Women, Education, and Institutions:
A Tribute to the Insights and Efforts of Robert O. Keohane

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Comments and suggestions welcome
As we celebrate the scholarly achievements of Robert O. Keohane, I would like to draw attention to one particular aspect of his professional endeavors: how much he has done to advance the intellectual development of women as scholars in political science. It is difficult to think of any individual – certainly any as prominent as Bob – who has done more to mentor female would-be academics. Nearly half of his former dissertation advisees in academic positions (13 of 28, according to his December 2001 curriculum vitae) are women. This is astounding when one realizes that only 32% of those receiving their PhDs from Harvard and Duke over the past decade or so have been women, and the share of women is even smaller than this in the subfield of international relations. For his extraordinary efforts in this regard, Bob was awarded the First Mentorship Award from the Society for Women in International Political Economy (1997). Of the ten books he co-edited since 1990, fully half involved female co-editors. For a surprisingly large share of successful female scholars in international and comparative politics, he has been the major influence on our professional development and success.

As is well-known, Bob has done more than any other single scholar to advance the systematic study of international institutions over the last three decades. In *Power and Interdependence*, he and Joseph Nye focused on explaining how international agendas are formed and how international regimes change over time (Keohane and Nye 1977). In *After Hegemony*, he took up the neo-realist challenge and developed the most rigorous treatment to date for understanding the functions of international institutions and why egoistic states might have an interest in their creation and continued existence once the material conditions that led to their

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1 Between 1994 and 2004, the Harvard Government Department awarded 188 students PhDs, of which 61 (32%) were women. Statistics for Duke to be included in next draft.
establishment had eroded (Keohane 1984). From European institutions (Keohane and Hoffmann 1991; Keohane et al. 1993) to environmental institutions (Haas, Keohane, and Levy 1993; Keohane and Levy 1996; Keohane and Ostrom 1995), security arrangements (Haftendorn, Keohane, and Wallander 1999) to international legal commitments (Goldstein et al. 2001) for the last decade and a half Robert Keohane’s work has focused on explaining to an often skeptical world that international institutions are a crucial part of international life.

My contribution to this volume is inspired by both Robert Keohane’s intellectual and mentoring achievements and commitments. This chapter explores the effect of international legal commitments on improvements in the status of women and girls in education and literacy. The message is an appropriate celebration of Bob’s professional activities as well as his intellectual agenda. As much of his research suggests, international institutions matter. In fact, they seem to matter in promoting social values and policies that have enhanced the educational achievement of women worldwide.

This paper proceeds as follows. The first section discusses the global situation of women in recent decades. Severe inequalities have traditionally existed and continue to exist in much of the world between women and men. Differences in legal rights, family rights, nationality rights, and access to the means of self-betterment, employment, health care, and – the focus of this paper – education, have plagued the prospects for women around the world. The Convention for the Elimination of Discrimination Against Women (CEDAW) is the world’s premiere legal response to these inequalities. “Enforcement” of this agreement has been highly decentralized, through intergovernmental organizations designed to monitor governments’ practices; international nongovernmental women’s advocacy groups; and most especially by domestic interests who demand that their government take their treaty commitment seriously. The second section discusses the data and methods I will use to demonstrate this point. The third section provides evidence that an international legal commitment improves women’s and girls’ access to education: it tends to improve their access to primary education, literacy training, and tertiary
education. The findings are on the whole remarkably robust: international legal commitments to
address gender discrimination actually do improve, on the margins, the educational possibilities
for the world’s women. As Robert Keohane’s theoretical work leads us to expect and his own
mentoring has shown, by focusing expectations and staking one’s own reputation, commitments
to improve women’s access to education can have very real and very positive consequences.

I. The CEDAW: Women’s Rights and International Law

By almost any measure, women’s rights globally have largely been subordinated to those
of men. Back in 1979, the year that the CEDAW was open for signature, a Report on the State of
the World’s Women found that, "Women and girls constitute one-half of the world's population,
one-third of its labor force. They perform two-thirds of the world's work hours. They earn, by
estimate, only one-tenth of the world's income. They own less than one-hundredth of the world's
property. World-wide, women attend school half as often as men. Two out of every three
illiterates are female" (Langley 1988). By the turn of the millennium, women were still largely in
dire straits compared to men. According to the World Health Organization, 70% of the 1.2
billion people living in poverty are female. There are twice as many women as men among the
world's 900 million illiterates. Economically, women continue to face a clear gender
disadvantage: on average, women are paid 30-40% less than men for comparable work. In a
number of ways, then, women face important disadvantages globally.  

In 1979, shortly after Power and Interdependence was first published and as the
intellectual gears began to grind for After Hegemony, governments of the world agreed to the
Convention on the Elimination of Discrimination against Women (CEDAW). The CEDAW was
the first broad-based legal response to systematic gender inequality, and in its wake, interest in


\[^{3}\text{Adopted and opened for signature, ratification and accession by General Assembly resolution 34/180 of 18 December 1979; entry into force 3 September 1981.}\]
women’s rights picked up over the course of the 1990s. Still, resistance to explicit international legal machinery to support women’s rights is fairly widespread. The Women’s Convention came into force with a comparatively weak monitoring committee. The stature and powers of the committee were addressed in 1999 by the adoption by the UN Commission on the Status of Women of a no-reservations-allowed Optional Protocol giving individuals and groups of individuals a right to complain about their government’s violation of the treaty provisions. The Optional Protocol entered into force in December 2000.

The Women's Convention is widely viewed as "the starting point for delivery of justice for women" (Freeman and Fraser 1994) p. 124. It is quite an ambitious convention. Not only does it purport to provide women with equal political and civil rights; it was apparently intended to eliminate all forms of discrimination against women. Article 1 is quite sweeping. It defines discrimination as “…any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field.” All measures that have the effect of discriminating against women are forbidden – even if governments did not intend to discriminate. The treaty even obligates governments to “modify the social and cultural patterns of conduct of men and women, with a view to achieving the elimination of prejudices and customary and all other practices which are based on the idea of the inferiority or the superiority of either of the sexes or on stereotyped roles for men and women;…”

For all of the legal machinery that has been developed over the past two decades to address women’s issues, we know very little about their effects on the actual realization of

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4 CEDAW, Optional Protocol, Article 17. The Optional protocol to the CEDAW can be accessed at http://www.bayefsky.com/treaties/cedaw_opt.php
5 CEDAW, Article 1.
6 CEDAW Article 2.
7 CEDAW, Article 5(a).
women’s rights. No study to date has looked at the effects of the global legal centerpiece for guaranteeing women’s rights, the CEDAW itself. A central difficulty is that the CEDAW contains broad obligations that are difficult precisely to define and even more difficult for governments effectively to guarantee. My strategy is to choose one of the most basic of rights—equal access to education—which is mentioned quite explicitly, and to test the proposition that governments who have committed themselves to the CEDAW will make an effort to design policies to address educational equality. The evidence suggests that committing to the CEDAW has had some effect on spurring governments to take women’s educational rights seriously.

Why education? Education is fundamental to a whole range of other rights that the CEDAW envisions women should equitably enjoy. Access to education influences the exercise of a broad range of social and political rights, and is one of the primary determinants of the gender gap more generally (Wils and Goujon 1998). The level of education of a mother can have severe consequences for her own and for the well-being of her family. In 20 developing countries, under-five mortality was found to be significantly related to a lack of maternal education. Education is one of the important factors found to influence contraceptive use (Ainsworth, Beegle, and Nyamete 1996; Sai 1993), which, as other studies show, contributes to a reduction in female and child mortality and morbidity.

The CEDAW addresses educational equality head-on. Article 10 requires that “States Parties shall take all appropriate measures to eliminate discrimination against women in order to ensure to them equal rights with men in the field of education…” Governments are also required to provide a comparable quality of education for girls and boys in all types of schools, in rural as well as in urban areas, in pre-school, general, technical, professional and higher technical

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8 Decades of recent research has confirmed that educating girls, especially at the primary through secondary school levels, has a large positive impact on women’s earnings (relative to that of men). See for example (Knowles, Lorgelly, and Owen 2002). For a review of the research on the greater return to female than to male education, see (Psacharopoulos 1994). For household survey-based research that reaches similar conclusions in Taiwan see (Spohr 2003) and in India see (Duraiamby 2002)

education, as well as in all types of vocational training.\textsuperscript{10} Moreover, girls are to have a right to the same curricula, the same examinations, teaching staff with qualifications of the same standard and school premises and equipment of the same quality.\textsuperscript{11} They are to have equal access to scholarships and educational grants.\textsuperscript{12} Governments who become party to the CEDAW are required to address the literacy gap between men and women, and put programs in place to address the problem of female retention.\textsuperscript{13}

II. \textbf{Why Comply?}

Why should we expect an international treaty to affect women’s educational status? Surely domestic developmental, social, and political factors are the primary determinants of a government’s – indeed, a society’s – commitment to educate the female population. Nonetheless, there are good reasons to believe that an international treaty commitment may, at the margins, make a positive contribution to a government’s policy choice. Treaties raise audience costs. They use explicit language to express the serious intent of a government to live up to their substantive obligations. As such, they raise expectations and potentially reputational consequences related to flagrant non-compliance.

Treaty commitments may engage the interests of three kinds of audiences. First, since the obligations contained in treaties are intergovernmental, the state parties to a treaty have some interest in the extent to which other governments fulfill their obligations. Though arguably the most indifferent audience and hence a weak source of compliance pressure, there are good reasons to believe that at least some state parties value compliance by government with whom they have forged formal agreements. Theoretically, non-compliance with a specific legal obligation can create doubt about a government’s broader commitment to the general principle

\textsuperscript{10} CEDAW, Art. 10(a).
\textsuperscript{11} CEDAW, Art. 10(b).
\textsuperscript{12} CEDAW, Art. 10(d).
\textsuperscript{13} CEDAW, Art. 10(e and f).
that *pacta sunt servanda*: treaties are to be observed. As existential evidence of the value placed on compliance, governments have participated in the creation of institutions meant to monitor progress in meeting CEDAW obligations, and these institutions have been strengthened over time.

Treaties also engage the expectations of non-governmental actors. Transnationally, nongovernmental organization committed to human rights issues generally and women’s rights issues in particular have grown and create a context of informal accountability. They have a clear interest in governmental compliance with CEDAW, and an incentive to independently monitor, publicize, and organize to improve the chances that a government will live up to its commitments. Linkages to broader transnational networks, foreign governments, and relevant international organizations improve the effectiveness of these groups in raising awareness and highlighting half-hearted government compliance, thus leveraging their influence locally and abroad (Keck and Sikkink 1998).

Most importantly, however, may be domestic audience costs. One of the primary effects of making a treaty commitment may be to raise or to change the expectations of one’s own people. There are reasons to believe these changes may work in favor of treaty compliance. First, those who have a preference for implementing the substance of the obligation will now have a legal handle to press their claims. In some national contexts, treaties have direct consequences in national law, but even where they do not, claimants will be in a stronger moral position to press for treaty implementation. Moreover, treaty ratification should have the effect of increasing the size of the coalition for compliance. To those who favor policies that improve women’s rights, can now be added those who prefer international treaty compliance in general. The possibility of a political alliance between those who are substantively affected and those with principled or strategic reasons to comply with a legal obligation has the potential for increasing local pressures on authorities to implement the treaty’s main provisions.
III. Testing for Treaty Effects: Data and Methods of Analysis

One of the key provisions of the CEDAW is equal access to education for women. But does making a treaty commitment improve the chances their government will deliver? To begin to answer this question, it is important to develop indicators that can reasonably be interpreted as evidence of a government effort to meet treaty obligations by improving women’s access to educational opportunities. Three key areas in which I look for treaty effects are the ratio of girls to boys in primary schools, the literacy gap between males and females, and the ratio of women to men in tertiary (post high school) education. If the CEDAW has had an important impact on women’s educational possibilities, we should see improvements in some or all three of these measures.

**Ratio of Girls to Boys in Primary School**

If governments have moved to implement the educational guarantees of the CEDAW, we should be able to observe change from year to year in the ratio of girls to boys attending elementary and secondary schools. As this ratio rises, it is possible to infer a much greater government effort to provide a free and widely available opportunity for families to send their daughters to school. Obviously, this ratio alone does not capture all of the detailed requirements of the subparagraphs of Article 10, but it is a good start for examining governments’ commitment to the crucial first step: getting girls out of the house or the field or the factory and into the classroom. Figure 1 graphs the raw ratio over time. Clearly, on a global scale girls’ educational opportunities have by this measure improved over the past two decades. Indeed, the

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14 World Bank, World Development Indicators.
15 Admittedly, equal numbers in school need not mean equal education. A poignant example is given by Mai Yamani: "[in Saudi Arabia] the first school opened in 1903 was named Falah (‘success’). This school was only for men. The first school of an equivalent nature opened in Jeddah only at the beginning of the 1960s, with the name Dar al-Hanan (‘house of tenderness’). The objective of dar al-Hanan was to produce better mothers and homemakers through Islamically guided instruction.” (Yamani 2000).
data suggest that the upward trend began prior to the year in which the CEDAW was open for signature. The question we need to answer, however, is whether the public commitment to CEDAW has contributed anything to this upward trend.

*The Gender Literacy Gap*

Article 10 paragraph “e” of the CEDAW specifically requires governments to make efforts to close the literacy gap between men and women. Parties are to ensure “The same opportunities for access to programmes of continuing education, including adult and functional literacy programmes, particularly those aimed at reducing, at the earliest possible time, any gap in education existing between men and women;…” This gap is calculated as the difference between the female and the male literacy rate prevailing in a given country (female literacy - male literacy).\(^\text{16}\) A negative number indicates that women lag men in literacy. Figure 2 shows that there has been a significant improvement in the average literacy gap between 1970 and 2002, and again that this improvement began prior to the existence of the CEDAW treaty. Once again, I am interested in trying to assess the extent to which the treaty itself has influenced the rate of improvement in the literacy gap during this period.

*Share of Women in Tertiary Education Enrollments*

Finally, I consider whether making a CEDAW commitment has any effect on the possibilities for higher education for women. The treaty refers to equal opportunities for women in education *at all levels*, including professional and technical training. Are governments taking their treaty commitment seriously at the upper end of the educational spectrum? *Share of Women in Tertiary Education*\(^\text{17}\) documents the extent of this effort. Figure 3 graphs yearly country

\(^{16}\) World Bank, World Development Indicators.

\(^{17}\) School enrollment, tertiary, female (% gross): United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics. World Development Indicators,
averages for this measure. From a low of about 5% of all tertiary school students in 1970, countries on average had women in 30% of tertiary education slots in 2000.

**Method of Analysis**

The most obvious problem in assessing the effect of an explicit international legal commitment on these various indicators of women’s educational progress is that of endogeneity: would government have improved their performance with respect to the education of women, whether or not they had signed the CEDAW? Whether as a matter of modernization or socialization or world aculturation, women were “bound” to do better over time, so the argument might go, and the treaty commitment, one may reasonably argue, *reflects* rather than *shapes* governments behavior in this regard.

Perhaps the most pervasive critique of researchers who attempt to isolate the effects of international agreements on state behavior is the charge of potential endogeneity: international institutions – treaties among them – do little to influence governments beyond what they would have done in their absence (Downs, Rocke, and Barsoom 1996; Mearsheimer 1994-95). Robert Keohane was of course acutely aware of this critique, and developed a persuasive theoretical response based on game theoretical analyses and principal-agent relationships. His key response focused on the idea that principals develop international institutions to address their interests, but that they also only imperfectly control “agents” to whom enforcement and monitoring tasks have been delegated. Moreover, conditions change, and the structures that give rise to certain agreements need not persist. Therefore, while institutions may be endogenous, they may not simply be epiphenomenal of the interests or current practices of regime participants (Keohane and Martin 1999).

The two-stage least squares model employed here helps to control for the problem of treaty endogeneity. The selection equation models the influences on governments’ decision to
ratify the treaty in the first place. Treaty selection can be modeled as a function of exogenous influences on the propensity to ratify any treaty affecting women’s status (e.g., the density of ratification in one’s region, the nature of the domestic legal system, the predominance of Islam) as well as those factors that can be expected to influence compliance with the treaty’s main provisions (e.g., performance on key dimensions of the treaty prior to ratification). My strategy is to use this selection equation to instrument for the treaty commitment itself, and then ask what additional effect such a commitment has on the propensity to improve women’s educational possibilities.¹⁸

The output equation, in addition to the instrumented treaty effect, contains a series of explanatory variables that control for obvious alternatives to the CEDAW hypothesis. These variables can be characterized as largely exogenous in the context of the educational policies under examination here. I control for obvious indicators of economic development, such as GDP per capita and in some specifications GDP growth and foreign aid as a proportion of GDP. I also control for key demographic factors, such as the relative youthfulness of the population (share of population under 14 years of age) and the proportion of population living in urban areas. When examining the ratio of girls to boys in primary schools and the literacy gap, it is reasonable to control for the social and economic structures that might affect this rate; I use the prevalence of child labor as a possible systematic explanation for gender bias in these cases. Since serious civil violence is another possible influence on gender ratios, I control for civil wars. Every output equation also attempts to address the socialization or acculturation possibility – the possibility that these rates are normatively driven independently of the legal norm of treaty compliance – by controlling for the average scores on the dependent variable among the countries within the region. In every case, serial correlation is addressed by the use of a lagged dependent variable.

¹⁸ Since the selection equation involves a time-series and a dichotomous dependent variable (treaty ratification), I control for the time dependence of observations by including a counting vector (a cumulative count of years without treaty ratification) and three cubic splines. See (Beck, Katz, and Tucker 1998). In the output equation, time is handled through the use of a lagged dependent variable.
Where it was found to be significant net of these other effects (only in the case of tertiary education) I also included a year trend to reduce the possibility that time alone could account for the upward drift in all three curves.

The models employed address the treaty endogeneity problem by developing instruments for CEDAW ratification. They control for developmental and demographic explanations, and reduce the possibility of extra-legal socialization into the normative framework of women’s rights by controlling for the practices of the surrounding region. Time trends are included where appropriate and serial autocorrelation addressed with the equivalent of lagged dependent variables. And in order to minimize the confusion of cause and effect, all explanatory variables – including the CEDAW commitment – are reported lagging their effects one, three, and five periods from the observed outcome. This specification recognizes that it may take time – bureaucratically, politically, logistically – for the influences discussed here to have effects on the outcomes in which we are interested. In short, the models used here do more than any empirical work to date to isolate the effect of the treaty per se by controlling for reasonable alternatives and explicitly endogenizing the treaty commitment itself.

IV. Results

Has ratifying CEDAW had any measurable effects on women’s and girls’ access to education in those countries who are parties to the treaty? Tables 1-3 present some interesting evidence that, quite possibly, it has. There is some sensitivity to exact specification (which I will discuss below), but in general, these models produce credible results that he CEDAW has contributed positively to governments’ propensity to take the educational opportunities afforded females much more seriously than they otherwise might have done.

19 In the selection equation, the issue of how to handle time is complicated by the fact that treaty ratification is dichotomous. I therefore employ methods suggested by Beck, Katz, and Tucker by including a counting vector (counting the years from first observation without ratification) and a series of three cubic splines to handle the problem of time dependence among observations. See (Beck, Katz, and Tucker 1998).
Table 1 indicates the results for the ratio of girls to boys in primary education. The first point to make is that it is very difficult to find good explanations for changes in the encouraging upward trend depicted in Figure 1. Unsurprisingly, the prior ratio has the strongest impact on the ratio one, three, and five years in the future. Only two or three of our control variables seem to bear any relationship to the improvement. One of these is GDP per capita (for the following year’s ratio) and GDP growth rate (for the ratio three and five years hence). CEDAW ratification had a statistically significant impact on the ratio of girls to boys in primary school with a one and a three-year lag, though there is little evidence this impact endures beyond three years. For the first year after ratification, the CEDAW can account for about a quarter of a percentage point increase in the ratio. By the third year, a CEDAW commitment accounts for an estimated two-thirds of a percentage point increase. Along with a country’s wealth and growth rates, making a CEDAW commitment is one of the few factors that seems to have a systematic impact on the average national commitment to get girls into the classroom. Surprisingly, the number of women’s international non-governmental organizations does not positively affect the ratio of girls to boys in primary school; if anything the impact appears to be negative.

Ratification of the CEDAW seems also to have contributed on the margin to closing the literacy gap between women and men. Table 2 indicates that ratification is on average associated with a .06 improvement (closure) in the gender literacy gap. Since the average gap over the past three decades has been about 9.6 percentage points, and the average improvement in a year is about .29 per cent, the estimated CEDAW effect is substantively significant as well. Several
factors stand out in explaining the rate of change of the literacy gap. The significance of the literacy gap at time $t_0$ indicates that the worse the gap the stronger the improvement. Strong regional improvement effects can also be discerned. Where child labor is most common, the gap in literacy between women and men worsens rather than improves. The ratio of young to old population also helps to close the gap, as newly educated girls increasingly outnumber the older generations, which were subject to even greater educational deficits. Development assistance does not help, but GDP growth does.

[TABLE 3 ABOUT HERE]

Finally consider the effect of the CEDAW on a country’s commitment to train women beyond high school. From admittedly very low levels of tertiary education participation, the CEDAW has had an important impact on the ratio of women to men in tertiary education. Ratification is associated with a .34 increase in the ratio, growing to a 1.50 increase within five years of ratification. This is the case when we control for the previous ratio, and include a time trend as well. As in the model for primary school ratios, the endogenous effect of women’s international NGOs is negative. The ratio is also apparently influenced by demographics – large youth populations make it less likely that women will enter a tertiary educational setting. Unsurprisingly, there is also a positive impact to GDP per capita: the wealthier the country, the more likely women are to participate in higher education.

It is important to keep in mind that these are very stringent models of CEDAW effects. Because they include the equivalent of a lagged dependent variable, these tests in effect capture improvements associated with CEDAW ratification. Because they include a time trend (where statistically significant), they control for the simple linear progression of year-on-year

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20 A linear time trend proved significant and hence is only reported in the case of tertiary education. For primary school and literacy, the time trend was not at all statistically significant, and greatly increased the
improvement. Most importantly, because they endogenize the making of the treaty commitment itself, it is difficult to claim that these are improvements that “would have happened anyway.” While these are tough tests, it is also worth pointing out that none of them suggests CEDAW is the only or even the most important effect on women’s educational situation. Resources and demographics play an important role as well. Nonetheless, this is the first time it has been shown that the world’s women have, on average, been made a bit better off when their governments make an international legal commitment to work toward their educational equality than they would otherwise have been.

V. Conclusions

Robert Keohane’s work can be celebrated for a number of reasons. At the level of theoretical innovation, he demonstrated that international institutions are important arrangements worthy of our intellectual attention. Some of his most important publications made a compelling case that international institutions focus expectations, and that they raise the reputational stake governments have in performing according to regime rules. Two intellectual generations of scholars have been able to document some of the observable implications of his theoretical work. This paper demonstrates one empirical strategy for establishing a fairly non-intuitive outcome: treaties can have meaningful domestic effects, even in the absence of formal international machinery for their rigid enforcement. The world’s women have had a little better access to equal education as a result.

No less should we celebrate Robert Keohane’s own “institutional” impact. Dozens of women in political science departments around the country can testify to the crucial “commitment” that stimulated their scholarship and boosted their stature in the academic profession. To his mentorship, these results are fondly dedicated.

standard errors, including those for CEDAW. As a result, when the year time trend is included for those cases, CEDAW remains positive, but falls below traditional levels of statistical significance.
Figure 1:

CEDAW and Girls’ Education (Global Averages)

- Magenta line: ratio girls: boys
- Blue line: % committed to the CEDAW

The graph shows the trend of the ratio of girls to boys in education and the proportion of countries that have ratified the CEDAW over the years from 1970 to 1999. The ratio of girls to boys shows an upward trend, indicating an improvement in girls' education opportunities. The proportion of countries committed to the CEDAW increases significantly over the years, suggesting a growing global commitment to women's rights.
Figure 2:

Gap in literacy rates, by gender, 1970-2002

- % committed to CEDAW
- Gaps in literacy rates
Figure 3:

Women’s share in tertiary education enrollment, 1970-2002
Table 1:
The effects of the CEDAW on the ratio of girls to boys in primary school
Two-stage least squares; robust standard errors adjusted for clustering by country

<table>
<thead>
<tr>
<th>Explanatory variables:</th>
<th>Lagged 1 year</th>
<th>Lagged 3 years</th>
<th>Lagged 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEDAW ratification</td>
<td>.226* (.136)</td>
<td>.668* (.386)</td>
<td>.549 (.640)</td>
</tr>
<tr>
<td>Women’s NGOs (#logged)</td>
<td>-.506*** (.183)</td>
<td>-1.68*** (.571)</td>
<td>-1.96*** (.706)</td>
</tr>
<tr>
<td>Share of girls in primary school, t₀</td>
<td>.976*** (.0043)</td>
<td>.920*** (.012)</td>
<td>.851*** (.022)</td>
</tr>
<tr>
<td>Average regional share of girls in primary school, t₀</td>
<td>.006 (.006)</td>
<td>.024 (.018)</td>
<td>.048* (.025)</td>
</tr>
<tr>
<td>Prevalence of child labor</td>
<td>-.003 (.007)</td>
<td>-.019 (.020)</td>
<td>-.047 (.029)</td>
</tr>
<tr>
<td>GDP per capita (logged)</td>
<td>.115* (.061)</td>
<td>.266 (.200)</td>
<td>.301 (.307)</td>
</tr>
<tr>
<td>Overseas Development Assistance/GDP</td>
<td>-.0000 (.0000)</td>
<td>-.0000 (.0000)</td>
<td>-.000013 (.000014)</td>
</tr>
<tr>
<td>GDP growth rate</td>
<td>.005 (.008)</td>
<td>.031** (.015)</td>
<td>.043** (.021)</td>
</tr>
<tr>
<td>Civil war</td>
<td>.246 (.170)</td>
<td>.540 (.504)</td>
<td>.227 (.759)</td>
</tr>
<tr>
<td>% Population under 14 (logged)</td>
<td>.154 (.231)</td>
<td>.027 (.819)</td>
<td>.595 (1.16)</td>
</tr>
<tr>
<td>% Population urban (logged)</td>
<td>-.023 (.152)</td>
<td>-.101 (.434)</td>
<td>-.359 (.641)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.5*** (.778)</td>
<td>8.92*** (2.35)</td>
<td>16.44*** (3.37)</td>
</tr>
</tbody>
</table>

Number of Obs. | 2693 | 2418 | 2154
Number of country clusters | 141 | 137 | 130
R-squared | .995 | .971 | .94

Instrumented: CEDAW ratification; Women’s INGOs
Instruments: ratio of girls to boys in primary school prior to CEDAW ratification; Average regional share of girls in primary school; Prevalence of child labor; % Population under 14 (logged); % Population urban (logged); GDP per capita (logged); Civil war; dummy for years including year of ratification, number of years without ratifying; percent of region ratifying CEDAW and CRC; Islam; British legal culture, foreign development assistance/GDP; 3 cubic splines (based on years without ratifying CEDAW or CDC).

*= significant at .10; **=significant at .05; ***=significant at .01
Table 2:
The effects of the CEDAW on the literacy gap between men and women
Two-stage least squares; robust standard errors adjusted for clustering by country

<table>
<thead>
<tr>
<th>Explanatory variables:</th>
<th>Lagged 1 year</th>
<th>Lagged 3 years</th>
<th>Lagged 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEDAW ratification</td>
<td>.062*</td>
<td>.066**</td>
<td>.066**</td>
</tr>
<tr>
<td></td>
<td>(.035)</td>
<td>(.033)</td>
<td>(.032)</td>
</tr>
<tr>
<td>Literacy gap, $t_0$</td>
<td>-.014***</td>
<td>-.018***</td>
<td>-.021***</td>
</tr>
<tr>
<td></td>
<td>(.003)</td>
<td>(.003)</td>
<td>(.003)</td>
</tr>
<tr>
<td>Average regional</td>
<td>.610***</td>
<td>.535***</td>
<td>.474***</td>
</tr>
<tr>
<td>improvement in literacy</td>
<td>(.130)</td>
<td>(.122)</td>
<td>(.116)</td>
</tr>
<tr>
<td>gap, $t_0$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevalence of child</td>
<td>-.009***</td>
<td>-.010***</td>
<td>-.011***</td>
</tr>
<tr>
<td>labor</td>
<td>(.003)</td>
<td>(.002)</td>
<td>(.003)</td>
</tr>
<tr>
<td>GDP per capita (logged)</td>
<td>-.010</td>
<td>-.0007</td>
<td>.010</td>
</tr>
<tr>
<td></td>
<td>(.032)</td>
<td>(.032)</td>
<td>(.775)</td>
</tr>
<tr>
<td>Overseas Development</td>
<td>-.000003***</td>
<td>-.000003**</td>
<td>-.000002**</td>
</tr>
<tr>
<td>Assistance/GDP</td>
<td>(.0000001)</td>
<td>(.0000000)</td>
<td>(.00000009)</td>
</tr>
<tr>
<td>GDP growth rate</td>
<td>.003***</td>
<td>.003**</td>
<td>.0019</td>
</tr>
<tr>
<td></td>
<td>(.0015)</td>
<td>(.001)</td>
<td>(.0015)</td>
</tr>
<tr>
<td>% Population under 14</td>
<td>.300***</td>
<td>.302***</td>
<td>.298***</td>
</tr>
<tr>
<td>(logged)</td>
<td>(.095)</td>
<td>(.098)</td>
<td>(.097)</td>
</tr>
<tr>
<td>% Population urban</td>
<td>-.018</td>
<td>-.039</td>
<td>-.069</td>
</tr>
<tr>
<td>(logged)</td>
<td>(.073)</td>
<td>(.070)</td>
<td>(.069)</td>
</tr>
<tr>
<td>Constant</td>
<td>.731**</td>
<td>.742***</td>
<td>.771***</td>
</tr>
<tr>
<td></td>
<td>(.282)</td>
<td>(.263)</td>
<td>(.248)</td>
</tr>
<tr>
<td>Number of Obs.</td>
<td>2974</td>
<td>2740</td>
<td>2504</td>
</tr>
<tr>
<td>Number of country</td>
<td>121</td>
<td>121</td>
<td>120</td>
</tr>
<tr>
<td>clusters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>.35</td>
<td>.40</td>
<td>.46</td>
</tr>
</tbody>
</table>

Instrumented: CEDAW ratification
Instruments: improvement in literacy gap prior to CEDAW ratification; Average regional improvement in literacy gap; Prevalence of child labor; GDP per capita (logged); foreign development assistance/GDP; GDP growth rate; % Population under 14 (logged); % Population urban (logged); dummy for years including year of ratification, number of years without ratifying; percent of region ratifying CEDAW; Islam; British legal culture; 3 cubic splines (based on years without ratifying CEDAW).
Table 3: 
The effects of the CEDAW on the ratio of women to men in tertiary education  
Two-stage least squares; robust standard errors adjusted for clustering by country

<table>
<thead>
<tr>
<th>Explanatory variables:</th>
<th>Lagged 1 year</th>
<th>Lagged 3 years</th>
<th>Lagged 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEDAW ratification</td>
<td>.344*** (.147)</td>
<td>1.10*** (.400)</td>
<td>1.50*** (.564)</td>
</tr>
<tr>
<td>Women’s NGOs (#logged)</td>
<td>- .314*** (.118)</td>
<td>-1.03*** (.375)</td>
<td>-1.03** (.500)</td>
</tr>
<tr>
<td>Share of women in Tertiary</td>
<td>1.02*** (.009)</td>
<td>1.03*** (.029)</td>
<td>1.04*** (.043)</td>
</tr>
<tr>
<td>education, t₀</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Population under 14</td>
<td>-1.21*** (.336)</td>
<td>-4.25*** (1.103)</td>
<td>-6.80*** (1.56)</td>
</tr>
<tr>
<td>(logged)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Population urban</td>
<td>.032 (.106)</td>
<td>.195 (.342)</td>
<td>.189 (.494)</td>
</tr>
<tr>
<td>(logged)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP per capita (logged)</td>
<td>.116 (.078)</td>
<td>.388 (.243)</td>
<td>.642* (.353)</td>
</tr>
<tr>
<td>Civil war</td>
<td>-.125 (.098)</td>
<td>-.267 (.289)</td>
<td>-.074 (.518)</td>
</tr>
<tr>
<td>Year</td>
<td>.015** (.007)</td>
<td>.059** (.024)</td>
<td>.087** (.035)</td>
</tr>
<tr>
<td>Constant</td>
<td>-32.29** (14.45)</td>
<td>-124.58*** (47.00)</td>
<td>-184.36*** (69.07)</td>
</tr>
<tr>
<td>Number of Obs.</td>
<td>3107</td>
<td>2870</td>
<td>2581</td>
</tr>
<tr>
<td>Number of country clusters</td>
<td>150</td>
<td>147</td>
<td>147</td>
</tr>
<tr>
<td>R-squared</td>
<td>.99</td>
<td>.96</td>
<td>.93</td>
</tr>
</tbody>
</table>

Instrumented: CEDAW ratification; Women’s INGOs. 
Instruments: Share of women in education prior to CEDAW ratification, % Population under 14 (logged); % Population urban (logged); GDP per capita (logged); Civil war; Year; dummy for years including year of ratification, number of years without ratifying; percent of region ratifying CEDAW; Average regional share of women in tertiary education; regional WINGO presence (logged); Islam; British legal culture; foreign development assistance/GDP; 3 cubic splines (based on years without ratifying CEDAW).

*= significant at .10; **=significant at .05; ***=significant at .01
References:


