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The Effects of Mothers' Profession on their Children's Academic Performance: An Econometric Analysis

Mohammad Morshedul Hoque [α], Sultana Tanjima Khanam [σ] & Mohammad Nur Nobi [ρ]

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I. Introduction

Students' academic achievement plays an important role in producing the best quality graduates who will become the great leaders and the efficient workforce of a country in the future and thus be responsible for the country's socio-economic development (Ali, et al, 2009). Over the recent few years, in Bangladesh, literacy rate and the level of education have improved remarkably and hence most of the educational institutions are improving in educational quality and creating skilled persons meeting dynamically growing market requirements. This is almost 46% according to a World Bank report. That is a reason a researcher finds out the factors affecting the students' academic performance, especially in the primary level where students are so much naïve that they do not realize what the goal of their study is, and the primary level education is thought to be the foundation of higher studies.

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In the past, most of the studies were related with students' academic performance conducting issues like gender difference, teachers' education and teaching style, class environment, socio-economic factors and educational background of the students' families. The findings of these studies differ significantly from region to region, country to county as well as cities to rural areas. Unlike the previous studies, this paper investigates the effects of mothers' profession on their school children's academic performance through the econometric analysis. For this purpose, it would be better if the study could be conducted for all school children of the country or at least all students of Chittagong city at the primary level. But for time and cost consideration it is not so easy for the author and hence only the students of the primary section of Chittagong University Laboratory School and Nipobon Shishu Biddyaloy were taken as the population.

a) Significance of the Study

A woman has multi-dimensional contributions in a family that affect the happiness of all family members. In almost all societies in the world, they are traditionally assigned to be the primary caregivers to infants and children (UNDP, 1995). Activities carried out by women such as breast feeding, preparing food and drinks, bringing water and collecting fuel, and seeking preventative and curative medical care are crucial for children's healthy development. Women also play their roles to supplement family incomes in households as well as in businesses. In developing countries like Bangladesh this participation of women is quite essential in some cases for minimum survival of a family. Because of constraints in time that women face, however, their roles as caregivers and providers of family income may conflict with one another, with potentially important implications for the welfare of children. Working may rely on other members of the household to provide child care, but the quality of care provided by these substitutes, especially if they are older children, may be poor. On the other hand, the additions of family income from mothers' employment should benefit children's tuition fees, purchasing academic accessories etc. and may more than compensate for any reductions in the quantity or quality of care, implying a net improvement in academic

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outcomes as a result of maternal work. This will be more likely if women have strong preferences for spending their income in ways that benefit their children's education, especially if women have stronger preferences for educating their children. But again the effect may be positive or negative. So the significance of this study will be to determine whether mothers' profession particularly teaching is positively or negatively correlated with children's educational outcomes. Thus, the paper aims at showing whether mothers' profession has any statistically significant influence upon the school children's academic result or not as it is not necessary to mention that in our country it is believed that if a mother goes to work outside the household, her children may be affected in nutritional intake and hence a diverse effect on their education.

b) Research Topic

The research papers over the last twenty to forty years show that the mothers' employment status is not so robust a variable that the simple comparison of the children of employed and non-employed mothers will reveal meaningful differences. In this case, relationships must be examined with attention to other variables that moderate important effects particularly social class, the parents' attitudes, income, gender, number of siblings, nature of the location etc. Obviously, these effects are different in the middle class than in the lower class and different for boys than girls.

In addition, however, the path between the mothers' employment status and children's outcomes is a long one and there are many steps in between. To understand how maternal employment affects the children's academic performance we have to understand how it affects the family because it is through the family that effects take place. In many researches, it was indicated that the particular aspects of the family that are affected by the mothers' employment status and in turn, that affect the children, are the fathers' contributions, the mothers' sense of well-being and the parenting style – that is, how they interact with their children and the goals they hold for them.

c) Objectives of the Study

The main objective of this paper is to explore the impact of mothers' occupation that influences the academic performance of primary school students. In this case, the main explanatory variable is mothers' profession. Besides, some control variables are taken as the influencing factors. However, the specific objectives are as follows:

a) To estimate the variability in students' educational outcomes;
b) To test whether mothers' profession and their level of education significantly affect the kids' scores in the final examination;
c) To make policy recommendations for the society on the basis of empirical findings of the paper.

II. Literature Review

Previously a lot of researches have been done on this issue abroad. Many researchers investigated on various variables and a lot of different variables were studied. This research is different in a way that it is, probably, one of the first researches in Bangladesh, for ought the authors' knowledge goes, in which a variable "mothers' profession" is included to study the variation in school children's educational outcomes in the primary level. Our contribution to this study is that we have explored the family background factors that affect the students' academic performance, especially at the primary level.

From a child development perspective, mothers face a trade-off between time devoted to parenting and money deciding on whether to work or not. Both money and time devoted to parenting are believed to have a positive impact on a child's cognitive as well as academic development. It is therefore relevant to estimate the effect of maternal employment on children's academic performance. Is it plausible to think that the direction of this effect changes across countries? Since the socio-economic condition in developing countries is quite different with that of in developed countries, the research findings of these countries on the issue we have selected are also different as they have modern and sophisticated daycare centers, pre-play schools and improved medical care system etc.

Ibn Mafiz et al (2012) conducted a cross-section study to investigate the effects of socio-economic, demographic and internet exposure factors on school performance among 10 grade students of Nilkhet High School, Dhaka. In this study, school performance was measured by the students' class roll number. Class roll numbers were found highly negatively correlated with the factors like family income, monthly tuition fees, number of rooms in the house, number of earning persons in the family, and this correlation was significant at 1% level. A chi-square test was carried out to check for association between the category of these factors and the school performance measured by grades. In the chi-square test, some of the factors, namely, parents' highest level of education and their occupation were statistically significant. This study also found that the school performance measured by students' grades was significantly correlated with the work on internet and the number of friends in Facebook as well.

Raychowdhuri et al (2010) have shown that it was assumed that mothers' education is positively related to the academic performance of the students. An educated as well as working mother can take better care for her child and the result of the study also proved the relation. The coefficient value is 0.17 which was found to

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be significant. It shows that there is statistically and significantly positive relationship between students' academic performance and mothers' education and profession.

Singh, P. (India) said in an investigation that the days are now over when mothers devoted their full life for developing their children. Today, women are becoming more active, independent and prefer progress in their career rather than been recognized as just homemakers. Career-oriented women continue their work soon after completion of their maternity leave. Many working women start the job early due to financial needs of their family. There can be different reasons for women to go to work instead of staying at home.

Dunifon et al (2010) in Denmark associates children's well-being with their academic performance and achievement in school and estimate the causal effect of maternal employment on children's educational outcomes. The study used detailed Danish data on over 125,000 children born between 1987 and 1992. In two out of three model specifications they found a significantly positive correlation between maternal employment and children's school grade. The paper suggests that a child of a woman who works 30 or more hours per week while her child was under the age of four is predicted to have a GPA that is 5.6% on the average higher than a child whose mother works between 10 to 19 hours per week. They found no clear evidence of a negative association between maternal employment and children's grades.

Hoffman, L.W. (1998) shows that full-time employed mothers spend less time with their infants than part-time and non-employed mothers, but this effect diminishes with maternal education and with the age of the child. In addition, the effect is also less when the nature of the interaction is considered. The data indicate that employed mothers tend to compensate for their absence in the proportion of direct interaction and in the amount of time with the child during non-work hours and on weekends. Several studies that used behavioral observations of mother-infant interaction showed that employed mothers were more highly interactive with their infants, particularly with respect to verbal stimulation. Some studies have examined the mothers' sensitivity in interactions with their infants and found no difference between the employed and non-employed mothers.

A particularly active area of maternal employment research since 1980 has involved a comparison of dual-wage and single-wage families with respect to mother-infant attachment. In most of these studies, no significant differences were found. However, in a research by Jay Belsky, it was found that although the majority of mother-infant attachments in the full-time employed-mother group were secured, the number of insecure attachments was higher when the mothers were employed on a full-time basis. Furthermore, in reviews that combined subjects across studies, full-time employed mothers were more likely than part-time employed and non-employed mothers to have insecurely attached infants.

Evidence based on longitudinal data from the United Kingdom and the United States of America generally suggests that full time maternal employment during the first year of a child's life is associated with poorer child outcomes, especially poorer cognitive outcomes. Once their kids are old enough to go to school, many parents depend on class teachers to help them learn crucial academic and life skills. And the media hype around the hiring of better and more qualified teachers in public schools conventionally broadcast the idea that a great teacher can make or break a student's school achievement. But the great classroom teachers are not so. Parents continue to play an important role in their children's education.

Arndt, B. (2000), writes that the great irony of mothers who achieve professional success is that they do so at some costs to their children. But O'Brien can hardly have expected the venom she received when her research became the focus of a BBC Panorama Program entitled "Missing Mums", which claimed that British mothers were jeopardizing their children's future by working long hours.

An Australian research report on child care hit the news, promoting headlines about the risks of informal care for children. But hidden within the federal government report was the startling finding that children in full-time child care in the first two years of their lives were rated by their early primary school teachers as being less effective learners than their peers. There were no consistent effects of the mothers' employment on any aspect of child development. (US Equal Opportunities Commission Report, 1990).

An analysis of six studies looking at 40,000 children over the last 40 years found that there was no link between mothers' continuing their careers and misbehaving. Studies have shown that children born to career-oriented mothers in the seventies to early nineties of the last century did not perform as well with their literacy and numeracy skills about two percent lower. But the latest research by Joshi, H. of the University of London Centre for Longitudinal Studies found that children born since the mid-nineties whose mothers work their early years fared just as well as those whose mothers did not.

III. Methodology

In our study, a typical student's educational outcome measured in terms of his or her scores obtained in the last final examination is assumed to depend on several factors including family income,

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family size, number of school going children in a family, parent's highest level of education, parent's profession and whether the family a student belongs to owns a home or lives in a rental house etc. To explore the effects of these factors on students' school performance we have used a cross-section, the primary data collected from the study area comprising of Chittagong University Laboratory School and Nipobon Shishu Biddyaloy. The population size of these two schools consists of more than five hundred students. But we have surveyed only the students of class four and five and only 51 students were sampled among them. Obviously, this sample size is not sufficiently enough to investigate the variation in the children's educational outcome due to mainly whether the mother of a child is employed or a full time homemaker. But because of time limitation and cost consideration we have to rely upon this size of the sample for the study.

This study used questionnaires as the sole research instruments. These questionnaires were used to collect data from the pupils. However, the students spontaneously responded to answer all of the questions and the school authority helped us seriously. The authors provided sufficient help to the students to fill out the questionnaires and in some cases especially to know the information about the respective families' income we have had contact with the parents of some students. However, a simple random sampling technique was used to sample the required data of 51 students as the sampling procedure in this study.

IV. Analysis of Data and Descriptive Statistics

For the analysis of data we have used Microsoft Excel 2007 and econometric software E-Views 7.0. As the econometric methodology, we have used the multivariate classical linear regression model (CLRM) since the dependent variable (students' educational outcomes measured as marks obtained) is a quantitative variable. Besides, there are some qualitative variables as well.

After having 51 observations regarding the students' academic result and the factors affecting this result, we have calculated descriptive statistics of all the variables such as minimum and maximum scores of sampled students, and mean, median, standard deviation, skewness and kurtosis are shown in Table 1:

Table 1: Descriptive Statistics

Variables	Educatioal Outcome (Y)	Family Income (X_2)	Family Size (X_3)	Mother's Education (D_2)	Mother's Profession (D_3)	Teaching Profession (D_4)	House Ownership (D_5)
Mean	448.58	35,333.33	4.76	2.67	0.41	0.26	0.53
Median	490.00	31,000.00	5.00	3.00	0.00	0.00	1.00
Maximum	619.00	100,000.00	9.00	4.00	1.00	1.00	1.00
Minimum	245.00	5,000.00	2.00	0.00	0.00	0.00	0.00
Std. Dev.	116.55	22,742.62	1.21	1.38	0.50	0.43	0.50
Skewness	– 0.32	1.08	0.94	– 0.49	0.36	1.25	– 0.12
Kurtosis	1.71	3.90	5.23	1.88	1.13	2.56	1.01

There are a total of 51 students in our survey and a student has an average score of 448.58 out of 650 with a minimum score of 245 and a maximum of 619. The distribution of marks obtained by all students is negatively skewed to the left which indicates that average and median score lie below the modal score. A kurtosis of 1.71 implies that this distribution is a platy-kurtic frequency distribution. We have surveyed children of various income families with income ranges from 5,000 to 100,000 BDT where the average income of a family a student comes of is 35,333 BDT per month. There are two types of family in the survey – single and joint and families included in our study have members from two to nine.

On the other hand, among the dummy (qualitative) explanatory variables, the mothers of most of the students have master's degree or above but only 41% mothers are employed on a full-time basis. Of course, 57% of employed mothers are teachers. This is our investigation that whether mothers' profession, especially if mothers are teachers at some educational institutions does have any positive contribution in improving children's quality or not.

V. Empirical Model Specification

In our study, we have used the following empirical model to measure the effects of mothers' profession on students' educational outcome:

$$Y = f(X_2, X_3, D_2, D_3, D_4, D_5)$$

where, Y = Educational outcome of a student measured in terms of marks obtained in the last final or half-yearly examination;

X_2 = Income of the family a student belongs to;
X_3 = Size of a student's family;
D_2 = Mother's education which is a binary variable. In this case, the mother's highest level of education is categorized into four – S.S.C., H.S.C., Graduate and Post-Graduate. To define the level of education of a typical mother $D_2 = 4$ indicates that the mother's highest level of education is master's or above, $D_2 = 3$

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indicates the mother is a graduate and D_2 = 2 and 1 were used for tracing a mother who has only higher secondary or secondary level education respectively. There are some zeros in our data sheet indicating that the mother's education is below the secondary level.

D_3 = Mother's profession which has two conditions – whether the mother is in service or a full time housewife. For an employed mother this dummy variable takes one and for a non-employed mother it takes a value of zero.

D_4 = Teaching profession. If the mother of a student is in service, we tried to trace out whether she is engaged in teaching profession or not and conventionally a D_4 = 1 introduces us a mother of teaching profession and a D_4 = 0 implies otherwise.

Finally, a D_5 = 1 if a family the respective student belongs to owns a house and a D_5 = 0 if it does not.

Considering these factors we have specified the following functional form of regression of educational outcome on the family background factors mentioned above:

$$Y_i = \beta_1 + \beta_2 X_{2i} + \beta_3 X_{3i} + \gamma_2 D_{2i} + \gamma_3 D_{3i} + \gamma_4 D_{4i} + \gamma_5 D_{5i} + u_i$$

Since there are quantitative as well as qualitative explanatory variables in the model, we are dealing with an **analysis of covariance (ANCOVA)** model. The ANCOVA models are an extension of ANOVA models in the sense that they provide a method of statistically controlling the effects of quantitative regressors, called covariates or control variables, in a model that includes both the quantitative and dummy regressors.

VI. Empirical Findings and Interpretation of Results

Since ANOVA or ANCOVA models do not violate the assumptions of the so-called classical linear regression model, the ordinary least-squares method is quite fit to run the regression results and hence based on the above mentioned ANCOVA model, we have estimated the following empirical results:

Table 2: Empirical Results

Dependent Variable: MARKS (Y)				
Included observations: 51				
Variable	Coefficient	Std. Error	*t*-Statistic	*p*-value
C	392.0007	73.57258	5.328082	0.0000
Family Income (X_2)	0.001824	0.000673	2.709604	0.0096
Family Size (X_3)	-6.716305	11.75156	-0.571524	0.5706
Mother's Education (D_2)	20.27946	11.29606	1.795269	0.0795
Mother's Profession (D_3)	-55.95592	36.34112	-1.539741	0.1308
Teaching Profession (D_4)	89.07502	43.86481	2.030671	0.0484
House Ownership (D_5)	-52.63608	27.72153	-1.898744	0.0642
R^2	0.431778	Adjusted R^2		0.354293
Explained variations	93.65518	Sum of squared residuals		385936.9
F-statistic	5.572412	Prob. (F-statistic)		0.000229
Durbin-Watson statistic	1.747684			

The sample regression line of the model is as follows:

$$\hat{Y}_i = 392.0007 + 0.001824 X_{2i} - 6.716305 X_{3i} + 20.27946 D_{2i} - 55.95592 D_{3i} + 89.07502 D_{4i} - 52.63608 D_{5i}$$

Now we can interpret the ordinary least-squares estimates of the ANCOVA model as,

i) The intercept (392.0007) of the regression indicates the average effects of all those factors not included in the model but are responsible for the variation in a student's academic result e.g. type and location of the school, availability of recreational facilities, motivation of students and so many other factors.

ii) $\hat{\beta}_2$ = 0.001824 suggests that *ceteris paribus*, as the income of the family a typical student belongs to goes up by one thousand taka per month a student is expected to improve his or her numerical grade on an average by 1.82 out of 650 in the next examination. In this case, the sign of the estimated slope coefficient is important not the magnitudes. Since the *t*-ratio of this coefficient is statistically significant we can conclude here that the child of a wealthier family will do better than a child of a relatively less wealthy family. This scenario is practically true because the children of richer families will enjoy so many advantages in favor of better education that the children of poorer families can never expect, such as the number of tutors, the purchasing power of required number of textbooks and other reading materials, access to internet and television facilities, food and nutrition intake, school dresses and other educational equipments to build up confidence of a student, family environment, partial dependence on the children to provide financial supports to poorer families and so on.

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iii) $\hat{\beta}_3 = -6.716305$ indicates that if the size of a family increases a student's average academic scores will be lower by approximately 7 out of 650 which is not so significant as the *t*-ratio of this coefficient is smaller than two in absolute sense. In this respect, our statement is that it may happen because if the member of a family increases in number over time a student will not get enough room facilities for a sound study. Furthermore, if the income of a family will not rise proportionately with the number of family members it will be very difficult to provide sufficient financial backup for school-going children.

Now let us interpret the dummy variable coefficients:

iv) $\hat{\gamma}_2 = 20.27946$ was found to be significant at 8 percent level. This means that the child of a mother whose highest level of education is S.S.C. or above can achieve on an average of 20 more marks out of 650 from a child of an uneducated mother. This result we expected seriously and we have obtained as our a priori expectation. An educated mother can put strong cognitive power in her kids which is the foundation for their better performance in schools. A highly educated mom can teach better than a house tutor as well as ameliorated social culture that an uneducated or less educated mother cannot do.

v) $\hat{\gamma}_3 = -55.95592$ measures the average effects of a mother's profession on educational outcome of a typical student. As the estimated coefficient is found, it indicates if a mother is employed, her child will get about 56 marks less than a child whose mother is a full time homemaker, though the coefficient is found to be insignificant.

vi) Records across countries as we have described in the literature review show that there is significantly positive relationship between mothers' profession and school students' academic performance. But we did not get this result in our study. There are several reasons behind this insignificant result such as

a) We have selected only two schools as the population. If the data can be collected from more schools from rural and metropolitan areas more significant correlation between mothers' profession and school students' academic performance could be obtained.

b) In our country, especially in city areas when a mother is absent from the family due to her job, there are no responsible persons to take care of the children so that their nutritional intake remains ignored and consequently it will have a diverse impact of the children's education.

vii) $\hat{\gamma}_4 = 89.07502$ implies that controlling on family income and family size as well as other dummy variables the child of an employed mother who is a teacher achieves significantly better score than a child without having it. This is the result we wish to find out from our study. The children of employed mothers can perform worse but if the mothers are in teaching profession it will positively influence a child to do better performance. The causes behind this may be as follows:

a) A mother in teaching profession can better take care of her child regarding home works than any other mothers.

b) The child of a mother of this profession will be more disciplined.

c) The mother who is a teacher might be the '**IDOL**' of her children so that they can try to do better.

viii) $\hat{\gamma}_5 = -52.63608$ is another estimated coefficient which has an a priori wrong sign that a student who lives in own house do not perform better. This finding could also be altered in a large size of sample from different schools.

VII. Testing the Goodness-of-Fit and Overall Significance

In our model, the coefficient of determination R^2 is found to be 0.4318 which indicates that explanatory variables altogether can account for only 43% variation of school students' academic result through the factors we have considered in our study. Thus, the estimated regression line fits the data moderately. Furthermore, the adjusted R^2 is also moderate. Obviously, this is not a high R^2 value that we can conclude that we have trace out the correct set of explanatory variables related with the variability of school students' educational outcome. But this is not so surprising result in a cross-section study.

Though the *t*-ratios of one or more individual coefficients are statistically insignificant which has been explained earlier, the *F*-statistic (= 5.57) is highly significant which does imply that though we cannot disentangle the separate influence of some factors on the marks obtained by the students, we can reject the null hypothesis that family income, family size, mothers' education and profession have statistically significant overall influences on the children's educational outcome.

VIII. Diagnostic Testing of the Model

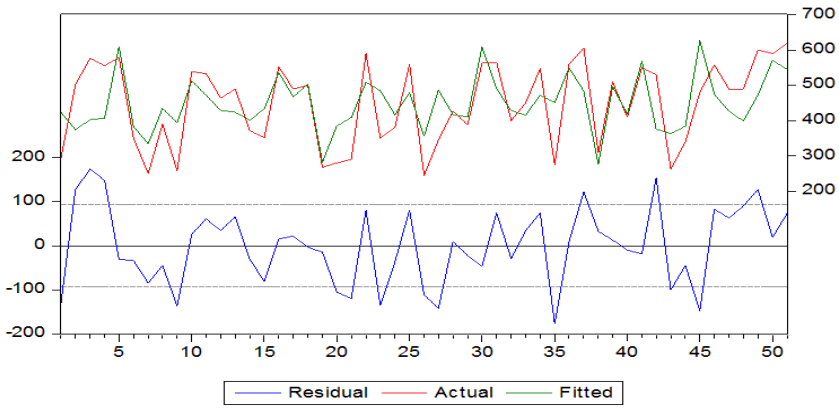
Let us now perform some diagnostic tests on the estimated ANCOVA regression model:

a) Actual vs. Fitted Graph

The actual and fitted curves are shown in the following diagram. In this diagram, the blue and the red

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lines indicate actual and fitted observations of students' marks whereas the green line in the bottom of the box indicates the residuals. Since this line does not show any remarkable patterns, we can assume primarily that the error variances do not vary over the *x*-variables on the right side.



b) Testing Multicollinearity: Condition Index

In our Analysis-of-Covariance regression model, the minimum and maximum eigen values were obtained as 0.020 and 5.032 respectively for which the condition index appears to be 15.86 as defined by the positive square root of the ratio of the maximum eigen value to the minimum. Since this index lies in between 10 to 30, we are sure to assert that the explanatory variables are not highly correlated to one another. Another symptom of high collinearity is that R^2 will be high but one or more *t*-ratios will be insignificant, which is not the case in our model. For this diagnostic test, we have used SPSS 17.0.

Table 3: Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.54533	Prob. F(6,44)	0.7708
Obs*R-squared	3.53002	Prob. Chi-Square(6)	0.7400
Scaled explained SS	1.63496	Prob. Chi-Square(6)	0.9500

c) Testing Heteroskedasticity: BPG Approach

In our model, there is no heteroskedasticity as we expect in cross-section data where disturbances have constant variances. Let us examine this through the Breusch-Pagan-Godfrey (BPG) test. Considering σ_i^2 as some function of non-stochastic variables, the BPG test defines a chi-square ratio on the basis of the explained sum of squares (ESS) which has an *F*-statistic and it was found to be 0.54 as shown in Table 3. Since this *F* value is statistically insignificant we can reject the null hypothesis that error variances are heteroskedastic.

d) Testing Autocorrelation: Durbin-Watson Method

The model has no serial correlation, that is, successive disturbances do not show any significant patterns. In our study, the estimated Durbin-Watson statistic was found to be 1.74 which is lower than 2.0 but greater than the upper critical *d* value at one percent level of significance. Thus, we cannot reject the null hypothesis that there is no autocorrelation between errors. This result is highly expected in a cross-section study where the error terms are usually uncorrelated to one another.

e) Ramsey's RESET Test of Model Misspecification

Let us now check whether we have chosen the correct model to explain the variability of students' academic performance in the final examination in our study. Ramsey, J.B. has proposed a general test of specification error called RESET (Regression Specification Error Test) to detect omitted or irrelevant variables, to trace out incorrect functional form or a model that violates the assumptions of the classical linear regression model. For this purpose, first we have to calculate the predicted values of the dependent variable *Y* and then estimate an artificial model by including some polynomial of the fitted term $\hat{Y}$ as additional explanatory variables. If we can reject the null hypothesis that the coefficients of the fitted terms are significantly different from zero, we may encounter the problem of specification error. A failure to reject the H_0 will indicate that the model is not able to detect any kind of specification error.

In this respect, the E-Views output shows that the *F*-ratio (2.50) of the RESET test was found to be significant at 12% level, which indicates that the null

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hypothesis of no model misspecification cannot be rejected at more than 12% level. Obviously, at 12% level of significance, there might be some specification error. According to the author's view, there may be some psychological factors like the understanding of father and mother, father's education, sex of the student as well as some institutional aspects such as the nature of the school a typical student is enrolled, the students' attendance in the class, teacher-student ratio, presence of trained teachers in the school, commuting time to schools from the students' residence etc. But due to time and cost consideration as we have mentioned earlier and since some of the factors are quite sensitive to deal with, it is difficult to collect data on all of these issues, which might be one of limitations of our study.

IX. Conclusion and Policy Recommendation

The study attempts to estimate the educational achievement of school students on the basis of some family background factors and for this purpose we have used the ANCOVA model where some factors were found to be significant and some are insignificant. A survey of a few students might be one of causes of finding some insignificant coefficients which is a limitation of our study. Furthermore, only two schools were selected as the population. It would be better to select more schools in the population. But the authors have to rely on a small size of sample due time and cost considerations.

However, the most important conclusion to be drawn from the analysis presented here is that whether a mother's employment status has a positive or a negative effect on school-aged children's educational outcome is entirely based on the nature of mother's job. The issue, therefore, is not ***whether*** the mother works, but what the level of her paid job is: if she has a laboring job, her work outside the home has a negative effect on her children's educational chances. But if she is a teacher in some educational institution, her kids might perform significantly better than other children and we may recommend a policy for highly educated women who are career-oriented to choose teaching profession.

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