Poverty levels

2010 BPS census data demonstrates that the overall levels of income poverty for Papua and West Papua Provinces is now some 40%, with significant disparities between and within the provinces. The overall poverty rates for both provinces are also significantly higher than the rest of Indonesia, where the aggregate poverty level is 13% (BPS Census 2010). In Papua Province, 34.5% of the population lives in poverty, with significant disparities between urban and rural areas (in urban areas, 5% of the population lives in poverty while in rural areas 43.5% live in poverty). The poverty level for West Papua Province is 46%, though disparities between urban and rural areas are similar to those found in Papua Province (urban 6%, rural 46%).

Between districts there also exist massive disparities regarding household poverty levels ranging from a low of 5.2% in Sarmi District to a high of 74.5% in Yahukimo District (hard-to-access areas) (Badan Pusat Statistik, 2011).

Table 23. Poverty Levels, Papua and West Papua, 2010

Provinsi	Total Population in Poverty (000)			Population in Poverty (%)		
	Urban	Rural	Total	Urban	Rural	Total
Papua	9,6	246,7	256.3	5,73	43,48	34,48
Papua Barat	26.2	735,4	761.6	5,55	46,02	46,02
Tanah Papua	***35,8***	***982,1***	***1017,9***	***5,64***	***44,75***	***40,25***

Source: Budan Pusat Statistik, 2011

Literacy, Papua and West Papua, 2009-2010

In the national census conducted during 2010 the illiteracy rate in Papua ('the ability to read and write')as measured by the 2010 census was recorded at 37% (or 938.074 people), while for West Papua the rate was much lower – 12%, (or 78.320 people) (Badan Pusat Statistik, 2011). Aggregate figures from the 2010 census, however, mask massive inequities within different regions of the two provinces. This is particularly the case in Papua Province where there is a large gap between urban and rural populations with illiteracy at 48% in rural areas, while in urban areas it is only 5%.

In West Papua, the gap between urban and rural areas is less dramatic but nevertheless significant, with illiteracy in urban areas at 5% (about the same as urban areas in Papua Province), while in rural areas of West Papua the rate is 15% - much lower than rural areas in Papua Province. The highlest levels of illiteracy in West Papu Province are found in hard-to-access lowland districts of Tambrauw (35%) and South Sorong (19%).

Rates of illiteracy also vary significantly between age groups and demonstrate significant gaps, especially in Papua Province. For those aged 15-44 years, the overall rate of illiteracy is some 17%, but much higher in Papua (31%) compared to West Papua (3.5%); for those aged 45 and over, the illiteracy rate is some 23%, and again much higher in Papua (36%) compared to West Papua (10%). Additionally, from 2009-2010 the two provinces have experienced opposite trends for overcoming illiteracy, with Papua province experiencing increasing levels of illiteracy for both age groupings (+1.5% and +4.4% respectively) while West Papua has experienced a decline for both age groups (-1.4 and 3% respectively).

Indonesian language speaking ability also varies greatly across Papua and West Papua, which indicates significant inequities regarding access to education services as well as the negative generational impact springing from limited access in rural areas. In Papua Province some 24% of the entire population is unable to speak Indonesian. The proportion of those unable to speak Indonesian in rural areas is however very high compared to urban areas. In rural areas, 32% of people are unable to speak Indonesian. Within this group, there is a roughly even split among males and females who cannot speak Indonesian (49% and 51% respectively) (Badan Pusat Statistik, 2011). This is compared to only 0.4% of the population in urban areas of Papua Province who cannot speak Indonesian. Representing the starkly different levels of access to education in the two provinces, only 1.3% of the overall population in West Papua is unable to speak Indonesian.

Table 24. Illiteracy by Age Groups 15 to over 45

Age Groups>	2009 (%)		2010 (%)	
	15 – 44	45+	15 - 44	45 +
Papua	29,23	31,7	36,15%	40,58%
Papua Barat	5,01	13,4	8%	15,41%
Tanah Papua	***17,12%***	***22,55%***	***22,08%***	***28,0%***

Source: Budan Pusat Statistik, 2011

Table 25. Illiteracy, above >5 years of age 2010, Papua Province by District

Papua Districts	Female (%)	Male (%)	Total (%)
Hard-to-access lowlands	***32,45***	***26,33***	***29,15***
Asmat	44,81	37,47	40,96
Boven Digoel	19,71	13,99	16,55
Mamberamo Raya	71,46	60,96	65,8
Mamberamo Tengah	66,24	51,69	58,44
Mappi	23,96	19,65	21,7
Mimika	11,49	8,01	9,5
Supiori	11,32	10,4	10,84
Waropen	10,6	8,44	9,45
Easy-to-access lowlands	***18,7***	***13,93***	***16,15***
Biak Numfor	7,05	6,45	6,74
Jayapura	53,33	40,63	46,78
Keerom	19,72	12,57	15,79
Merauke	10,44	8,3	9,31
Nabire	15,71	11,84	13,63
Sarmi	23,42	15,98	19,26
Kepulauan Yapen	15,51	12,07	13,73
Kota Jayapura	4,38	3,61	3,97
Highlands	***68,26***	***60,95***	***64,42***
Deiyai	59,71	49,45	54,41
Dogiyai	64,39	56,01	60,17
Intan Jaya	78,01	70,15	74
Jayawijaya	53,33	40,63	46,78
Lannyjaya	63,2	56,51	59,61
Nduga	93,18	91,14	92,07
Paniai	63,61	57,19	60,25
Peg.Bintang	71,46	60,96	65,8
Puncak	78,9	73,92	76,28
Puncak Jaya	70,59	64,53	67,31
Tolikara	56,27	49,62	52,68
Yahukimo	74,11	64,98	69,29
Yalimo	60,56	57,22	58,79
Total Papua	***40,33***	***34,5***	***37,23***

Source: Budan Pusat Statistik, 2011

Districts, West Papua	Female (%)	Male (%)	Total (%)
Hard-to-access lowlands	***19,57***	***15,06***	***17,15***
Kaimana	11,98	9,24	10,51
T. Wondama	18,36	13,98	15,98
Teluk Bintuni	18,72	11,72	14,79
Sorong selatan	21,72	16,58	19,01
Raja Ampat	10,4	8,7	9,49
Tambrauw	39,07	31,05	34,82
Maybrat	16,75	14,15	15,42

Easy-to-access lowlands	***11,85***	***8,74***	***10,2***
Fak-fak	7,07	5,94	6,47
Manokwari	20,21	13,74	16,79
Sorong	14,83	10,77	12,66
Kota sorong	5,28	4,53	4,89
Total West Papua	***13,63***	***10,09***	***11,75***

Source: Budan Pusat Statistik, 2011

Limited early childhood development services

It is widely recognized that early childhood development is an important factor in ensuring children's preparedness for school, mitigating grade repition and drop-out, as well as preparing children mentally and emotionally to survive through school. However, within the provinces of Papua and West Papua there is an under-supply of early childhood development services such as ECD and kindergarten.

Government statistics in Papua and West Papua regarding early childhood development are weak. Early Childhood Development and Kindergarten fall outside of formal schooling categories such as primary school and are instead classified as 'non-formal' education – instead fallng into the category of 'remedial education packets' for children, adolescents, and youth who have dropped out of school. As a result, ECD tends to receive less attention compared to formal education services. Official government statistics for Papua and West Papua list some 1,062 kindergarten facilities for children aged 5-6 years old (Education Profile, Papua and West Papua 2010/2011). The proportion of kindergartens located in West Papua is higher compared to Papua (65% and 35% respectively), even though the population of children in Papua is much higher than in West Papua. While this demonstrates a significant disparity for children in Papua regarding the supply of learning facilities, further disparities exist as many kindergarten facilities are concentrated in urban areas or operate in Posyandu in rural areas.

Similar supply side disparities emerge with the availability of kindergarten teachers in the two provinces, with roughly 59% found in West Papua compared to 41% in Papua from a total of 2,916 (Profil Layanan Pendidikan Provinsi Papua Tahun 2010/2011). Consequently, children in rural areas, particularly those in Papua, have either limited or no access to ECD services. The quality of teaching is typically low, with no official training programmes in place for kindergarten teachers, most of whom are youth recruited as 'contract' teachers themselves who receive no formal training for supporting early childhood learning, and no incentives to work in rural areas as they are not PNS (*Pegawai Sipil Negeri*, or State Civil Servants). Supply-side issues are further exacerbated due to a lack of contextually appropriate learning materials for local children, particularly indigenous Papuans in remote areas.

Basic Education Participation, 7-12 year-old children

At national level, the school participation rates for primary and Junior Secondary school levels has remained fairly constant over the past several years, with 2010 census data showing that the school participation rate for children aged 7-12 years is 95% and for adolescents aged 13-15 the school participation rate is 83% (Badan Pusat Statistik, 2011). When comparing this National data to participation rates in West Papua, and especially

Papua Province, significant disparities are evident (West Papua - participation rate of 91% for 7-12 age group in 2009, Papua - participation rate of 87% for 7-12 age group in 2009 (National Government data 2010). However, in Papua Provice provincial government data demonstrates that the NER is in fact singificantly lower than shown in official national statistics. The primary school NER for Papua Province stands at just over 55%, with a the school enrolment rate for 7-15 year old children at some 65%. This latter figure roughly corresponds to BPS national census data, shown further below. Additionally, according to provincial government data the lowest NER is found in the highland districts of Papua Province, at some 26.5% of primary school aged children.

Table 26. School Participation Rates – Primary School, Papua Province by District Category

District/ Kota	NER			School Enrolment		
	Male	Female	Average	Male	Female	Average
Hard-to-access lowlands	***58,12***	***59,8***	***59***	***60,7***	***59,5***	***60,1***
Asmat	88,81	77,6	83,2	94,56	89,98	92,4
Boven Digoel	69,25	71,11	70,2	68,72	71,47	70,01
Mamberamo Raya	-	-	-	-	-	-
Mamberamo Tengah	-	-	-	-	-	-
Mappi	70,32	69,1	69,7	68,2	67,03	67,65
Mimika	95,76	93,22	94,5	98,37	99,16	98,74
Supiori	77,51	108,95	93,2	86,79	85,13	86,01
Waropen	63,32	58,39	60,9	68,81	63,34	66,22
Easy-to-access lowlands	***79,2***	***80,6***	***79,9***	***96***	***95***	***95,6***
Biak Numfor	92,12	93,56	92,8	92,07	94,94	93,42
Jayapura	91,26	90,27	90,8	97,54	96,73	97,15
Keerom	86,13	88,89	87,5	97,68	95,65	96,73
Merauke	79,41	82,85	81,1	89,68	93,45	91,45
Nabire	54,73	55,99	55,4	98,13	98,54	98,33
Sarmi	51,32	49,78	50,6	99,47	83,85	92,13
Yapen Waropen	85,75	87,58	86,7	93,88	97,18	95,43
Kota Jayapura	92,83	96,11	94,5	100	100	100
Highlands	***29,3***	***23,7***	***26,5***	***42,3***	***36***	***39,3***
Deiyai	-	-	-	-	-	-
Dogiyai	-	-	-	-	-	-
Intan Jaya	-	-	-	-	-	-
Jayawijaya	47,45	43,07	45,3	92,07	88,15	90,21
Lanny Jaya	-	-	-	-	-	-
Nduga	-	-	-	-	-	-
Paniai	49,04	44,46	46,8	98,49	81,88	90,61
Pegunungan Bintang	73,47	78,85	0	79,84	87,51	82,91
Puncak	-	-	-	-	-	-
Puncak Jaya	55,35	38,9	47,1	96,91	68,24	83,44
Tolikara	97,74	77,51	87,6	92,81	71	82,47
Yahukimo	101,9	80,08	91	89,88	70,99	81
Yalimo	-	-	-	-	-	-
Total Papua 2010	***55,54***	***54,7***	***55,13***	***66,33***	***63,5***	***65***

Source: Office of Education, Youth and Sport, 2011

Out-of-School Children and Adolescents

Recent national census data provides perhaps the most updated and accurate data for identifying the number of children out-of-school in Papua and West Papua by different age groups, as shown below.

The overall percentage of children and adolescents aged 7-15 years who are out-of-school in Papua and West Papua is 52.5%, or 254,574 children and adolescents. However, the rate in Papua (55% out-of-school) is significantly higher than for West Papua (30%) with both being much higher than the national average (17%). There are also wide disparities between the two provinces for out-of-school children aged 7-12, some 40% in Papua compared to only around 11% in West Papua. Similar disparities are indicated for adolescents aged 13-15 years, with some 39% out-of-school in Papua compared to some 16% in West Papua. Within Papua, educational disparities are also high between groups in rural and urban areas, with the greatest percentage of those out-of-school within Papua found in hard-to-access lowland and highland districts.

Table 27. School Aged Children as proportion of Population in Papua and West Papua

School Age Groups	Papua				West Papua			
	Male	Female	Total	% total	Male	Female	Total	% total
0-4	165184	148211	313395	11	48325	45372	93697	12
5-6	236792	63939	135712	5	-	-	37156	5
7-12	231939	195295	427234	15	52135	48120	100255	13
13-15	98512	81230	179742	6	22289	20546	42835	5
16-18	87178	74824	162002	6	21730	20052	41782	5
19-24	156369	154584	310953	11	47289	42965	90254	11

Source: Budan Pusat Statistik, 2011

Table 28. Children/Adolescents, Out-of-School by Age Group

Indonesia	5-6	7-12	13-15	16-1`8	Total
Indonesia in School	3.471.570	26.334.211	11.172.615	6.489.089	47.467.485
Population size	9.126.057	27.804.900	13.408.650	12.455.244	62.794.851
Out-of-school	5.654.487	1.470.689	2.236.035	5.966.155	15.327.366
% In school (overall participation)	38%	94,70%	83,30%	52,10%	75,50%
	7-15 year old out-of-school			**3.706.724**	**6%**

Papua Province	**Children/Adolescents, Out-of-School by Age Group**				
	5-6	7-12	13-15	16-18	Total
Papua in school	34.321	259.343	110.130	72.681	476.475
Population size	135.712	427234	179742	162.002	904.690
Out-of-school	101.391	167891	69612	89321	428.215
% In School (overall participation)	25,2%	60,7%	61,2%	44,8%	52,6%
	7-15 year old out-of-school		**237.503**	**39.1%**	

West Papua Province	5-6	7-12	13-15	16-18	Total
West Papua in school	14.027	89.277	36.742	25.845	165.891
Population size	37156	100255	42835	41782	222.028
Out-of-school	23.129	10.978	6.093	15.937	56.137
% In school (overall participation)	37,7%	89%	85,7%	61,8%	74,7%
	7-15 year old out-of-school		**17.071**	**11.9%**	

Papua and West Papua Combined	5-6	7-12	13-15	16-18	Total
In school children	48348	348620	146872	98526	642366
Population size	172868	527489	222577	203784	1126718
Out-of-school	124520	178869	75705	105258	484352
% In school (overall participation)	27,9%	66%	65,9%	48,3%	57%
	7-15 year old out-of-school		**254.574**	**33.9%**	

Source: Budan Pusat Statistik, 2011

Provincial Education Office data from Papua Province, which roughly corresponds the the census figures listed above, provides both encouraging and troubling data regarding educational disparities across Papua Province. In lowland easy-to-access districts, children's participation in education is 96% and reflects impressive progress over the past ten years with improving quality and access to educational services. However, levels of children and adolescent participation decline dramatically in hard-to-access and remote areas. In hard-to-access lowland districts, children participation in school (aged 7-15) is some 60%, while in the highland districts of Papua it is only 39% (Dikpora 2011).[35]

Highest levels of educational attainment. The inequities in access to education identified above are further demonstrated by the 2010 National Census. Across both Papua and West Papua provinces, 33% of the population over the age of five years has 'never attended/not yet attended school' (Budan Pusat Statistik, 2011). There is a fairly large disparity between Papua and West Papua where 38% compared to 11% of the population above five years of age have 'never attended/not yet attended school'. The most significant level of inequity, however, is found in rural areas of Papua, where some 50% of the population above five years of age has 'never/not yet attended school', compared to only 5.5% in urban areas of Papua, 5% in urban areas of West Papua, and 14% in rural areas of West Papua.

Table 29. Education participation of population <5 years of age, urban and rural

	No/Never in School	(%)	Still in School	(%)	No longer in school	(%)	Total
Papua Urban	35.479	5%	185.634	29%	415.222	64%	651.147
Papua Rural	931.782	50%	352.706	19%	551.582	30%	1.868.839
West Papua Urban	9.358	5%	59.011	29%	132.082	66%	201.048
West Papua Rural	63.740	14%	129.913	28%	266.015	57%	465.665
Total	***1.040.359***	***33%***	***727.264***	***23%***	***1.364.901***	***43%***	***3.186.699***

Source: Budan Pusat Statistik, 2011

Drop-out Rates. According to statistics drawn from the Ministry of National Education and Culture. Typically in locations that are hard-to-access rural areas that the rate of student drop-out from school can reach up to 50% at primary school level and 73% at Junior Secondary School (Ministry of National Education, 2007).

Figures suggest that the higher levels of drop-out in West Papua are reflective of the fact that more children and adolescents are enrolled in school and survive to Junior Secondary School level compared to Papua Province, where a large proportion of school-aged children are simply excluded from education due to deeply entrenched inequities.

Table 30. Transition Rates, Primary to Junior Secondary School, Papua Province, 2010

[35] This aggregate figure masks even lower levels of participation within the grouping of highland districts.

District/ Kota	Transition Rates		
	Male	Female	Total
Hard-to-access lowlands	***95,7***	***92,73***	***94,32***
Asmat	104,3	97	100,8
Boven Digoel	90,9	88,4	89,7
Mamberamo Raya	103,7	97,1	100,4
Mamberamo Tengah	103,6	89,2	97,4
Mappi	101,7	96,6	99,2
Mimika	103,3	102,6	103
Supiori	90,4	94,8	92,2
Waropen	68	76,1	71,9
Easy-to-access lowlands	***83,38***	***70,56***	***77,76***
Biak Numfor	75,9	74,4	75,2
Jayapura	108,2	94,8	102
Keerom	98,2	106,8	102,2
Merauke	89,4	80,3	85
Nabire	94,6	75,2	85,3
Sarmi	73,8	55,3	65,5
Yapen Waropen	75	32,4	57,7
Kota Jayapura	51,9	45,3	49,3
Highlands	***70,66***	***67,11***	***69,35***
Deiyai	34	26,4	31
Dogiyai	19,1	24,8	21
Intan Jaya	76,6	60,8	70,2
Jayawijaya	92,5	97,6	94,8
Lanny Jaya	97,3	89,2	94,3
Nduga	24,3	13,1	20
Paniai	62,2	69,6	65
Pegunungan Bintang	86,5	71,6	81,6
Puncak	66	56,3	62,6
Puncak Jaya	68,8	73,1	70,5
Tolikara	83,5	81,5	82,6
Yahukimo	103,5	111,5	107,2
Yalimo	104,3	97	100,8
Total Papua Province 2010	***90,9***	***88,4***	***89,7***

Source: Office of Education, Youth and Sport, 2011

Repetition Rates. Overall repition rates for primary school level in Papua and West Papua in 2010 were recorded at 6% and 7%. While figures for Papua represent a slight decrease in repetition rates compared to 2009, repetition is highest among early grade children in rural and hard-to-access areas where school facilities are weakest, where teachers are most often absent, and where standard national curriculum materials are poorly designed to address student learning needs.

At Junior Secondary School level, repetition rates tend to decline drastically, recorded at only 2% overall in Papua for 2010. One factor explaining this much lower level of drop-out is related to inequities in Papua – typically those children from the most advantaged families economically, geographically, or socially will survive to Junior Secondary School (JSS) level and are much better supported to continue to the end of Grade 9.

Gross enrolment ratios for primary and JSS levels in Papua and West Papua also demonstrate high levels of late school starting and/or grade repitition. In Papua Province, the overall enrolment by school level is 73% for primary and 54% for JSS, while in West Papua the rates are 123% and 83% (Badan Pusat Statistik, 2011). When compared to the overall population sizes of school aged children, these figures demonstrate that many older aged children either begin school late, or complete school late due to repitition of grade levels or late school entry (most commonly in rural or hard-to-access areas where access to educational services is limited). For those children in rural and hard-to-access areas, many begin school late, with no pre-school or early childhood learning experience, often speaking mother-tongue only with no Indonesian language skills.

As a result, combined with poorly contextualized learning materials and poorly qualified teachers or schools in poor condition with insufficient numbers of teachers, students often wind up dropping out-of-school.

Teacher Qualifications. In both provinces there remains a serious shortage of qualified teachers who are able to teach and manage classrooms effectively. In West Papua Provice, only 14.6% of those teaching in schools completed their university degree, with an even smaller proportion completing their teacher certification (7%) (Education Offices Papua and West Papua, 2011). While figures are higher at JSS level for teachers completing a university bachelor degree (37%), the number of certified teachers remained very low (14%). In Papua Province, provincial Education Office data for 2010 shows that there are a higher number of teachers who have completed a university degree (13% of teachers from primary school and 62% of teachers at junior secondary school level). Similarly, the numer of certified teachers at primary and junior secondary school levels is greater compared to West Papua (41% and 31%), but remains far below national targets. As a result, teachers often lack basic competencies to effectively manage classes and to facilitate student learning, with limited in-service support or monitoring provided by local and provincial governments.

Teacher Distribution. Although the number of certified teachers in Papua is higher than in West Papua, many teachers tend to be poorly distributed and/or disproportionately found in urban and/or easy-to-access lowland districts of Papua and West Papua. For example, Provincial Educatioion Office data for Papua and West Papua Provinces record some 21,162

teachers across primary and JSS levels (Education Offices Papua and West Papua, 2011). Their overall distribution across geographic regions, however, leads to an under-supply in remote areas, particularly the highlands, where only 24% of all teachers in Papua are stationed, compared to 54% in easy-to-access lowland districts (Education Offices Papua and West Papua, 2011). This is compared to a population in Papua Province of 37% highlands and 41% in easy-to-access lowlands. Moreover, within districts teachers and principals often tend to be absent from school, preferrinng to be in urban areas with better access to various facilities, resulting in rates of absenteeism in rural areas as high as 49% for teachers and 70% for principals (Education Offices Papua and West Papua, 2011).

Teacher distribution for early school years and JSS school levels demonstrates inequities for supporting children of differernt ages to overcome their learning challenges at different year levels. For both provinces the figures are roughly the same, with the proportion of teachers at kindergarten being 5% (Papua 4.5% and West Papua 6%), primary school being 56.3% (Papua 58%, West Papua 53%), JSS being 24% (Papua 25%, West Papua 24%), with the remaining 14% of teachers at Senior Secondary School level (Education Offices Papua and West Papua, 2011). Official government data from both provinces also only records 10 teachers for children of special needs/disabiities. Between the two provinces there are a total of 14,899 primary school teachers with 68% located in Papua and 32% located in West Papua Province.

Table 31. Distribution of Primary School Teachers by District Category, Papua Province

	PNS Teachers	Foundation Teachers	Honor Teacher		
	Total	Total	Total	Total	% of Total
Hard-to-access Lowlands				***3389***	***22%***
Asmat	427	-	150	577	
Boven Digoel	223	1	292	516	
Mambraya	64	32	78	174	
Mambtengah	58	-	42	100	
Mappi	265	2	180	447	
Mimika	587	184	283	1054	
Supiori	104	-	71	175	
Waropen	268	-	78	346	
Easy-to-access Lowlands				***8394***	***54%***
Biak Numfor	1122	13	220	1355	
Jayapura	827	22	184	1033	
Keerom	423	-	211	634	
Merauke	1095	23	581	1699	
Nabire	618	24	395	1037	
Sarmi	117	-	163	280	
Y.Waropen	673	13	220	906	
KotaJayapura	976	99	375	1450	
Highlands				***3714***	***24%***
Deiyai	150	-	114	264	
Dogiyai	95	4	183	282	
Intan Jaya	24	-	60	84	
Jayawijaya	593	16	257	866	
Lannyjaya	222	-	98	320	
Nduga	5	-	51	56	
Paniai	146	1	199	346	
Peg. Bintang	345	-	55	400	
Puncak	76	-	52	128	
Puncak Jaya	129	-	17	146	
Tolikara	144	-	212	356	
Yahukimo	349	-	59	408	
Yalimo	22	-	36	58	
Total	***10147***	***434***	***4916***	***15497***	

Table 32. Distribution of Primary School Teachers by District Category, West Papua

	PNS Teachers	Foundation Teachers	Honor Teacher		
	Total	Total	Total		
Hard-to-access Lowlands				***1729***	***31%***
Kaimana	350	1	73	424	
T.Wondama	146	4	13	163	
Teluk Bintuni	189	5	73	267	
Sorong sel	523	6	43	572	
Raja empat	293	1	9	303	
Tambrauw	na			0	
Maybrat	na			0	
Easy-to-access Lowlands				***3936***	***69%***
Fak-fak	827	7	69	903	
Manukwari	1038	8	214	1260	
sorong	717	3	86	806	
Kota sorong	669	55	243	967	
Total	***4752***	***90***	***823***	***5665***	***100%***

Source: Education Profile, Papua and West Papua, 2010/2011, Office of Education, Youth and Sport, Papua Prove and Education Office, West Papua Province

School Infrastructure. The Ministry of National Education and Culture (MONEC) reported in 2009 that at least 38% of classrooms in primary schools are in bad condition (Ministry of National Education, 2010). However, the quality of schools and facilities varies drastically between geographic regions in Papua and West Papua, which creates signficant inequities for children from disadvantaged regions. Some 31% of all primary schools in both provinces lack toilet facilities, with almost 62% of primary schools in highland districts without toilet facilities, some 41% of schools lack access to a clean water source, and almost 60% of all primary schools lack access to electricity (with some 85% schools in highland districts and 67% of schools in hard-to-access lowland districts lacking access to electricity). Poor school infrastructure reflects a common lack of access to such facilities among populations across Papua and West Papua, as reported by the 2010 National Census regarding access to wash facitilities (toilets, clean water), electricity, and ICT facilities such as the internet (over 92 across both provinces) (Badan Pusat Statistik, 2010).

Most schools lack libraries and other learning media to support student learning processes in schools. For example, 2010 provincial education data shows that the overall percentage of schools with libraries is some 33% in Papua Province and 18% in West Papua. At Junior Secondary School level, some 33% of primary schools in Papua and 50% of Junior Secondary Schools in West Papua were equipped with libraries. Similar shortcomings exist with science laboratoriums, with only some 8% of primary schools and 22% of Junior Secondary Schools were recorded as having such facilities.

ANNEX B: SUPPLEMENTAL DATA

Table 33. Distribution of teachers surveyed compared to government list

	Teachers Surveyed		Government List	
Easy-to-access lowlands	675	52%	12330	58%
Hard-to-access lowlands	432	33%	5118	24%
Highlands	189	15%	3714	18%
Total	1296	100%	21162	100%

Across the two provinces there are some 21,162 primary school teachers recorded in provincial government data, with 73% located in Papua Province and 27% located in West Papua Province. Based on official government data (see Annex A), the distribution of teachers across geographic categories is 58% in lowland easy-to-access districts, 24% in lowland hard-to-access districts, and 18% in the highlands. The distribution of the 1296 teachers surveyed for this study is 52% in lowland easy-to-access districts, 33% in lowland hard-to-access districts, and 15% in the highlands. No weighting of teacher data was applied across geographic categories because of the unreliability of official data regarding the distribution of teachers. Instead, research findings were used to verify the extent to which teachers are 'equally' distributed based on geographic charactistics such as population size.

Table 34. Absenteeism by school type and geographic strata

		State		Private Catholic		Private Protestant		Private Islam		Other		Total	
		n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Easy-to-access	Present	343	78,5	52	80	113	71,5	13	86,7	7	100	528	77,4
	Absent	94	**21,5**	**13**	**20**	**45**	**28,5**	**2**	**13,3**			154	**22,6**
	Total	437	100	65	100	158	100	15	100	7	100	682	100
Hard-to-access	Present	50	49,7	53	46,6	34	65,7	21	78,6	86	14,3	244	55,8
	Absent	81	**50,3**	**31**	**53,4**	**61**	**34,3**	**3**	**21,4**	**12**	**85,7**	188	**44,2**
	Total	131	100	84	100	95	100	24	100	98	100	432	100
Highlands	Present	70	59,8			26	37,1			1	50	97	51,3
	Absent	47	**40,2**			**44**	**62,9**			1	**50**	92	**48,7**
	Total	117	100			70	100			2	100	189	100

Table 35. Absenteeism by school type and sub-district category

		State		Private Catholic		Private Protestant		Private Islam		Other		Total	
		n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Urban	Present	149	84,2	43	89,6	70	67,3	19	79,2	7	100	288	80
	Absent	28	**15,8**	**5**	**10,4**	**34**	**32,7**	**5**	**20,8**			72	**20**
	Total	177	100	48	100	104	100	24	100	7	100	360	100
Semi-urban	Present	136	73,5	13	56,5	81	67,5			1	50	231	70
	Absent	49	**26,5**	**10**	**43,5**	**39**	**32,5**			1	**50**	99	**30**
	Total	185	100	23	100	120	100			2	100	330	100
Rural/isolated	Present	208	58,9	23	44,2	105	57,7	5	100	2	14,3	343	56,6
	Absent	145	**41,1**	**29**	**55,8**	**77**	**42,3**			12	**85,7**	263	**43,4**
	Total	353	100	52	100	182	100	5	100	14	100	606	100

Table 36. Absenteeism by school type and sub-district category

		State		Private Catholic		Private Protestant		Private Islam		Other		Total	
		n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Urban	Present	149	84,2	43	89,6	70	67,3	19	79,2	7	100	288	80
	Absent	28	**15,8**	**5**	**10,4**	**34**	**32,7**	**5**	**20,8**			72	**20**
	Total	177	100	48	100	104	100	24	100	7	100	360	100
Semi-urban	Present	136	73,5	13	56,5	81	67,5			1	50	231	70
	Absent	49	**26,5**	**10**	**43,5**	**39**	**32,5**			1	**50**	99	**30**
	Total	185	100	23	100	120	100			2	100	330	100
Rural/isolated	Present	208	58,9	23	44,2	105	57,7	5	100	2	14,3	343	56,6
	Absent	145	**41,1**	**29**	**55,8**	**77**	**42,3**			12	**85,7**	263	**43,4**
	Total	353	100	52	100	182	100	5	100	14	100	606	100

Table 37. Most important environmental reason teachers are absent - geographic categories

	Easy-to-access		Hard-to-access		Highlands		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Harvesting season, fishing, hunting, planting, sokok sagu	75	36,8	27	31,4	37	51,4	139	39%
Ritual (adat, Religion)	28	13,7	14	16,3	26	36,1	68	19%
Language problems	4	2	4	4,7	2	2,8	10	3%
Children don't want to be in school	31	15,2	5	5,8	3	4,2	39	11%
No parent support	29	14,2	5	5,8			34	9%
Children have to work	10	4,9	1	1,2			11	3%
Other	26	12,7	30	34,9	4	5,6	60	17%
	203	100	86	100	72	100	361	100%

	Urban		Semi-urban		Rural/isolated		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Harvesting season, fishing, hunting, planting, sokok sagu	21	23,6	33	33,7	85	48,6	139	39%
Ritual (adat, Religion)	19	21,3	20	20,4	29	16,6	68	19%
Language problems	1	1,1	2	2	7	4	10	3%
Children don't want to be in school	16	18	8	8,2	15	8,6	39	11%
No parent support	8	9	13	13,3	13	7,4	34	9%
Children have to work			3	3,1	8	4,6	11	3%
Other	24	27	18	18,4	18	10,3	60	17%
	89	100	97	100	175	100	361	100%

Table 38. Second most important environmental reason teachers are absent - geographic categories

	Easy-to-access		Hard-to-access		Highlands		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Harvesting season, fishing, hunting, planting, sokok sagu	21	13,9	3	6,4	9	14,1	33	13%
Ritual (adat, Religion)	21	13,9	11	23,4	31	48,4	63	24%
Language problems			7	14,9	5	7,8	12	5%
Children don't want to be in school	28	18,5	7	14,9	4	6,3	39	15%
No parent support	44	29,1	6	12,8	11	17,2	61	23%
Children have to work	24	15,9	7	14,9	3	4,7	34	13%
Other	13	8,6	6	12,8	1	1,6	20	8%
	151	100	47	100	64	100	262	100%

	Urban		Semi-urban		Rural/isolated		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Harvesting season, fishing, hunting, planting, sokok sagu	4	7,7	6	9,1	23	16	33	13%
Ritual (adat, Religion)	14	26,9	22	33,3	27	18,8	63	24%
Language problems	2	3,8	4	6,1	6	4,2	12	5%
Children don't want to be in school	10	19,2	9	13,6	20	13,9	39	15%
No parent support	10	19,2	12	18,2	39	27,1	61	23%
Children have to work	6	11,5	8	12,1	20	13,9	34	13%
Other	6	11,5	5	7,6	9	6,3	20	8%
	52	100	66	100	144	100	262	100%

Table 39. Most common local conflict (%) - school type

	State		Private Catholic		Private Protestant		Private Islam		Other		Total	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
School land ownership status	30	**41,1**	**5**	**62,5**	**15**	**35,7**			2	50	52	41%
Ethnic/tribal conflict	24	**32,9**			12	**28,6**					36	28%
Political conflict	7	9,6	3	**37,5**	**4**	9,5					14	11%
Criminality	4	**5,5**					1	**100**			5	4%
Low satisfaction with school services	2	2,7			1	2,4			1	25	4	3%
Teacher conflict with students/parents	6	8,2			7	**16,7**					13	10%
Other					3	7,1				25	3	2%
Total	73	100	8	100	42	100	1	100	3	100	127	100%

Table 40. Second most common local conflict (%) - school type

	State		Private Catholic		Private Protestant		Private Islam		Other		Total	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
School land ownership status	1	2			1	3,3					2	2%
Ethnic/tribal conflict	10	20,4	5	**100**	**6**	20			1	50	22	26%
Political conflict	21	**42,9**			8	**26,7**			1	50	30	35%
Criminality	4	8,2			3	10					7	8%
Low satisfaction with school services	7	**14,3**			3	10					10	12%
Teacher conflict with students/parents	3	6,1			7	**23,3**					10	12%
Other	3	6,1			2	6,7					5	6%
Total	49	100	5	100	30	100			2	100	86	100%

Table 41. When last attended training, district category

	Easy-to-access		Hard-to-access		Highlands		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Less than six months ago	156	27.4%	117	41.9%	28	23.7%	301	31.2%
6-12 months ago	77	13.5%	26	9.3%	19	16.1%	122	12.6%
1-3 years ago	107	18.8%	21	7.5%	12	10.2%	140	14.5%
3-5 years ago	39	6.9%	10	3.6%			49	5.1%
5-10 years ago	19	3.3%	6	2.2%	3	2.5%	28	2.9%
More than 10 years ago	6	1.1%	14	5.0%	1	.8%	21	2.2%
Never	133	23.4%	62	22.2%	48	40.7%	243	25.2%
Don't know	32	5.6%	23	8.2%	7	5.9%	62	6.4%
Total	569	100.0%	279	100.0%	118	100.0%	966	100.0%

Table 42. When last attended training, sub-district category

	Urban		Semi-urban		Rural/isolated		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Less than six months ago	108	34.2%	101	39.8%	92	23.2%	301	31.2%
6-12 months ago	47	14.9%	24	9.4%	51	12.9%	122	12.6%
1-3 years ago	50	15.8%	25	9.8%	65	16.4%	140	14.5%
3-5 years ago	24	7.6%	9	3.5%	16	4.0%	49	5.1%
5-10 years ago	24	4.4%	5	2.0%	9	2.3%	28	2.9%
More than 10 years ago	10	3.2%	9	3.5%	2	.5%	21	2.2%
Never	54	17.1%	64	25.2%	125	31.6%	243	25.2%
Don't know	9	2.8%	17	6.7%	36	9.1%	62	6.4%
Total	316	100.0%	254	100.0%	396	100.0%	966	100.0%

Teacher welfare

Table 43. Profile of teachers who have credit

	n/N	%
Sex		
Male	253/451	56.10%
Female	212/457	47.30%
Ethnicity		
Papua, origin	159/312	50.96%
Papua, not origin	133/205	64.88%
Non Papua	173/378	45.77%
Marital Status		
Single	15/96	15.63%
Married	435/779	55.84%
Divorce	12	50.00%
Widow/er (couple die)	8	75.00%
Latest Education		
SD-SMP	5/10	50.00%
SLTA/SMU/SMK	20/99	20.20%
SPG/KPG	155/265	58.49%
Diploma non teacher	2/9	22.22%
Diploma teacher	182/353	51.56%
University non education	8/19	42.11%
University education	91/140	65.00%

Gender preferences

Figure 96. Low quality by province (%)

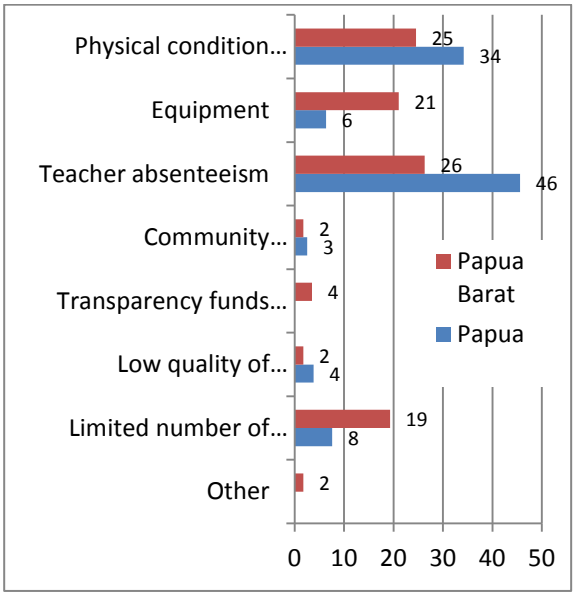


Figure 97. Quality by geographic strata (%)

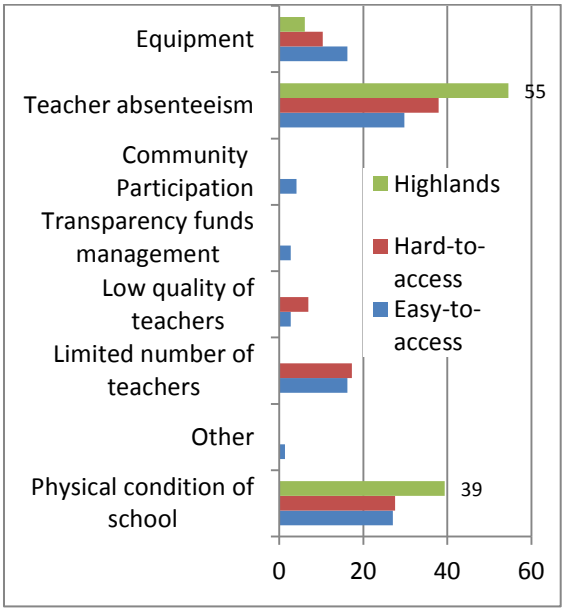


Figure 98. Quality by sub-district category (%)

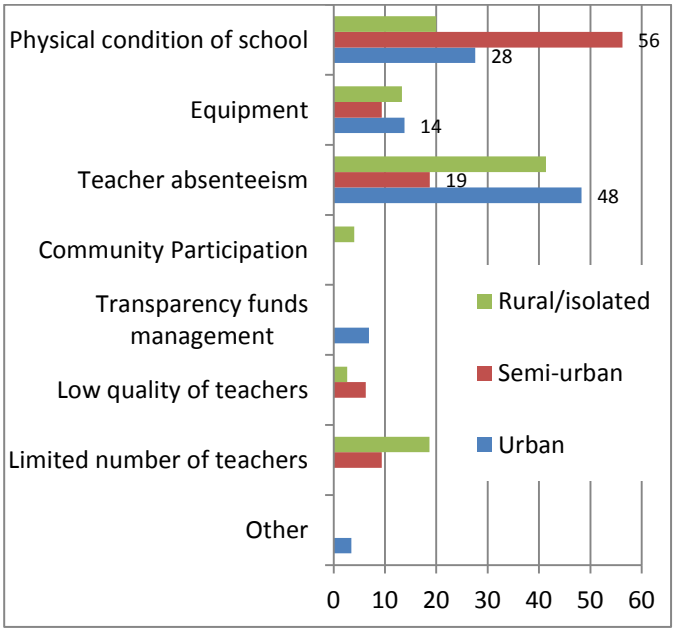


Figure 99. Gender preferences by geographic category

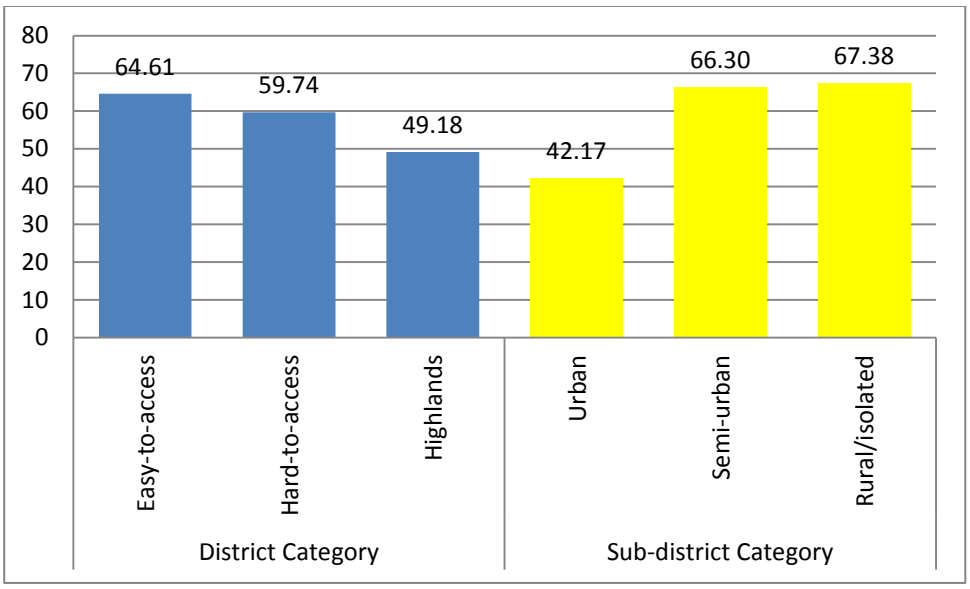
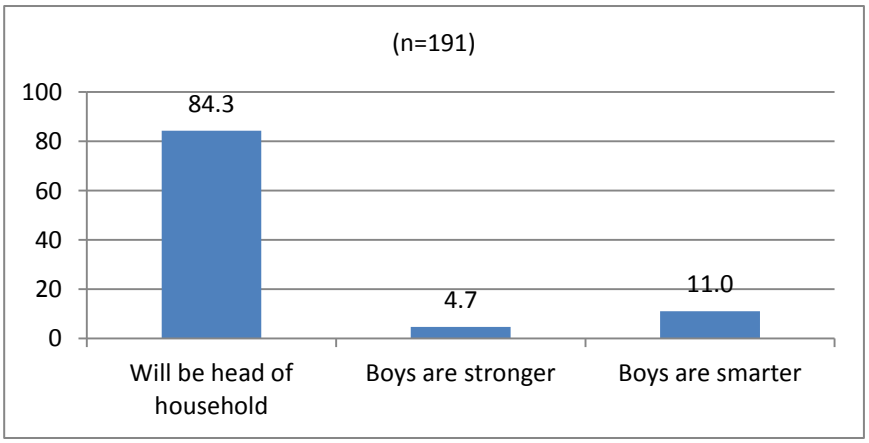


Figure 100. Reasons for preferring boys



Lostistic regression Analysis

Table 44. Correlates of teacher attendance in lowland easy-to-access districts (binary logistic regression)

Dependent variable = Attend: 1= Attend, 0=absent

	Model 1		Model 2		Model 3		Model 4	
	Coeff	Odd Ratio	Coeff	Odd Ratio	Coeff	Odd Ratio	Coeff	Odd Ratio
Principal attendance	0.984***	2.675					0.397	1.488
	(0.210)						(0.474)	
Can show attendance book	0.834***	2.303					0.552	1.737
	(0.219)						(0.503)	
Distance 100 meters from Road	0.817***	2.263					-0.769	0.464
	(0.243)						(0.866)	
Monitoring in the last six months	0.0939	1.098					-0.569	0.566
	(0.221)						(0.561)	
Have school committee	0.126	1.134					0.698	2.009
	(0.302)						(0.585)	
Male			-0.305	0.737			-0.0614	0.940
			(0.404)				(0.453)	
Indigenous Papuan			-1.333**	0.264			-0.932	0.394
			(0.443)				(0.484)	
Bachelor degree or higher			-0.359	0.698			-0.0187	0.981
			(0.474)				(0.529)	
Married			1.244	3.471			0.835	2.306
			(0.716)				(0.789)	
Employment status CPNS			-0.870	0.419			-1.112	0.329
			(1.378)				(1.487)	
Employment status PNS			-2.563**	0.077			-3.513***	0.030
			(0.853)				(1.045)	
Certified			-0.806	0.447			-1.286*	0.276
			(0.548)				(0.616)	
Training last month			0.444	1.559			0.163	1.177
			(0.445)				(0.479)	

Origin from this district		-0.00746	0.993			0.305	1.356
		(0.509)				(0.598)	
Family live in other location		0.266	1.305			0.467	1.596
		(0.487)				(0.532)	
Live in state provided house		1.238*	3.450			1.337*	3.807
		(0.596)				(0.647)	
Live in personal house		1.261**	3.530			1.510**	4.527
		(0.468)				(0.522)	
Live in same village as school		0.491	1.634			0.872	2.391
		(0.401)				(0.457)	
Participate in professional organization		1.077*	2.937			0.741	2.097
		(0.426)				(0.474)	
Participate in social organization		-2.405*	0.090			-2.350	0.095
		(1.120)				(1.233)	
Participate in community organization		0.865*	2.374			0.852*	2.344
		(0.399)				(0.430)	
Receive incentive		0.737	2.090			1.045	2.844
		(0.478)				(0.548)	
SBM Index				0.0223*	1.023	-0.00858	0.991
				(0.00965)		(0.0161)	
Infrastucture Index				0.00448	1.004	0.0229	1.023
				(0.00792)		(0.0157)	
Housing Index				0.0538***	1.055	0.0399**	1.041
				(0.00451)		(0.0147)	
_cons	-0.685*	1.553		-2.809***		-2.338	
	(0.333)	(1.064)		(0.483)		(1.779)	
N	651	472		654		451	

Standard errors in parentheses

="* p<0.05 ** p<0.01 *** p<0.001"

Table 45. Correlates of teacher attendance in lowland hard-to-access Districts (binary logistic regression)

Dependent variable = Attend: 1= Attend, 0=absent

	Model 1		Model 2		Model 3		Model 4	
	Coeff	Odd Ratio	Coeff	Odd Ratio	Coeff	Odd Ratio	Coeff	Odd Ratio
Principal attendance	0.779***	2.180					0.920	2.510
	(0.228)						(0.518)	
Can show attendance book	0.0717	1.074					1.551**	4.718
	(0.216)						(0.526)	
Distance 100 meters from road	0.939***	2.558					-1.297*	0.273
	(0.227)						(0.628)	
Monitoring in the last six months	0.210	1.233					-0.106	0.899
	(0.214)						(0.483)	
Have school committee	0.482	1.620					-1.068	0.344
	(0.262)						(0.813)	
Male			-0.944*	0.389			-0.735	0.480
			(0.427)				(0.497)	
Indigenous Papuan			-1.788**	0.167			-1.375*	0.253
			(0.571)				(0.665)	
Bachelor degree or higher			-0.0978	0.907			0.0997	1.105
			(0.552)				(0.620)	
Married			-0.743	0.476			-1.028	0.358
			(1.187)				(1.521)	
Employment Status CPNS			-3.523***	0.029			-3.853**	0.021
			(1.015)				(1.227)	
Employment Status PNS			-1.670	0.188			-1.493	0.225
			(0.875)				(0.996)	
Certified			0.0466	1.048			0.112	1.118
			(0.791)				(0.932)	
Training Last Month			-1.499***	0.223			-1.586**	0.205
			(0.413)				(0.508)	
Origin from this district			0.657	1.930			1.138*	3.122

		(0.454)				(0.570)	
Family live in other location		0.177	1.193			0.148	1.159
		(0.449)				(0.559)	
Live in state provided house		-0.440	0.644			-0.975	0.377
		(0.731)				(0.877)	
Live in personal house		-1.099	0.333			-1.857*	0.156
		(0.672)				(0.817)	
Live in same village as school		0.373	1.452			0.595	1.813
		(0.441)				(0.526)	
Participate in professional organization		0.490	1.632			0.357	1.429
		(0.414)				(0.488)	
Participate in Social Organization		-1.257	0.285			-1.019	0.361
		(1.055)				(1.174)	
Participate in community organization		0.827*	2.286			0.863	2.369
		(0.407)				(0.483)	
Receive incentive		0.138	1.148			0.182	1.199
		(0.658)				(0.908)	
SBM Index				0.0114	1.011	0.0322	1.033
				(0.00729)		(0.0189)	
Infrastucture Index				0.00864	1.009	0.0368*	1.037
				(0.00755)		(0.0172)	
Housing Index				0.0408***	1.042	0.0143	1.014
				(0.00427)		(0.0127)	
_cons	-0.998***	5.797***		-1.953***		3.264	
	(0.275)	(1.556)		(0.424)		(2.085)	
N	411	226		412		214	

Standard errors in parentheses

="* p<0.05 ** p<0.01 *** p<0.001"

Table 47. Correlates of teacher attendance in highland districts (binary logistic regression)

Dependent variable = Attend: 1= Attend, 0=absent

	Model 1		Model 2		Model 3		Model 4	
	Coeff	Odd Ratio	Coeff	Odd Ratio	Coeff	Odd Ratio	Coeff	Odd Ratio
Principal attendance	1.853***	6.381					6.149**	468.024
	(0.467)						(1.941)	
Can show attendance book	-0.688	0.503					0.659	1.933
	(0.586)						(2.358)	
Distance 100 meters from road	0.153	1.165					-0.806	0.447
	(0.509)						(1.689)	
Monitoring in the last six months	1.485**	4.414					1.406	4.078
	(0.551)						(1.829)	
Have school committee	-0.266	0.766					-1.731	0.177
	(0.441)						(1.712)	
Male			-0.354	0.702			2.127	8.391
			(1.284)				(1.704)	
Indigenous Papuan			-0.320	0.726			-0.193	0.825
			(2.548)				(3.526)	
Bachelor degree or higher			1.813	6.130			-0.0723	0.930
			(1.630)				(2.552)	
Married			2.362*	10.608			4.880*	131.678
			(1.143)				(2.425)	
Employment status CPNS			-3.301	0.037			-3.308	0.037
			(1.842)				(2.340)	
Employment status PNS			-0.457	0.633			-3.761*	0.023
			(0.731)				(1.571)	
Certified			0.640	1.896			4.264*	71.085
			(0.642)				(1.780)	
Training last month			-0.147	0.864			0.840	2.316
			(0.720)				(1.322)	
Origin from this district			-0.424	0.654			-1.495	0.224
			(0.735)				(1.150)	
Family live in other location			0.736	2.087			-0.377	0.686

		(0.674)				(1.271)	
Live in state provided house		-0.842	0.431			-4.420	0.012
		(1.379)				(2.755)	
Live in personal house		-1.004	0.366			-4.155	0.016
		(1.370)				(2.473)	
Live in same village as school		1.312*	3.715			2.754*	15.710
		(0.658)				(1.083)	
Participate in professional organization		-0.816	0.442			-0.0103	0.990
		(0.655)				(1.165)	
Participate in Social Organization		0.0666	1.069				
		(1.354)					
Participate in community organization		1.670*	5.314			0.809	2.246
		(0.707)				(1.349)	
Receive incentive		1.018	2.769			2.801*	16.460
		(0.787)				(1.271)	
SBM Index				0.0129	1.013	-0.137**	0.872
				(0.00980)		(0.0523)	
Infrastucture Index				-0.0189*	0.981	0.00851	1.009
				(0.00932)		(0.0244)	
Housing Index				0.0508***	1.052	0.0871*	1.091
				(0.00841)		(0.0357)	
_cons	-0.666**	-1.627		-0.876		-4.997	
	(0.237)	(2.857)		(0.599)		(4.350)	
N	178	106		181		91	

Standard errors in parentheses
="* p<0.05 ** p<0.01 *** p<0.001"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