The Philippine Review of Economics
Vol. LIV No. 2, December 2017 pp. 100-111

Amado Castro and gender equity in education

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Amado Castro very early on noticed an emerging gender equity issue in education: males doing worse than females. He made this observation before this showed up in national statistics. He also provided insights into why this trend is happening and what its implications are. More recent research has validated this observation. This paper argues for the need to fine-tune the gender equality advocacy in education in the case of the Philippines. There is a need to probe deeper and beyond the global stereotypical recommendation of promoting the education of girls alone. Failure to pursue win-win strategies to address gender bias in education working against boys could mean the country foregoing valuable opportunities to raise equity and economic returns to its investment in education

JEL classification: J16, I24
Keywords: gender equity, education, Philippines

1. Remembering an economist and gentleman

Dean Amado Castro, an economic historian, was a true gentleman: polite, soft-spoken, but assertive. He minded his manners, and he taught students to mind theirs. He drove a classy sports car and was fond of photography and of taking great pictures of favorite students with his state-of-the-art camera. Moreover, he had a perceptive mind with an eye for the well-behaved, the bright, and the beautiful.

Though soft-spoken, he had strong beliefs, and he stood by them. An example of his assertiveness was his fight (albeit, unsuccessful) for an architectural re-design of the UP School of Economics (UPSE) building to make it more conducive to student-faculty interaction. Another example is his lack of tolerance of militant students disrupting classes. He did not hesitate to penalize or to scold rowdy

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student leaders marching around, urging students to boycott classes and shouting anti-Marcos and anti-capitalist slogans.

Although we disagreed with him on some issues like family planning and rapid population growth, we honor him for his invaluable contribution to the establishment of the UPSE. The School, which he had helped to found and led in its initial years, has been a force for good in our lives and the life of the nation. We are grateful that the School has taught us how to think critically and argue based on cold logic and empirical evidence. Equally important, we have also drunk from its culture of excellence, professionalism, and good citizenship.

Dean Amado Castro added a human touch to the UPSE experience. He added spice to the daily diet of intellectual rigor that UPSE demanded from its faculty and students. He spoke for collegiality among faculty members and closer faculty-student interactions, key ingredients to making any academic institution a fun place in which to study and do research. Incidentally, it would be wise for the new generation of UPSE faculty members and students to keep in mind that collegiality coupled with the UPSE's ethos of independent thinking are key ingredients that allow a high-caliber academic institution to thrive.

Another lesson that economists steeped in econometrics can learn from Dr. Castro is the need to put the human factor back into economic analysis. He argued about the need to broaden the basis of policy decisions beyond what can be quantified and estimated through quantitative economic models. He argued that cultural and historical context must be factored back in, at least qualitatively, in thinking about policy issues. The rest of this paper discusses another of Dr. Castro's pet peeves: his concern about male education disadvantage.

2. Leaning against the wind and being politically incorrect

One of us (Paqueo) was once a member of the committee on admissions to the UPSE master's program. He remembers Dr. Castro occasionally complaining that the UPSE had been admitting predominantly women into the program. He argued that UPSE needed to re-balance the gender composition of its student body. In particular, he thought that it should take in more male than female students.

The committee explained that more women were admitted because there were more female applicants that met the selection criteria provided in the UPSE admissions' guidelines. It further pointed out that the guidelines were silent on the gender of the applicants as a consideration. Therefore, the gender distribution of admissions was simply the result of the committee's faithful application of the guidelines' selection criteria. These criteria were academic credentials, work experience, teachers' and supervisors' recommendations, and interviews by UPSE faculty members about the applicants' motivation and other gifts. The choice of those criteria was arguably intended to ensure that students admitted into the master's program had a reasonably high probability of completing their program of study satisfactorily or better.

Dr. Castro's rejoinder was that he was not asking the committee to set aside its merit-based admission criteria or to establish a quota for men. Rather, he was asking the committee to be more flexible in applying the rules, taking cognizance of the fact that, according to him, girls mature earlier and are more disciplined and academically prepared than boys.

His claim was that in Philippine culture parents tended to impose and enforce stricter norms on girls than on boys. Parents, for example, strictly insist that girls must be at home before dark; and they need to focus their spare time on reading books and completing school assignments after helping with household chores. Accordingly, he thought they tend to have better credentials for college work. In contrast, Dr. Castro thought that parents were more relaxed with boys and tended to spoil them. They are allowed to play longer and socialize more after school. Moreover, one could add that academic expectations were also probably lower for boys than girls. Also, as young adults, they were also expected to help their families generate income, if they were poor.

For those reasons, he thought that male students academically lagged behind their female counterparts. But men, he emphasized, eventually mature and perform better than women in the workplace, on average.

Dean Castro began to express his concern in the 1970s, when the development community generally thought that there was widespread gender inequality against women. Its view of the developing world was largely influenced by data from India, China, Bangladesh, Africa, and other countries. This gender inequality in education was commonly seen as iconic of the perceived unfair treatment of women in the labor market and other dimensions of human well-being. On this score, analysts of gender issues have tended to attribute gender inequality to discrimination imbedded in traditional culture, institutions, and policies.

The world bought into the narrative that boys were somehow favored over girls in education. The idea was also accepted that the gender gap reflected discrimination against women and that, therefore, must be proactively eliminated worldwide. Ending gender inequality was deemed a priority agenda for the international community to improve fairness as well as to promote family planning and social development. These ideas were being pushed by global leaders and organizations like the United Nations, the World Bank, Asia Development Bank, and international NGOs.

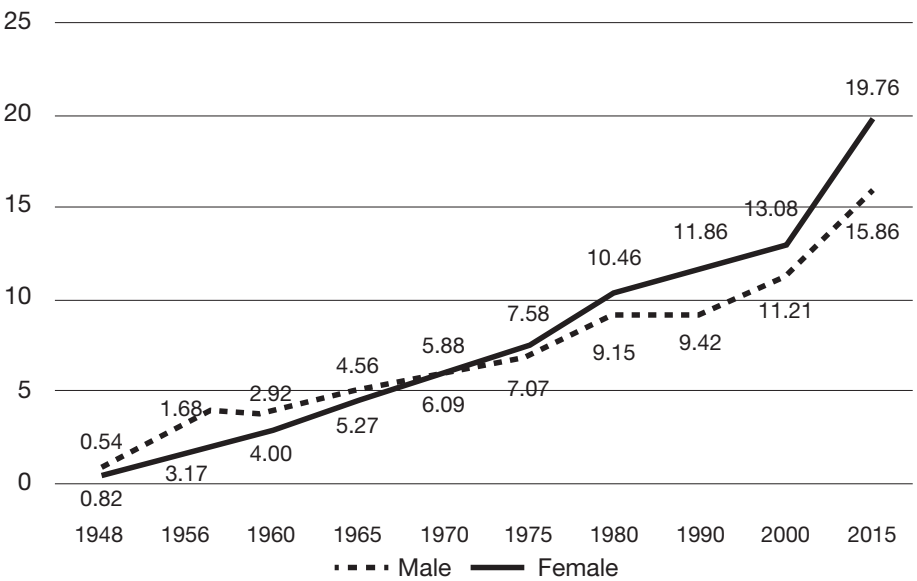
Historically, therefore, Dr. Castro's advocacy came at a time when international organizations and Philippine agencies were ramping up their advocacy for "women in development" and gender equality agenda. Despite the gender equality label, however, advocates of the agenda ignored the fact that in some parts of the world boys might actually have been lagging behind girls in educational development.

The point is that Dean Castro's expression of concern for more male inclusion in the seventies was politically incorrect. But was he right to be concerned that Filipino males were not getting their fair share of college education because of

poverty, traditional culture, and school practices that adversely influenced their academic future?

Looking at past data, we find Dr. Castro's concern to be a reasonable reading of the Philippine situation. In a paper by Orbeta and Sanchez [1995], it is clear that the percentage of the population 25 years old and over who completed four years or more of college education was initially greater on average for males than females from 1948 to 1970. But the male-female gap was steadily narrowing until the mid-1970s when the proportion of college educated women began to surpass that of men. An obvious cause for concern is that the gap has not shown an indication of narrowing down since the crossover (see Figure 1).

FIGURE 1. Proportion (percentage) of population aged 25 years and above who have finished college by sex, 1948-2015



Source of basic data: 1948, 1960, 1970, 1975, 1980, 1990, 2000, and 2015 Census of Population; 1956 and 1965 BCS Survey of Household Bulletin; Labor Force Survey with educational attainment data

The reason why the female to male student ratio in college favors women after the 1960s is likely due, at least in part, to the lower academic performance of boys relative to girls during their basic education years. The boys' lower academic performance compared to girls' in elementary and secondary education appears to be continuing.

On this score, Paqueo, Orbeta, and Albert [2011] noted that the share of youth aged 16-19 who completed elementary education (according to the 2008 data from the Annual Poverty Indicators Survey) was higher for girls (94 percent) than boys (87 percent). For young adults aged 20-24 years old who completed secondary

level education, the corresponding shares for girls and boys were 78 percent and 66 percent, respectively. The same data also indicated that the gap in completion rate between boys and girls was much larger among the poorest 30 percent that the richest 30 percent. Updating these figures using the Annual Poverty Indicators Survey 2016 shows similar results as seen in Table 1. That is 95 percent versus 89 percent for girls and boys, respectively, in elementary completion and 79 percent versus 64 percent for secondary completion.

As pointed out in Orbeta [1994], there are several possible explanations of this phenomenon that have been suggested by earlier studies, namely: the pressure on boys to drop out of school to help their parents earn needed income is greater than on girls because there are more employment opportunities in agriculture for boys [Bouis 1992]; daughters receive more education but less land [Quisumbing 1991]; and parents rely more on their daughters than on their sons to study conscientiously, keep stable jobs, and provide more consistent support in their old age (King and Domingo [1986]; Lynch and Makil [1968] and Hollnsteiner [1970]).

TABLE 1. Shares of youth and young adults who have completed elementary and secondary schooling, 2016

	Overall completion		Girls' completion		Boys' completion	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
Mean (full sample)	92	71	95	79	89	64
Richest 30%	98	93	99	98	97	87
Poorest 30%	85	46	92	55	79	38

Note: The basic analysis uses the first three income deciles (i.e., the 30% of households with the lowest income) to proxy "the poor", with the highest three income deciles to proxy the most affluent or "rich" families. Estimates of elementary and secondary completion are based on attainments of 16–19 and 20-24-year-old respondents, respectively.

Source of basic data: Annual Poverty Indicators Survey 2016

With regard to learning achievement outcomes, the data also reveal that the functional literacy rate among 10- to 15-year-old children is lower for boys (55.5 percent) than for girls (63.0 percent). Moreover, the mean percentage scores of grade six students in the National Achievement Tests appear to be uniformly higher for girls than for boys in Filipino, math, English, science, and Heograpiya, Kasaysayan at Sibika [Paqueo, Orbeta, and Albert 2011].

Both Filipino boys and girls are under-achieving in basic education and college, on average. No doubt about it. But why is the under-achievement of boys worse than that of girls? Putting it differently, why are boys falling behind girls in schooling?

Tan, Canales, Cruz, and Punongbayan [2011] examine the question empirically. They see four reasons that explain why women in the Philippines are pursuing education more intensely than men. In addition to great expansion

of educational institutions and growth of job opportunities for women, they cite traditional culture that keeps girls at home where they acquire greater discipline and allows them to study better, as Dr. Castro had earlier argued. But they also find that the rate of returns to women's education is higher relative to men's. This empirical evidence is consistent with standard economic theory of human capital accumulation. Women's education is more intense because its return is higher compared to men's, contrary to Dr. Castro's assertion. On this score, his assertion is that as they mature, men are able to use their education better and more profitably than women.

3. Recognizing gender bias against boys

We tried to call attention to this reverse gender inequality phenomenon on various occasions in the Philippines and in a few international fora. One of us (Paqueo), for example, in discussing a research report on Northeast Brazil, a poor region, in the 1990s asked for explanations about its finding showing that the educational status of boys was lagging behind that of girls—pointing out in the process that a similar phenomenon had been observed in the Philippines. In another forum, he asked whether there were similar experiences in other countries, perhaps in their sub-population groups, to find out the importance of the phenomenon found in the Philippines and Northeast Brazil. Disappointingly, the participants of the forum showed no curiosity at all about the question, oblivious to the true meaning of gender equality.

For decades, the development community benignly ignored observations that boys in some areas of the world actually lag behind girls in educational achievement. This attitude is understandable in light of the feminist agenda and the perception that ensuring fair treatment of boys is not a priority issue, given the huge global challenge of raising women's status towards parity with men's.

In the last ten years, there appears to have been some change in attitude. A number of analysts have come to recognize the importance of understanding education inequality not just from the girls' but also from the boys' perspective. The United Nations Girls' Education Initiative (UNGEI), for example, recently examined the above questions in a report [UNGEI n.d.] entitled, "Why are boys under-performing in education? Gender analysis of four Asia-Pacific countries". In developed countries, there also appears greater awareness and concern about males lagging behind in education, particularly in college. On this point, Terrier [2016] writes that boys are increasingly lagging behind girls at school in Organisation for Economic Co-operation and Development (OECD) countries. Citing OECD data, she revealed that the percentages of women and men who entered a university program in 2009 were 66 percent and 52 percent respectively—and the gap between them was growing [OECD 2012].

It is noteworthy that some policy analysts are re-discovering the argument that if education is indeed a universal human right, unfair gender bias regardless

of whether they are detrimental to the education of a boy or a girl should not be acceptable. One has to be careful, of course, that the observed gender gap is not the result of voluntary decisions of individuals and families that optimize their well-being within the bounds of legitimate constraints and employment opportunities facing them.

With regard to the UNGEI study, the question about boys' lower academic performance relative to that of girls is analyzed in four case studies, involving Malaysia, Mongolia, the Philippines, and Thailand. These are countries where boys' educational achievements are less than the girls'. The report is relevant to our discussion of the gender equality issue regarding males for two reasons. First, the report confirms our observation that the lower academic performance of boys relative to that of girls is not rare and unique to the Philippines. We observed it in Northeast Brazil; now other Asian countries have reported it as well. Second, the report provides interesting hypotheses about the factors that appear to work against boys' right to good education. Those hypotheses culled mostly from key informant and focus group discussions are worth verifying and complementing with quantitative analyses, using more rigorous causal models.

UNGEI reports specifically the following findings: families play a central role in children's educational achievement; poor families tend to withdraw boys from school because they seem to be unresponsive to learning and because boys have more diverse work opportunities than girls; the nature of the school environment itself is not gender neutral, and stereotypes (and gender bias) impede boys' potential and achievements.

Interestingly, on the last point, UNGEI observes that the four country studies identified a common notion that school "is for girls". It reports, for example, the finding of Thailand researchers that the formal education system caters primarily to girls who are perceived to be academically superior. They were told by participants in group discussions that boys become "the group of students in the back of the room that the teachers often ignore and don't show much interest in their learning, in contrast to the more attentive girl students in the front rows who normally get greater attention from the teachers …"

The study of Terrier [2016] confirms that female teachers can be an important factor adversely affecting boys' academic achievement. Starting off from the hypothesis now widely discussed in the literature that teacher biases can be a significant factor adversely affecting gender equality, Terrier explores teacher's favoritism in grading students' examination answers. Employing rigorous quantitative causal modeling on a French data set and using a combination of blind and non-blind test scores, she reports the following findings:

She finds that middle school teachers favor girls when they grade. She further finds that this favoritism has long-term consequences. Measuring their national evaluations three years later, she estimates that male students make less progress than their female counterparts. She also calculated that 21 percent of boys falling

behind girls in math during middle school is accounted for by gender-biased grading. Interestingly, girls who benefit from gender bias in math are more likely to select a science track in high school. These are provocative findings that should inspire Filipino researchers to do a similar study (properly adapted) in the Philippines where teachers in basic and college education are predominantly female.

To further enrich the discussion in this section, we present a summary of a paper by Natasha Mulji [2016]. We highlight this study to illustrate teacher gender effects on students of schools in low- versus high-income communities. The intriguing finding in this paper is the interaction effect of the economic condition of the community and the teacher's gender on the sex-specific learning achievement scores of boys and girls.

Using Trends in Mathematics and Science Study data and fixed-effects regression analysis, Mulji examines the effect of female teachers on the academic performance of male and female grade 8 students in math and science. The study finds that female teachers increase the test scores of students.

But the effect depends on the income level of the area in which their school is situated. In low-income areas, *the test scores of girls are significantly raised when taught by a female teacher, while the boys lose out when taught by female teachers.* In contrast, in high-income areas students improved their test scores regardless of gender. Why the gender effects differ between low and high community income schools is a question that calls for further investigation. It could be that school children in low-income communities in Tunisia are heavily influenced by traditional culture regarding male-female interactions. In high-income communities, school children may be comfortable with their teachers regardless of gender.

4. Finetuning gender equality advocacy

To summarize, we started the gender equality discussion in this article by recalling Dr. Castro's concern about gender equality in education and how UPSE needs to re-calibrate the way it selects applicants into its master's program. While his immediate concern was focused on UPSE, his arguments have led us to a re-examination of the assumptions and interpretations of the development communities' call for increased educational status of females to close the education gender gap.

In remembering Castro's gender equity concern, we revisited our previous economic-demographic work and looked at recent developments in gender inequality and current understanding of its determinants. In our view, there is indeed a need for a broader and more informed conversation about the gender gap issue, specifically on ways to finetune the way it is being addressed.

Rounding out the article, we share with the readers the following thoughts. First, there should be greater clarity about the meaning of the gender equality in education in situations where boys are lagging behind girls. Second, how to

achieve this more inclusive objective also needs to be clarified; more evidence-informed strategies and policy tools are needed. Third, reducing the gender gap should mean in practice improving the educational status of the educationally disadvantaged gender group (albeit, males in the Philippines) at a faster rate than the increase in academic achievement of the opposite sex.

In light of the low student academic achievement of Filipinos, however, it is clearly important to ensure that raising the academic performance of one gender group should not be at the expense of the other gender category. That this unintended consequence could happen is a lesson we draw from the above-cited studies of Terrier [2016] and Mulji [2016].

Fourth, a mix of interventions to modify household, teacher and school attitudes and norms and practices should be pursued to eliminate unfair gender biases that unjustifiably impede children's right to a good education. In short, the country should go for gender equality strategies that will on the whole produce win-win results for boys and girls. Failure to effectively pursue such win-win strategies and to reduce those gender biases means that the country is foregoing valuable opportunities to raise equity and economic returns to its investment in education.

Finally, to find, design, and implement a win-win mix of interventions, more and better ideas based on analytically sound empirical research is needed. On this score, more studies should be undertaken on the gender gap issue from the lens of the educational development of Filipino males who are currently disadvantaged on average. To make sure, however, that those interventions lead to desired results, more experimental and quasi-experimental impact evaluation methods should be employed to complement currently available studies, which mostly consist of qualitative and correlation analyses.

A good place to start would be studies that would examine teacher characteristics, their gender biases, and their sex-specific impact on the academic performance of students. The hope is that this research would lead to greater awareness among parents, teachers, and school authorities of the social, cultural, and economic factors that are hurting, perhaps unintentionally, the well-being of the young simply by virtue of being a boy or being a girl.

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