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The Effectiveness of Private Versus Public Schools in Indonesia: Comment

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Abstract

I reestimate Bedi and Garg estimation of differential earnings of public-private junior secondary school in Indonesia. I replicate Bedi and Garg method by using Bedi and Garg's sample data and creating a new sample data base on the original updated IFLS1 data (Indonesia Family Life Survey 1 codename IFLS1-RR). I use the same methodology as Bedi and Garg with the latest Stata command to confirm Bedi and Garg's major conclusion. Using selmlog and decompose Stata techniques, I find the evidence that contradictive with Bedi and Garg's conclusion as the public schools graduated earn higher than other graduates from private schools.

JEL classification: J31
Keywords: School effectiveness; Earnings; Indonesia

1. Is Private Schools More Effective Than Public School in Indonesia?

In their paper, titled The Effectiveness of Private Versus Public Schools: Case of Indonesia, Bedi and Garg (2000, p. 18-19) find that people who graduated from non-religious school and private Christian school has 75% and 46% earnings advantages compare to people form public school. Despite private non-religious school graduates generally has lower academic qualifications, Bedi and Garg conclude that the private non-religious is more effective than public school. This finding also confirms Hannaway's (1991) argument "that private schools perform better due to better due to greater school level autonomy and their responsiveness to the needs of students and parents." By this finding, Bedi and Garg suggest a policy implication

to encourage a greater private sector role in Indonesian education the private school has a cheaper and more effective way to delivery education.

Aside Bedi and Garg, at least there are two papers that investigate the effectiveness of private-public school in Indonesian context. James et al. (1996) that use the school-level data on revenues, expenditures, enrolments, examination scores and student characteristics find management in private elementary school in Indonesia is more efficient than public in achieving academic quality. Private funding also improves efficiency whether the schools are publicly or privately managed. On the other hand, contrary with Bedi and Garg (2000) and James et al. (1996), Newhouse and Beegle (2006) find that Indonesian public junior secondary schools are more effective than private schools in term of cognitive skill as measured by students' national test score (EBTANAS) upon completion of junior secondary school. Furthermore, Newhouse and Beegle criticize Bedi and Garg's conclusion that private non religious junior secondary schools provide a more effective education than public schools. They argue that Bedi and Garg should include an adult's province birth to the earnings equation. Instead, Newhouse and Beegle believe that the province birth is correlated other unobserved factors determining earnings, such as personal connections and human-capital accumulation not attributable to school type. Newhouse and Beegle also doubt that the positive effect of private school management could have to outweigh the superiority of public schools' input quality peer effects. As noted in Bedi and Garg and Newhouse and Beegle public schools in Indonesia have better inputs and are widely perceived to be superior to non-religious and Islamic private schools. Public schools also benefit advantages of high-scoring peer effect as entry to some junior secondary public schools in urban area is based on national score test in elementary school.

In this paper I reestimate Bedi and Garg estimation of differential earnings of public-private junior secondary school in Indonesia. I replicate Bedi and Garg method by using Bedi and Garg's sample data and creating a new sample data base on the original updated IFLS1 data (Indonesia Family Life Survey 1 codename IFLS1-RR). I use the same methodology as Bedi and Garg with the latest Stata command to confirm Bedi and Garg's major conclusion.

2. Indonesia Family Life Survey and Sample Data

The first step to replicate Bedi and Garg (2000) is to build the precisely same data set as Bedi and Garg's. Bedi and Garg use Indonesia Family Life Survey (IFLS) 1993 to estimate the effectiveness of private and public schools in Indonesia. The IFLS1 is a large-scale longitudinal observation of individual and household level on socioeconomic and health survey. The IFLS1 sampling scheme was formed on provinces, then randomly selected the samples within provinces. Due to the cost-effectiveness reason the survey had taken only 13 out of 26 provinces on the Island of Java, Sumatra, Bali, West Nusa Tenggara, Kalimantan, and Sulawesi. They were selected as it approximately represents the 83 percents of Indonesian population. RAND, as the major producer of IFLS has been publicly published the third wave of IFLS, so called IFLS3. According to RAND website, the public use files and documentation of IFLS4 should be ready by early spring 2009. However, Bedi and Garg only use IFLS1 as I assume that the paper was conducted when the IFLS3 has not been publicly released. I also aware that Bedi and Garg do not use IFLS2 (1997) data set as the employment data [1] in IFLS2 have not been publicly published until now.

I create the sample data based on Bedi and Garg's guidance in page 467-468. The initial data set consist of data of respondents who have earnings and are no longer students. The other restrictions are included excluding of respondents whose education less than 7 and more than 12 years. After several attempts and merge all necessary files, I fail to match Bedi and Garg's data set. My initial data consists of 7236 respondents as the size is almost twice of Bedi and Garg's which has 4900. Missing and miscoded data and also sample restrictions reduce the data set by 6143 (almost 85 percent) to 1093 observations. Most of the observations, 5458, are dropped as they had not proceeded beyond primary school, while 274 observations drop since they have more than 12 years education. Moreover, I drop 14 respondents due to missing information on the school type. The other 9 observations[2] are dropped as they seemed has

[1] The employment data is located in b3atk1-4 files.

[2] Three observations have 999997 on primary job wage. The other two observations are drop since they have either 999997 or 999998 secondary job wage. At last, four observations are dropped as they have 99997 and

the implausibly high income per hours as it suggested by Bedi and Garg in footnote 5 that the information that consists of unusual very high wage is miscoded. Some of the observations also are dropped due to missing information on class size (42 observations), information whether failed a grade at primary education (1), miscoded in period of school (47), missing information on failed in primary school (1), missing information on parents' education (298). Table 1 presents the full comparison of the exclusion process.

Table 1: Comparison of Exclusion Process

Item	**Bedi and Grag (2000)**	**Fahmi***
Initial income information	4900	7236
Had not proceeded beyond primary education	3391	5458
Had more than 12 years of education	291	274
Lack of information on hours of work	33	0
Missing information on school type	10	14
Reported incomes seemed implausibly high	3	9
Missing information on class size	-	42
Attend(ed) school more than 12 month (miscoded)	-	47
Missing information on failed in primary school	-	1
Missing information on father's education	-	216
Missing information on mother's education	-	82
Remaining Observation Number	1194	1093

*)The Exclusion steps follows Bedi and Grag (2000). The result of data exclusion could be changed if the different steps applied.

In correspondence with Bedi, it is revealed that Bedi and Garg used the IFLS1 issued by

99998 in their primary self-employed income.

Rand in 1996 and it is called DRU-1195-CD. On the other hand, I use the downloadable IFLS1 data set called IFLS1-RR (re-release) that updates the original IFLS1. RAND publishes the IFLS1-RR to facilitate linking to IFLS2 and to improve the ease of use. The dissimilarity version of IFLS1's DRU-1195-CD and IFLS1-RR could be the major reason why there is a difference between my data set and Bedi and Garg's. Despite I have some information from the paper and do several correspondences with Bedi, detail information about data set and variables construction still insufficient. Bedi kindly send the data set (PUBPRIV.DTA) as the data file is created at 7 February 1998 and consisted of 1527 observations and 231 variables. However without the do-file, a text file containing a list of Stata commands, I still could not match Bedi and Garg's data set. Using Bedi's data set, I could match the summary statistics of Bedi and Garg as mean and standard deviation are almost perfectly similar. On the other hand, most of mean and standard deviation of the variables in my data set are slightly different with Bedi and Garg's. I present the complete comparison of summary statistics of original Bedi and Garg data set, recalculated of Bedi and Garg's data set, and my data set from IFLS1-RR in appendix table 4.

3. Selectivity Variable and Earnings Differentials

Bedi and Garg use the Blinder-Oaxaca decomposition to estimate earning differential between public and private school graduates. The Blinder-Oaxaca decomposition in this case explains the log earnings gap into three parts: (i) that due to differences in selectivity bias, (ii) that due to differences in average characteristics of the groups that attending a particular school type and (iii) that due to differences in the parameters of the earnings function Reimers (1983). Bedi and Garg use Cotton's decomposition technique where the diagonal of D (matrix of weights) equals 0.5 as they try to avoid the inconsistency in decomposition result.

Since I want to compare Bedi and Garg's decomposition result as closed as possible, I adopt all Bedi and Garg methodology to estimate earnings differential. I use data set from IFLS1-RR

as well as Bedi and Garg's data set to recalculate the decomposition. The dependant variables are included family background, control variable for ability, and dummy variables for province of the school which was attended by respondents.

I use Ben Jann's Stata routine `decompose` which allow estimating the decomposition of earnings differentials in one command. According to Jann (2004): "`decompose` computes several decompositions of the outcome variable difference. The decompositions show how much of the gap is due to differing endowments between the two groups, and how much is due to discrimination. Usually this is applied to earnings differentials using Mincer type earnings equations" (Jann, 2004).

I presents the result of Blinder-Oaxaca decomposition of OLS estimation in table 2. The result of Bedi and Garg and my estimation using Bedi and Garg sample data are quite similar. Despite there are some differences in third decimal values, the results could be considered as indifference. These results suggest that the calculation of Bedi and Garg's technique and my technique, using Jann's `decompose`, produce similar outputs.

Table 2: Observed Earnings Differentials Between Public and Private Schools (OLS Estimation)

Type of School	**BG sample and BG calculation**			**BG sample and Fahmi calculation**			**Fahmi sample and Calculation**		
	1	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**
Private Non Religious	0.316	0.162	0.154	0.318	0.163	0.155	0.185	0.101	0.084
Private Islam	0.311	0.254	0.057	0.309	0.254	0.055	0.202	0.083	0.120
Private Christian	-0.140	-0.204	0.064	-0.142	-0.205	0.064	0.067	-0.215	0.281

Note:
BG = Bedi and Garg (2000)
1. Offered earnings differential
2. Differentials due to differences in means
3. Differentials due to differences in parameters

The Blinder-Oaxaca decomposition of OLS estimation on table 3 might lead to misleading results as possiblity of selection bias. The assumptions of the OLS model could lead to biased

estimates of the achievement effect as the unrandom subsamples of the student population Jimenez et al. (1988).

Bedi and Garg use multinomial logit and selectivity corrected equation to overcome selectivity bias problem. Bedi and Garg begin the analysis by estimate the school sorting model as they argue that in Indonesia, the junior secondary school sorting as a result of parental choice and selection criteria that in some case may implement by the school. In making the decision, Bedi and Garg assume that parents evaluate the benefits of attending each particular school and they faced four available school types, public, private non-religious, private Islamic and private Christian schools. The school sorting that based on selection criteria most likely true for public secondary school as they require a certain level of final test score or NEM (Nilai Ebtanas Murni).

Bedi and Garg also suggest that school sorting may not be exogenous and the student who has higher ability may be more likely to enter public secondary schools. Bedi and Garg use a multinomial logit model, instead of OLS, to predict multiple school choice. The dependant variables of the model are included family background, control variable for ability, and dummy variables for province of the school which was attended by respondents. As shown in Lee (1983), Bedi and Garg argue that a multinomial logit creates consistent earnings estimation rather than OLS model.

The multinomial logit estimation creates a sample sample selection coefficient coefficient, or λ. The sample selection coefficient measures the effect of non-random sorting individual, while either the positive or negative sign indicates the nature of selection. The negative coefficient indicates that unobserved variables that influence school choice are negatively correlated with unobserved variables that determine earnings. Bedi and Garg compare the results of OLS decomposition and two step decomposition to show the correction selection correction coefficient to overcome the selection bias.

To correct for sample selection bias, I use the two-step method proposed by Bourguignon et al. (2007). Bourguignon et al. (2007) create `selmlog` as a set of method in Stata on

Table 3: The Comparison of Selectivity Variable, λ

School Type	**BG sample BG calculation**		**BG sample Fahmi calculation**		**Fahmi sample Fahmi calculation**	
Public	-0.089	(-0.31)	0.104	(-0.35)	-0.191	(-0.53)
Private NR	-0.848*	(-2.384)	0.876	(1.92)	0.701	(1.15)
Private IS	0.073	(0.120)	0.358	(0.45)	1.506	(1.28)
Private CH	0.031	(0.272)	-0.676	(-1.79)	0.818	(0.88)

Note:
- T-statistics standard errors are in parenthesis and heteroscedasticity consistent
- BG = Bedi and Garg (2000)
- * = p<0.05, ** = p<0.01, *** = p<0.001

selection bias correction, when selection is specified as a multinomial logit (Bourguignon et al., 2007). In additioon, I use Lee's method in `selmlog` option as it is suggested by Bedi and Garg. Bedi and Garg adopt Lee (1983) method in sequential estimation procedure to create consistent earnings equation. I present the results of selection-corrected earnings in appendix (table 5-8).

Using Bedi and Garg sample data, I find that λ in three earning selected corrected estimation have different sign with Bedi and Garg's result. Types of school group that have reverse sign are public, private non-religious (private NR), and private Christian (private CH). The λ of Bedi and Garg in public school is -0.089, while in my result is 0.104. In private NR and private CH, Bedi and Garg's λ are -0.848 and 0.031, while mine are 0.876 and -0.676. In private Islam (private IS) estimation the Bedi and Garg's λ sign same as mine even though the value are different. Bedi and Garg's λ is 0.073 while mine is 0.358.

In Bedi and Garg's result, only one λ is significant, as in private NR schools. Bedi and Garg use this finding to support their argument that the strong negative selection effect prevailing in private non-religious schools drive the reversal of the public and private non-religious school advantage. However, I find a contradictive result as all λ are not significant. These

evidence, insignificant selectivity bias coefficients suggest that ordinary least squares (OLS) estimates would be unbiased, as would an earnings differential decomposition based on OLS results (Reimers, 1983). The statistical insignificant of the selectivity effects may partly due the inclusion of most of the variables from the first-step equations (Kingdon, 1996).

As a result of insignificant all selectivity bias coefficients, I use the OLS estimation to calulate the earnings decompositions. The observed earnings in private non religious schools, private Islam, and private Christian groups are 0.318, 0.309, -0.142. These results indicate that people who graduate from public school has higher earnings than people who graduate from private non religious and private Islam school. While the private Christian graduate has earn 14.2 percents more than public school graduates. These evidence also suggest that the private non religious school group can not increase the probability of its input who has lower academic achievement to have higher earnings.

Using my sample data, I find that only one estimation has a negative sign of λ, as in public schools estimation. The λ in public school estimation is -0.191, while private NR, private IS, and private CH are 0.701, 1.506, and 0.818. All of λ are insignificant as it suggest that OLS estimations are unbiased.

The observed earnisng decomposition for private NR is 0.185 as it suggests that average public school graduates earn 18.5% higher than private non religious school graduates. Moreover, public school graduates also earn 20.2% and 6.7% higher than private Islam and private Christian schools graduates.

4. Conclusion

Using Bedi and Garg's sample data, new sampel data, selmlog and decompose techniques, I find the contradictive result with Bedi and Garg (2000). My result contradicts the finding of Bedi and Garg (2000), which find statistically significant negative selection coeeficient in private non religious school. The unsignificant selection bias coefficients suggest that the OLS

estimation is unbias. The results of earnings decompostion from OLS estimation, suggest that people who graduate from public school earn higher than graduates from private non-religious and private Islam school. Using Bedi and Garg's sample I find that private Christian school graduates earn higher than prublic school graduates. While using my sample data, I find a contradictive results as the public school graduates earn higher than private Christian school graduates.

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5. Appendix

Table 4: Comparison of Descriptive Statistics

Variable	BG		Fahmi on BG		Fahmi	
	mean	**std.dev**	**mean**	**std.dev**	**mean**	**std.dev**
LOGHRWG	-0.202	1.079	-0.203	1.080	-0.321	1.075
HRWG	1.492	2.567	1.493	2.567	2.128	18.234
AGE	34.66	7.502	34.66	7.502	34.308	7.336
JUNIOR	0.307	0.462	0.307	0.462	0.254	0.436
SENIOR	0.521	0.499	0.522	0.500	0.575	0.495
SEX	0.672	0.469	0.673	0.469	0.691	0.462
INDLANG	0.404	0.491	0.405	0.491	0.374	0.484
CHRIST	0.091	0.289	0.091	0.288	0.092	0.290
HINBUD	0.066	0.248	0.066	0.249	0.075	0.264
PRIFAIL	0.204	0.403	0.204	0.403	0.208	0.406
SCHOLAR	0.048	0.215	0.049	0.215	0.038	0.192
FATHPRI	0.422	0.494	0.422	0.494	0.521	0.500
FATHJH	0.101	0.302	0.101	0.302	0.113	0.317
FATHSH	0.085	0.279	0.085	0.278	0.074	0.262
MOTHPRI	0.380	0.485	0.380	0.486	0.468	0.499
MOTHSEC	0.109	0.312	0.110	0.313	0.096	0.295
DIRTFLR	0.067	0.251	0.068	0.252	0.042	0.201
CLASSIZ	36.47	9.301	36.475	9.301	36.675	9.062
MONTHS	9.459	1.849	9.460	1.850	9.641	1.711
OUTPR	0.023	0.148	0.023	0.149	0.021	0.144

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Table 4 – Continued

Variable	BG		Fahmi on BG		Fahmi	
	mean	std.dev	mean	std.dev	mean	std.dev
SKALIED	0.043	0.204	0.044	0.204	0.038	0.190
NSUMAED	0.106	0.308	0.106	0.308	0.100	0.300
WSUMAED	0.068	0.253	0.069	0.253	0.048	0.215
SSUMAED	0.051	0.220	0.051	0.220	0.052	0.222
LAMPED	0.023	0.151	0.023	0.151	0.027	0.161
EJAVAED	0.120	0.325	0.121	0.326	0.134	0.340
WJAVAED	0.139	0.346	0.139	0.346	0.130	0.336
CJAVAED	0.141	0.348	0.142	0.349	0.151	0.358
BALIED	0.048	0.215	0.049	0.215	0.059	0.237
NTBED	0.042	0.200	0.042	0.200	0.054	0.226
YOGYAED	0.067	0.251	0.068	0.252	0.063	0.243
SSULAED	0.042	0.202	0.043	0.202	0.039	0.194
JAKARED	0.079	0.270	0.080	0.271	0.067	0.250
URBAN	0.708	0.455	0.708	0.455	0.676	0.468
SKALMNT	0.043	0.204	0.044	0.204	0.051	0.221
NSUMATRA	0.098	0.297	0.098	0.297	0.088	0.283
WSUMATRA	0.066	0.250	0.067	0.250	0.047	0.211
SSUMATRA	0.053	0.225	0.054	0.225	0.058	0.233
WJAVA	0.103	0.304	0.132	0.339	0.124	0.329
CJAVA	0.131	0.338	0.089	0.285	0.093	0.291
EJAVA	0.088	0.284	0.103	0.304	0.118	0.323
BALI	0.054	0.226	0.054	0.227	0.069	0.253

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Table 4 – Continued

Variable	BG		Fahmi on BG		Fahmi	
	mean	**std.dev**	**mean**	**std.dev**	**mean**	**std.dev**
NTB	0.042	0.202	0.043	0.202	0.056	0.230
LAMPUNG	0.029	0.168	0.029	0.169	0.033	0.179
YOGKARTA	0.067	0.251	0.068	0.252	0.063	0.243
SSULAWES	0.042	0.202	0.043	0.202	0.041	0.199
JAKARTA	0.176	0.381	0.177	0.382	0.159	0.366
N	1194		1194		1093	

Table 5: Variable Description

Variable	Description
LOGEARN	Log hourly earnings
EARN	Hourly earnings in thousands of rupiahs
AGE	Age in years
JUNIOR	Completed junior secondary education
SENIOR	Completed senior secondary education
SEX	Male
BAHASA	Indonesian language spoken at home
CHRIST	Religion Hindu or Buddhist
HINBUD	Religion Christian

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Table 5 – Continued

Variable	Description
PRIFAIL	Failed a primary school grade
SCHOLAR	Received scholarship at secondary school
FATHPRI	Father has primary education
FATHJH	Father has junior secondary education
FATHSH	Father has senior secondary education
MOTHPRI	Mother has primary education
MOTHSEC	Mother has secondary education
DIRTFLR	School has dirt floorsa
CLASSIZ	Number of students in class a
MONTHS	Length of school terma
OUTPR	Educated in other provincesb
SKALIED	Educated in South Kalimantan
NSUMAED	Educated in North Sumatra
WSUMAED	Educated in West Sumatra
SSUMAED	Educated in South Sumatra
LAMPED	Educated in Lampung
EJAVAED	Educated in East Java
WJAVAED	Educated in West Java
CJAVAED	Educated in Central Java
BALIED	Educated in Bali
NTBED	Educated in Nusa Tenggarra Barat
YOGYAED	Educated in Yogyakarta
SSULAED	Educated in South Sulawesi

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Table 5 – Continued

Variable	**Description**
JAKARED	Educated in Jakarta
URBAN	Resides in an urban area
SKALMNT	Resides in South Kalimantan
NSUMATRA	Resides in North Sumatra
WSUMATRA	Resides in West Sumatra
SSUMATRA	Resides in South Sumatra
WJAVA	Resides in East Java
CJAVA	Resides in West Java
EJAVA	Resides in Central Java
BALI	Resides in Bali
NTB	Resides in Nusa Tengarra Barat
LAMPUNG	Resides in Lampung
YOGKARTA	Resides in Yogyakarta
SSULAWES	Resides in South Sulawesi
JAKARTA	Resides in Jakarta

Table 6: Selection-corrected earnings equations of Public Schools

Dependent Variables	**BG sample BG calculation**		**BG sample Fahmi calculation**		**Fahmi sample Fahmi calculation**	
Constant	-2.176	(-2.86)	-2.171**	(-2.96)	-3.069***	(-3.44)
Junior	0.007	(0.05)	0.007	(0.06)	0.086	(0.66)
Senior	0.499	(4.21)	0.499***	(4.7)	0.491***	(4.22)
Age	0.077	(1.81)	0.077*	(1.99)	0.095*	(2.00)
Age squared	-0.001	(-1.29)	-0.001	(-1.41)	-0.001	(-1.37)
Male	0.209	(2.50)	0.209**	-2.65	0.258**	(2.95)
Bahasa	0.261	(3.06)	0.262**	-3.03	0.236*	(2.49)
Hinbud	0.530	(1.84)	0.544	(1.2)	-0.004	(-0.01)
Christ	-0.061	(-0.45)	-0.061	(-0.42)	-0.286	(-1.92)
Scholar	0.398	(3.98)	0.398**	(2.87)	0.331	(1.81)
Prifail	-0.137	(-1.57)	-0.135	(-1.50)	-0.248**	(-2.65)
Fathpri	0.092	(0.91)	0.095	(-0.97)	-0.145	(-1.39)
Fathjh	0.166	(1.21)	0.174	(1.3)	-0.082	(-0.58)
Fathsh	0.307	(2.15)	0.311*	(2.13)	0.200	(1.20)
Mothpri	-0.002	(-0.02)	-0.000	(-0.00)	0.094	(0.91)
Mothsec	0.061	(0.50)	0.057	(0.42)	-0.021	(-0.14)
Dirt floor	-0.264	(-1.36)	-0.265	(-1.72)	0.204	(0.86)
Clas size	-0.003	(-0.72)	-0.003	(-0.71)	-0.003	(-0.63)
Months	0.004	(0.22)	0.004	(-0.23)	0.033	(1.47)
λ	-0.089	(-0.31)	0.104	(-0.35)	-0.191	(-0.53)
N	767		767		681	
Adj. R^2	0.228		0.228		0.1869	

Note:
- Other variables in the model were urban and dummies for province of residence.
- T-statistics standard errors are heteroscedasticity consistent
- BG = Bedi and Garg (2000)
- * = p<0.05, ** = p<0.01, *** = p<0.001

Table 7: Selection-corrected earnings equations of Private Non Religious Schools

Dependent Variables	**BG sample BG calculation**		**BG sample Fahmi calculation**		**Fahmi sample Fahmi calculation**	
Constant	-2.527	(-1.928)	-2.386	(-1.69)	-1.573	(-0.87)
Junior	0.061	(0.298)	0.071	(0.37)	0.264	(1.17)
Senior	0.301	(1.630)	0.310	(1.65)	0.446*	(2.15)
Age	0.122	(1.491)	0.121	(1.63)	0.075	(0.89)
Age squared	-0.001	(-1.181)	-0.001	(-1.28)	-0.001	(-0.47)
Male	0.629	(3.894)	0.615***	(3.95)	0.193	(1.16)
Bahasa	0.069	(0.322)	0.011	(0.06)	0.012	(0.07)
Hinbud	-0.377	(-1.203)	-0.284	(-0.87)	-0.261	(-0.59)
Christ	0.212	(0.977)	0.286	(1.04)	0.089	(0.3)
Scholar	0.171	(0.547)	0.162	(0.29)	0.475	(1.13)
Prifail	-0.180	(-1.150)	-0.202	(-1.10)	-0.297	(-1.69)
Fathpri	0.071	(0.404)	0.040	(0.23)	-0.005	(-0.03)
Fathjh	0.195	(0.672)	0.148	(0.51)	-0.126	(-0.45)
Fathsh	0.192	(0.584)	0.148	(0.47	-0.709*	(-2.05)
Mothpri	0.085	(0.452)	0.084	(0.5)	0.122	(0.66)
Mothsec	0.436	(1.481)	0.464	(1.64)	0.466	(1.27)
Dirt floor	-0.503	(-2.327)	-0.515*	(-2.04)	-0.711*	(-2.31)
Clas size	0.004	(0.509)	0.004	(0.46)	-0.003	(-0.38)
Months	0.018	(0.493)	0.017	(0.48)	0.043	(0.86)
λ	-0.848*	(-2.384)	0.876	(1.92)	0.701	(1.15)
N	221		221		219	
Adj. R^2	0.293		0.292		0.218	

Note:
- Other variables in the model were urban and dummies for province of residence.
- T-statistics standard errors are heteroscedasticity consistent
- BG = Bedi and Garg (2000)
- * = p<0.05, ** = p<0.01, *** = p<0.001

Table 8: Selection-corrected earnings equations of Private Islam Schools

Dependent Variables	**BG sample BG calculation**		**BG sample Fahmi calculation**		**Fahmi sample Fahmi calculation**	
Constant	-1.364	(-0.654)	-0.766	(-0.34)	2.688	(0.99)
Junior	0.604	(2.108)	0.614*	(2.11)	1.045***	(3.51)
Senior	0.887	(3.356)	0.878**	(3.00)	1.158***	(4.35)
Age	0.041	(0.393)	0.042	(0.39)	-0.158	(-1.32)
Age squared	-0.000	(-0.063)	-0.000	(-0.07)	0.003	(1.80)
Male	0.036	(0.160)	0.037	(0.15)	-0.074	(-0.31)
Bahasa	0.578	(1.565)	0.652	(1.61)	0.418	(1.30)
Hinbud	-	-	-	-	-	-
Christ	-0.774	(-0.733)	-0.215	(-0.13)	0.78	(0.46)
Scholar	-1.392	(-2.883)	-1.519	(-1.77)	0.409	(0.76)
Prifail	-0.181	(-0.771)	-0.144	(-0.52)	-0.327	(-1.15)
Fathpri	0.375	(1.275)	0.351	(1.28)	0.368	(1.39)
Fathjh	0.978	(1.953)	0.926*	(2.07)	1.087	(1.98)
Fathsh	0.630	(0.852)	0.767	(1.19)	1.271*	(2.44)
Mothpri	-0.197	(-0.669)	-0.104	(-0.33)	-0.283	(-0.96)
Mothsec	-0.631	(-1.504)	-0.507	(-0.99)	-0.838	(-1.42)
Dirt floor	0.183	(0.561)	0.171	(0.55)	0.001	(0.00)
Clas size	-0.018	(-2.216)	-0.020*	(-2.20)	-0.004	(-0.50)
Months	-0.076	(-1.010)	-0.076	(-1.05)	-0.041	(-0.75)
λ	0.073	(0.120)	0.358	(0.45)	1.506	(1.28)
N	133		133		119	
Adj. R^2	0.223		0.224		0.362	

Note:
- Other variables in the model were urban and dummies for province of residence.
- T-statistics standard errors are heteroscedasticity consistent
- BG = Bedi and Garg (2000)
- * = p<0.05, ** = p<0.01, *** = p<0.001

Table 9: Selection-corrected earnings equations of Private Christian Schools

Dependent Variables	**BG sample BG calculation**		**BG sample Fahmi calculation**		**Fahmi sample Fahmi calculation**	
Constant	-7.904	(-2.273)	-9.070**	(-2.74)	-5.201	(-1.29)
Junior	-0.270	(-0.749)	-0.279	(-0.83)	-0.272	(-0.68)
Senior	0.480	(1.527)	0.433	(1.47)	0.284	(0.86)
Age	0.286	(1.619)	0.253	(1.61)	0.179	(0.79)
Age squared	-0.003	(-1.458)	-0.003	(-1.43)	-0.002	(-0.60)
Male	0.175	(0.851)	0.199	(0.95)	0.395	(1.47)
Bahasa	0.429	(1.196)	0.463	(1.58)	0.653	(1.73)
Hinbud	0.474	(0.918)	1.420*	(2.15)	-0.548	(-0.47)
Christ	0.536	(1.646)	1.336*	(2.54)	0.001	(0.00)
Scholar	-0.180	(-0.490)	-0.068	(-0.13)	0.404	(0.34)
Prifail	-1.001	(-3.418)	-1.002***	(-3.63)	-1.005**	(-3.26)
Fathpri	0.349	(1.076)	0.441	(1.37)	-0.008	(-0.02)
Fathjh	0.472	(1.135)	0.481	(1.17)	0.922	(1.87)
Fathsh	0.674	(1.408)	0.405	(0.77)	1.352	(1.43)
Mothpri	-0.615	(-1.736)	-0.712*	(-2.28)	0.133	(0.37)
Mothsec	0.099	(0.242)	0.001	(0.00)	-0.46	(-0.80)
Dirt floor	-0.506	(-0.720)	-0.407	(-0.63)	-0.692	(-0.83)
Clas size	0.027	(2.307)	0.033*	(2.60)	0.047*	(2.68)
Months	0.085	(1.143)	0.099	(1.17)	-0.021	(-0.18)
λ	0.031	(0.272)	-0.676	(-1.79)	0.818	(0.88)
addlinespace[0.5em] N	73		73		74	
Adj. R^2	0.560		0.591		0.305	

Note:
- Other variables in the model were urban and dummies for province of residence.
- T-statistics standard errors are heteroscedasticity consistent
- BG = Bedi and Garg (2000)
- * = p<0.05, ** = p<0.01, *** = p<0.001