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## **Trends in adolescent unions and childbearing in four Central American countries**

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Centro Centroamericano de Población

## Trends in adolescent unions and childbearing in four Central American countries

### Tendencias en las uniones y la maternidad adolescente en cuatro países de Centro América

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#### ABSTRACT

**Context:** Four low-income Central American nations—El Salvador, Guatemala, Honduras and Nicaragua—have the highest rates of adolescent fertility in Latin America. More information on time trends in adolescent marital and reproductive behaviors is needed to assess the need for improved information and services to delay marriage and childbearing. **Methodology:** Data from these countries' recent Demographic and Health Surveys and Reproductive Health Surveys are used to examine trends in adolescent unions and childbearing by comparing two cohorts roughly a generation apart, 40–44-year-olds and 20–24-year-olds. We tested for significant differences over time, both for women overall and within subgroups, using Pearson  $X^2$  statistics that take the stratified, cluster sample design into account. **Findings:** As of 2001–2005/6, adolescent unions, which are far more likely to be consensual than legal, were still widespread in the subregion, as 45–60% of 20–24-year-old women in these four countries had entered into a union before their 20<sup>th</sup> birthday. Nonetheless, such early unions have fallen significantly over time in all four countries, declining by relatively less in Honduras (by six percentage points) than in the other three countries (by 10–15 percentage points). In contrast, no comparable uniform trend emerged in the timing of first births: The proportions giving birth before age 20 fell significantly only in Nicaragua (by eight points); declines were smaller and nonsignificant in the other three countries (2–5 points). At the subgroup level, just one change was significant within area of residence—the 12-point decline in the proportion with any adolescent birth in urban areas in Nicaragua. Although the change was not significant at the population level, adolescent births increased significantly among less-educated women and the poorest women in El Salvador and Honduras, as traditional behaviors likely became more concentrated in those subgroups of women that shrank over time. **Conclusions:** Possible reasons for why first births did not decline in tandem with first unions in El Salvador, Guatemala and Honduras include greater pressure and desire to conceive sooner after entering a union and a possible increase in premarital conceptions and childbearing. Since evidence suggests that women are having now fewer second- and third-order births during adolescence but not necessarily postponing a first birth until after age 20, more innovative strategies are needed to help them adopt contraceptive use before rather than after a first birth.

**Key words:** adolescent pregnancy; adolescent unions; Central America; consensual unions

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## RESUMEN

**Contexto:** Cuatro países Centroamericanos de bajos ingresos—El Salvador, Guatemala, Honduras y Nicaragua—tienen las tasas de fecundidad adolescente más altas de América Latina. Mayor información sobre las tendencias en conductas reproductivas y en uniones maritales se requiere para evaluar la necesidad de una mejor información y servicios que demoren las uniones y la maternidad a temprana edad. **Metodología:** Datos de encuestas recientes de Demografía y Salud (DHS), y de encuestas de Salud Reproductiva (CDC), se utilizaron para examinar las tendencias en las uniones y la maternidad adolescente, al comparar dos cohortes distantes apenas una generación: 40 a 44 años y 20 a 24 años de edad. Para medir si las diferencias a través del tiempo eran significativas, tanto para el grupo total de mujeres como dentro de los subgrupos de mujeres, se utilizó la estadística de  $X^2$  de Pearson, que toma en cuenta el diseño de muestra estratificada por conglomerados. **Resultados:** Hacia el 2001 a 2005/06, las uniones adolescentes, que tienden a ser más consensuales que legales, eran aún ampliamente extendidas en la subregión. Entre 45% y 60% de las mujeres de 20 a 24 años en estos cuatro países había entrado en unión antes de cumplir los 20 años. Sin embargo, tales uniones tempranas habían disminuido significativamente a través del tiempo en los cuatro países, descendiendo relativamente menos en Honduras (por seis puntos porcentuales) que en los otros tres países (por 10 a 15 puntos porcentuales). Por el contrario, no hubo una tendencia uniforme comparable en la ocurrencia de los primeros nacimientos. La proporción de mujeres que da a luz antes de los 20 años disminuyó significativamente solo en Nicaragua (por ocho puntos). En los otros tres países, los descensos fueron menores y no significativos (dos a cinco puntos). A nivel de subgrupo, solo hubo un cambio significativo dentro de área de residencia—la proporción de mujeres que dieron a luz durante la adolescencia en áreas urbanas, disminuyó en 12 puntos en Nicaragua. Aunque el cambio no fue significativo a nivel de la población, los nacimientos durante la adolescencia se incrementaron significativamente entre las de menor nivel educativo de El Salvador y entre las mujeres más pobres de Honduras, debido a que las conductas tradicionales probablemente se arraigaron más en estos subgrupos de mujeres, los cuales están integrados cada vez más por un número menor de mujeres. **Conclusiones:** Las posibles razones por las cuales los primeros nacimientos no disminuyeron a la par con la reducción de las primeras uniones en El Salvador, Guatemala y Honduras, incluyen la mayor presión y deseo de concebir inmediatamente después de entrar en una unión; y un posible aumento en concepciones y nacimientos premaritales. Puesto que la evidencia sugiere que las mujeres están teniendo ahora menos segundos y terceros nacimientos durante la adolescencia, aunque no necesariamente están aplazando el primer nacimiento para después de los 20 años, se requieren estrategias más novedosas para ayudar a las jóvenes a utilizar más los anticonceptivos antes y no después del primer nacimiento.

**Palabras clave:** embarazo en adolescentes; unión entre adolescentes; América Central; unión consensual

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## 1. INTRODUCTION

The timing of a woman's first child can have far-reaching consequences on her individual well-being and, at the population level, on the overall pace and direction of a country's growth and development. Too-early marriage and childbearing can disrupt a young woman's education and reduce her chances of joining the paid labor market and achieving autonomy and self-sufficiency (Alan Guttmacher Institute, 1998; Clark, 2006; Flórez, 2003; Lloyd, 2005). In Central America, the prevalence of adolescent<sup>4</sup> childbearing is disproportionately higher among the most disadvantaged women: those who are poor, who live in rural areas, and who belong to indigenous groups (Bautista-Sabonge, 2006; Blandón, 2006; Figueroa, 2006). For these young women, giving birth during adolescence often perpetuates a vicious cycle of poverty and can even deepen socioeconomic disadvantage. Giving birth before immature bodies have fully developed (at age 16 and younger) can be dangerous to a young woman's physical health, and infants born to mothers aged 18 and younger have an increased risk of poor health outcomes and of dying in infancy (Lloyd, 2005). These risks are exacerbated for poor adolescent mothers with inadequate nutrition and who have limited access to adequate prenatal and delivery care.

According to surveys conducted from 2001 through 2005–2006, four nations that share borders along the isthmus of Central America—El Salvador, Guatemala, Honduras and Nicaragua—also share the highest adolescent fertility rates in all of Latin America and the Caribbean, from 102 to 119 adolescent births per 1,000 15–19-year-olds<sup>5</sup> (ADS, 2004; INEC & MINSA, 2002; MSPAS et al., 2003; Secretaría de Salud [Honduras], 2006). These levels are closer to the United Nations' medium-range estimates for Africa (116 per 1,000) than they are to estimates for Latin American as a whole (80 per 1,000) (UN Population Division, 2007).

In population size, El Salvador, Honduras and Nicaragua are roughly equal, whereas Guatemala has about twice the population of each of the others. Guatemala is also the only one of the four with a substantial indigenous population, i.e., 41% (INE, 2003) predominantly Mayan. Together these four nations account for roughly 80% of the total Central American<sup>6</sup> population (CCP, 2007).

The countries are relatively similar in terms of overall level of socioeconomic development and are among the poorest in Latin America. The proportion living in poverty ranges from 46% in El Salvador and Nicaragua, to 56% in Guatemala, and reaches 72% in Honduras (Table 1). Severe economic difficulties have, in large part, driven the common phenomenon of migration, both within countries (i.e., from rural to urban areas) and to other countries. Yet despite movement in search of economic opportunity, all four focus countries are still substantially rural, in contrast to

<sup>4</sup> In this article, we use the term “adolescent” to designate the age range of 15–19.

<sup>5</sup> After the analysis was completed, the preliminary report of the 2006/07 CDC Reproductive Health survey, *Encuesta Nicaragüense de Demografía y Salud* was released. Although as of this writing the dataset remain unavailable, the preliminary report shows that the adolescent fertility rate for Nicaraguan 15–19-year-olds fell further from 2001 to 2006/07, from 119 births per 1,000 to 106 per 1,000. (See: Instituto Nacional de Información de Desarrollo (INIDE) and Ministerio de Salud (MINSA), *Informe Preliminar: Encuesta Nicaragüense de Demografía y Salud, Managua, Nicaragua*: INIDE and MINSA, 2007.)

<sup>6</sup> We define Central America as the seven countries, north to south, on the isthmus—Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica and Panama. We do not consider Mexico to be part of Central America, although some international organizations (e.g., the United Nations) do.

the predominantly urban Latin American region as a whole (i.e., only one-quarter live in rural areas)(UN Population Division, 2008). The proportion living in rural areas ranges from 42% in El Salvador to 56% in Honduras.

These countries' entrenched poverty is reflected in their very low levels of schooling, especially among subgroups that have much lower levels of educational attainment than the national average. Young women in rural areas and indigenous women likely fare much worse than their urban and nonindigenous counterparts. For these young women, myriad cultural, socioeconomic and structural barriers prevent them from getting the schooling they need. For example, despite guarantees of free primary schooling by national governments, the reality is that one or more of a variety of fees and expenses—for tuition, registration, transportation, uniforms, textbooks and supplies, school meals and school construction (Benaouett, 2007)—have resulted in *de facto* poverty-based exclusion from school in all four countries (Tomasevski, 2006). Indeed, of the total of 18 Latin American countries examined in a 2005 study, these very four have the lowest projected primary-school completion rates for 2015: An estimated one-fifth to one-third of 15–19-year-olds will likely not finish primary school that year (Machinea, 2005).

The focus countries are also outside the norm for much of non-Caribbean Latin America in their longstanding culture of consensual unions.<sup>7</sup> Such unions outnumber legal marriages among adolescents in all four countries and among all women of reproductive age in three countries (the exception being Guatemala) (special tabulations of data from FESAL, 2002/03; from ENSMI, 2002; from ENDESA, 2001; and from ENDESA 05/06). Among the unions involving adolescent women, for example, three-fifths and three-quarters are consensual in Guatemala and Nicaragua, respectively; that proportion reaches the vast majority in El Salvador and Honduras (86–90%).

Although limited research suggested that very early entry into union (before age 15) is significantly and independently associated with being in a consensual union in El Salvador, Nicaragua and Guatemala (Honduras was not included in the analysis) (Castro Martín, 2007), whether or how early childbearing might be associated with consensual unions is unknown. We do know that these societies make no major distinction between the two types of unions in recognizing the relationship and the resulting children as legitimate. Nonetheless, consensual unions tend to carry lower social status than formal marriages and are more prevalent among less-educated and poorer women (Castro Martín, 2007; Parrado, 1997). Since consensual unions are commonly characterized by less male responsibility, lower levels of female autonomy and less stability, women in such informal marriages are especially vulnerable to the intractable poverty of female-headed households.

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<sup>7</sup> In this article “marry” is synonymous with to enter into both consensual and legal unions.

## 2. METHODS

To get a sense of how adolescent union formation and childbearing in these four countries may be changing over time, we analyzed recent trends in the timing of first unions and first births. Our focus is on women exclusively. One limitation that should be acknowledged is that the overwhelming preponderance of consensual unions means that the interviewed women lack clear reference points in terms of religious ceremonies and legal contracts. Thus, the initiation dates of their unions should be interpreted with caution.

The data used in the analysis come from recent nationally representative reproductive health surveys that were conducted in the four focus countries from 2001 through 2005–2006. The data collection efforts in El Salvador in 2002/03 (ADS, 2004) and Guatemala in 2002 (MSPAS et al., 2003) were carried out as part of the Reproductive Health Surveys program (with technical assistance from the Centers for Disease Control and Prevention) whereas the surveys conducted in Nicaragua in 2001 (INEC & MINSA, 2002) and in Honduras 2005/06 (Secretaría de Salud, 2006) are part of the Demographic and Health Surveys program (with technical assistance from Macro International). These surveys have comparable data on the variables analyzed in this article.

To assess changes over time in adolescent behaviors, we use data from two cohorts roughly a generation apart from the same survey year. To ensure that we base our data on women who have completed their years of exposure to the risk of adolescent unions and childbearing, our younger cohort consists of 20–24-year-olds; women aged 40–44 make up the older cohort. The responses of these older women are susceptible to recall bias, as they were asked to recall the timing of events that could have occurred as many as 30 years in the past. The numbers of women in these age-groups in each country's samples are presented in Table 2.

We use Pearson chi-square statistics to test for significant differences over time between current 40–44 and 20–24 year-olds, both overall and within subgroups. The subgroups are those created by women's area of residence (urban and rural); educational attainment (fewer than seven years of schooling and receipt of seven or more); and socioeconomic level, as determined by an index of goods and services and household characteristics (high, middle and low), which was made comparable across the surveys. For the CDC surveys, the index built on the following nine household items—electricity, television, gas or electric stove, running water, refrigerator, telephone, toilet, vehicle and at least four rooms. For the DHS surveys, the index encompassed these and additional goods and services, such as type of sewage system and sanitation, construction characteristics of the dwelling (type of material used in the floor, walls and roof), type of lighting and ownership of dwelling.

The significance testing takes into account the stratified, cluster-sample design of the reproductive health surveys used. Because education can contribute substantially to women's ability to delay marriage and childbearing, we also present changes over time in the completion of at least seven years of schooling in these countries. All data presented are weighted.

### 3. RESULTS

One crucial area of women's lives that shows recent undeniable progress is education. The proportion of women who have had attended school for at least seven years, which roughly corresponds to having received some secondary schooling, has increased dramatically over the past two decades. According to surveys conducted from 2001 through 2005–06, from 39% of young women in Guatemala to 64% in El Salvador have now attended school for at least seven years, a sizable increase from the 22–33% among women aged 40–44. Of course, much greater and more sustained progress is clearly needed, as absolute levels of schooling are still quite low, especially in Guatemala and Honduras. The majority of 20–24-year-old women in these countries, 60–61%, have just six or fewer years of schooling as of 2002 and 2005/06, respectively.

#### 3.1 Early unions declined in each of the four countries

Majorities of young women in Honduras and Nicaragua (54–60%), and close to half in El Salvador and Guatemala (45–50%) still form a union during their teenage years. Yet, in likely reflection of women's gains in education, adolescent unions fell consistently over time in all four countries: The proportion entering into a consensual or legal union before their 20th birthday dropped significantly, from 57–70% of 40–44-olds to 45–60% of 20–24-year-olds in all four countries (see Table 2). Although these declines were strongly ( $p < .01$ ) or highly ( $p < .001$ ) significant, the absolute percentage-point decline was relatively lower in Honduras than in the other three countries (6 vs. 10–15 percentage points). In possible reflection of Honduras's somewhat slower progress, it is the only country of the four with an unchanging proportion marrying even earlier, before age 18 (a persistent two-fifths of both 40–44-year-olds and 20–24-year-olds in Honduras, compared with significant declines in El Salvador (from 38% to 27%), in Guatemala (from 44% to 35%), and in Nicaragua (from 50% to 43%; not shown).

When we examine changes over time in any adolescent union (before age 20) within subgroups, some unexpected patterns emerge. The change was significant for both better- and less-educated women in Guatemala only (Table 2). In contrast, within residence subgroups, adolescent unions declined significantly among both urban and women in all four countries. Declines in early marriage within socioeconomic subgroups were consistent across the four countries: The proportions marrying before age 20 fell significantly in the upper two categories only; unfortunately, change bypassed the poorest women, whose rate of adolescent unions remained the same across both cohorts.

#### 3.2 Timing of first births changed much less by comparison

Although women in the aggregate appear to be postponing early unions, no such postponement of first births appears to be following suit, except in Nicaragua. In El Salvador and Honduras, roughly the same proportion of women aged 20–24 as those aged 40–44 had their first child before their 20th birthday (nearly one-half in both cohorts, Table 2). The timing of first births changed somewhat more in Guatemala (where the proportion fell by five percentage points), but only in Nicaragua was the change over time statistically significant (at  $p < .05$ ; decline of eight percentage points).

Turning now to changes within subgroups rather than at the population level, the only significant change within a residence subgroup took place in urban areas of Nicaragua. The proportion of urban 20–24-year-old women who gave birth as an adolescent is 11 percentage points lower than that of urban 40–44-year-old women (40% compared with 51%,  $p < .001$ ; Table 2).

In general, there were no significant differences over the past two decades in the timing of first births among women in each education subgroup—better-educated (seven or more years of schooling) and less-educated (fewer than seven years) with two exceptions: In Honduras, unexpectedly, the proportion ever giving birth as an adolescent rose among better-educated women (from 20% to 26%;  $p < .05$ ; Table 2). In El Salvador, the proportion giving birth before age 20 rose among less-educated women (from 54% to 66%;  $p < .01$ ).

We present percentage-point differences between cohorts rather than the proportions themselves (Figure 1) to illustrate how the relative stability in the aggregate—i.e., no change over time in an adolescent birth except in Nicaragua—masks fluctuations within socioeconomic subgroups. The changes over time within socioeconomic subgroups diverged, with the proportions of poorer women having an adolescent birth significantly *increasing* in El Salvador and Honduras, even as those proportions were significantly declining among middle-income and more affluent women in all four countries. For example, the proportions giving birth during adolescence decreased over time among the wealthiest women in El Salvador, Guatemala and Nicaragua (by 14–15 percentage points), even as they rose among the poorest women in El Salvador and Honduras (by 14 and five percentage points, respectively).

When we look at whether women had ever given birth even earlier, before age 18, which conflicts even more with adolescents' ability to finish high school, we see the same disconcerting results among socioeconomic subgroups (Figure 2): Only better-off subgroups of women (in Honduras and Nicaragua) are experiencing significant declines in very early first births before age 18, whereas poorer women are seeing significant increases (in El Salvador and Honduras).

Further, as with any birth before 20, the proportions giving birth even earlier significantly rose over time among less-educated Salvadoran women (by 14 percentage points; not show) and among less-educated Honduran women (by five percentage points; not shown). Other findings worth noting are the increase over time in very early childbearing among Salvadoran rural women (by six percentage points) and the decline among Nicaraguan urban women (by seven percentage points).

### 3.3 Changes in the number of births during adolescence

We now turn to adolescent-only data from two consecutive surveys; this changes our frame of reference from comparing older and younger cohorts in the same survey to comparing adolescents from earlier and more recent surveys fielded in each country. Despite the stagnation in timing of first births in three of the four countries over an even longer interval, women in the subregion appear to be having fewer births during adolescence in the past decade. Adolescent fertility rates—the number of births each year per 1,000 15–19-year-olds—fell consistently, by 1.4–2.9% annually (Table 3). Women are likely thus having fewer second and third births during adolescence, even if the timing of first births has not changed significantly over the past two decades, except in Nicaragua.



Despite the declines in overall rates, the absolute numbers of adolescent births have not dropped appreciably over the past decade because of high recent fertility; that is, there are simply more adolescent women to begin with, in all countries except El Salvador, where recent fertility was not quite as high (Table 3). Applying adolescent fertility rates to UN population data shows that absolute numbers of births to adolescents increased slightly in Guatemala (going from 69,000 in 1995 to 72,000 in 2002, as the absolute numbers of adolescent Guatemalan women went from 550,000 to 635,000). The number of adolescent births stayed the same in Nicaragua from 1992–93 to 2001 (a constant of 34,000–35,000); and declined only slightly in Honduras (from 42,000 in 1996 to 39,000 in 2005/06). Births declined more in El Salvador (from 41,000 in 1994 to 33,000 in 2002/03), consistent with that country being farther along in the fertility transition than the other three.

#### 4. DISCUSSION

At the national level, the trends in adolescent unions—before age 18 (except in Honduras) and before age 20—show encouraging declines. When we dig deeper into those declines at the subgroup level, however, only in Guatemala are declines in adolescent unions significant within education subgroups; that country happens to be the one with the smallest change over time in women's educational attainment. The lack of significant change within education subgroups in the other three countries is likely linked to far more drastic shifts in the make-up of those subgroups across time. For example, in El Salvador, although the likelihood of marrying as an adolescent remained essentially the same in each cohort for better-educated women (32% vs. 33%) and less-educated women (65% vs. 69%), the overall composition of the population shifted over the last two decades to include twice as many better- than less-educated women. That is, as the overall proportions of Salvadoran women in the better-educated category doubled over time, so did their relative contribution to the total marrying before 20 (i.e., they contributed 11% of the total 57% marrying early among 40–44-year-olds but 21% of the 45% marrying early among 20–24-year-olds).

Within other subgroups whose composition did not change quite so much over time, national-level declines in adolescent unions were equally apparent in rural as in urban areas and among women in the two higher socioeconomic status categories. Poorer women, however, appear to be lagging behind, since they experienced no changes over time in adolescent unions in any of the four countries.

Regarding aggregate trends in early childbearing, the proportions ever giving birth during adolescence overall and even earlier (younger than 18) declined in Nicaragua only. At the subgroup level, expected declines occurred in urban areas in Nicaragua and among relatively better-off women in all four countries. Among less-educated women, the large significant increase over time in adolescent childbearing in El Salvador (and in births before 18 in both El Salvador and Honduras) likely reflects the shrinking of this subgroup relative to the general population and the subsequent concentration of early childbearing in these women who became selectively poorer and more traditional over time. The same explanation is probably behind the increases in adolescent childbearing (as measured both before 20 and before 18) among the poorest women in these two countries. Paradoxically, the proportion of Honduran women who became mothers

before age 20 significantly rose among better-educated women. This unexpected finding might signal an especially dire situation in that country in terms of the lack of opportunities other than motherhood for better-educated women.

Why are early first births not changing in tandem with early unions, except in Nicaragua? Part of the answer lies with persistently high levels of unmet need in these countries (Figure 3). Unmet need for effective contraception among married adolescent women who want to postpone a birth but are not using a modern method ranges from 30% in Nicaragua to 50% in Guatemala. Unmet need is so high in Guatemala partly because its large indigenous population is especially unlikely to practice modern contraception, both because of cultural preferences and because many live in underserved, rural and poor areas.

Unsurprisingly, unmet need is even higher among unmarried adolescents who likely encounter the greatest obstacles to accessing services: From 55% of sexually active unmarried adolescents in Honduras to 66% in El Salvador want to delay having a child, but are not using a modern method. (No reliable estimate is available for Guatemalan unmarried adolescents, as there were fewer than 50 such women in the sample.)

These high levels of unmet need often lead to unplanned (mistimed plus unwanted) births, which range from one in three recent births to adolescents in Guatemala to nearly one in two in the other three countries (special tabulations of data from FESAL, 2002/03; from ENSMI, 2002; from ENDESA, 2001; and from ENDESA 05/06). Such unplanned early childbearing appears to have increased sharply over the past few years, especially in Nicaragua. As recently as 1998, for example, 26% of live births to Nicaraguan adolescents in the five years preceding the survey were unplanned (special tabulations of data from the ENDESA, 1998); by 2001, that proportion reached 45% (INEC & MINSA, 2002). Smaller upward trends emerged in El Salvador (from 34% in 1998 (ADS, 2000) to 43% in 2002–2003 (ADS, 2004); in Guatemala (from 24% in 1995 [special tabulations of data from the ENSMI, 1995] to 29% in 2002 [special tabulations of data from the ENSMI, 2002]) and in Honduras (from 40% in 2001 [special tabulations of data from the 2001 ENESF] to 47% in 2005–2006 [special tabulations of data from the 05/06 ENDESA]).

The rate of unplanned adolescent childbearing, a measure that relates the proportion of births that were unplanned to age-specific fertility rates, offers another perspective. The rate of unplanned adolescent fertility increased most in Nicaragua (from 34 per 1,000 15–19-year-old women in 1998 to 54 in 2001 (special tabulations of data from the 1998 and 2001 ENDESA); it rose moderately in El Salvador (special tabulations of data from the 1998 and 02/03 FESAL); and slightly in Guatemala (special tabulations of data from the 1995 and 2002 ENSMI) but that rate actually dropped in Honduras (because the decline in the adolescent fertility rate overtook the decline in the proportion of adolescent births that were unplanned) (special tabulations of data from the 2001 ENESF and the 05/06 ENDESA). In sum, these rates indicate that unplanned births each year to adolescents in these countries—from 33 per 1,000 in Guatemala in 2002 to 54 in Nicaragua in 2001—continue to be unacceptably high.

The missing piece of the fertility puzzle is abortion. These data refer to the extent to which adolescents' recent births, not pregnancies, were unplanned; we lack information on how often adolescents resolve unintended pregnancies through induced abortion. A sizable proportion of adolescents' first pregnancies are unintended, including 41–45% in El Salvador, 35–36% in

Honduras and 26% in Guatemala (Monteith, 2005). (Data are unavailable for Nicaragua.) Resorting to clandestine abortion presents a particularly acute problem in these countries where either all abortions are banned outright (El Salvador, Honduras and Nicaragua) (Center for Reproductive Rights, 2007) or the vast majority are severely legally restricted (Guatemala's penal code technically allows abortions to save the life of the pregnant woman, but such legal procedures are rarely performed) (Guatemala Penal Code, 1973). Given the high rates of complications linked to abortion in these settings (Singh, 2006) and the powerful social stigma attached to abortion in the subregion, the unknown but likely nonnegligible number of adolescents who resort to abortion put their physical and emotional health at risk.

## 5. CONCLUSIONS

The lower proportions of women in adolescent unions over the past two decades in all four countries is encouraging, yet these declines in early marriage have not translated into declines in early first births, except in Nicaragua. This scenario might result from increased pressure and desire to have a child sooner after marriage, an increase in premarital conceptions and perhaps an increase in nonmarital childbearing during adolescence. The only country with anywhere near a sizable level of nonmarital childbearing is El Salvador, at just 9%; the proportion of women who had a child outside of union as an adolescent is still negligible in the other three (4–5%). More research is clearly needed into all these possible explanations, although none of these sensitive topics is easily or readily amenable to investigation.

It is unsurprising that the one country that experienced a decline in adolescent childbearing, Nicaragua, is also the country with the highest current level of modern contraceptive use among married 15–19-year-old women (50% vs. 18–40% in the other three countries) and it likely experienced the greatest increase over the past decade in that measure. Current fertility and contraceptive patterns in all four countries suggest that young women are having more success at postponing a second birth than in delaying the all-important transition to motherhood. Far lower proportions of married adolescent women use a method to prevent a first birth than to postpone a second one, a finding that is consistent with adolescents being much more likely to want to put off having a child in the next two years if they already have one (special tabulations of data from 02/03 FESAL; from 2002 ENSMI; from 2001 ENDESA; and from 05/06 ENDESA).

Unchanging cultural norms likely still solidly support and encourage early unions and childbearing. And given the lack of alternatives for women—especially for better-educated women—other than motherhood, the choice to become a mother as an adolescent is often a logical one (UNFPA & Instituto Nicaragüense de la Mujer, 1999). Yet many adolescents still find themselves pregnant before they are ready to be. Although we lack trend data, that one-quarter to nearly one-half of adolescents' first pregnancies were unintended in 2001–2003 (Monteith, 2005) signals that much more needs to be done to enable young women to act on their reproductive preferences.

Persistently high unmet need for modern methods needs to be addressed among these women, especially those for whom the experience of an adolescent birth increased over time—less-educated women (in El Salvador and Honduras) and the poorest adolescents in all four countries.

These are the adolescent women who likely face the most daunting barriers to obtaining services. To help delay the all-important transition to motherhood, youth-friendly, nonjudgmental and affordable services need to be redirected toward adolescents who have not yet started childbearing. Avoiding early unintended first pregnancies will go a long way toward allowing young women to finish school and better prepare themselves, and their countries, for the future.

## 6. REFERENCES

- Alan Guttmacher Institute, *Into a New World: Young Women's Sexual and Reproductive Lives*, New York: AGI, 1998.
- Asociación Demográfica Salvadoreña (ADS), *Encuesta Nacional de Salud Familiar, Informe Final: FESAL-98*, San Salvador, El Salvador and Atlanta, GA, USA: ADS and CDC, 2000.
- ADS, *Encuesta Nacional de Salud Familiar, FESAL 2002/03*, San Salvador, El Salvador and Atlanta, GA, USA: Asociación Demográfica Salvadoreña and CDC, 2004.
- Bautista-Sabonge K et al., Early childbearing in Honduras: a continuing challenge, *In Brief*, New York: Guttmacher Institute, 2006, No. 4.
- Benaouett R, Background paper prepared for the Education for All Global Monitoring Report, 2006: School Fees, 2007, <[http://portal.unesco.org/education/en/file\\_download.php/8114833f45b654d6b601aef8b4f081e0Bentaouett\\_School\\_fees.doc](http://portal.unesco.org/education/en/file_download.php/8114833f45b654d6b601aef8b4f081e0Bentaouett_School_fees.doc)>, accessed Mar. 10, 2007.
- Blandón L et al., Early childbearing in Nicaragua: a continuing challenge, *In Brief*, New York: Guttmacher Institute, 2006, No. 3.
- Castro Martín T, *Matrimonios sin papeles en Centroamérica: persistencia de un sistema dual de nupcialidad*, 2007, <http://www.ccp.ucr.ac.cr/~icamacho/problemas/castro.doc>, accessed Nov. 16, 2008.
- Center for Reproductive Rights, *Factsheet: The World's Abortion Laws*, May 2007, 2007, <[http://www.reproductiverights.org/pub\\_fac\\_abortion\\_laws.html](http://www.reproductiverights.org/pub_fac_abortion_laws.html)>, accessed July 20, 2007.
- Centro Centroamericano de Población, *Calendario Poblacional*, 2007, <<http://ccp.ucr.ac.cr/>>, accessed Nov. 11, 2008.
- Clark S, Bruce J and Dude A, Protecting young women from HIV/AIDS: the case against child and adolescent marriage, *International Family Planning Perspectives*, 2006, 32(2):79-88.
- Figueroa W et al., Early childbearing in Guatemala: a continuing challenge, *In Brief*, New York: Guttmacher Institute, 2006, No. 5.
- Flórez CE and Núñez J, Teenage childbearing in Latin American Countries, in: Duryea S, Cox Edwards A, and Ureta M, eds., *Critical Decisions at a Critical Age: Adolescents and Young Adults in Latin America*, Washington, DC: Inter-American Development Bank, 2003.

Guatemala Penal Code, Decree No. 17-73 (1973), Article 137, <[http://www.oas.org/juridico/MLA/sp/gtm/sp\\_gtm-int-text-cp.pdf](http://www.oas.org/juridico/MLA/sp/gtm/sp_gtm-int-text-cp.pdf)>, accessed May 24, 2006.

Instituto Nacional de Estadísticas y Censos (INE) and Ministerio de Salud (MINSAL), *Encuesta Nicaragüense de Demografía y Salud*, 2001, Managua, Nicaragua and Calverton, MD: INEC and ORC Macro, 2002.

Instituto Nacional de Estadística (INE), *XI Censo Nacional de Población y VI de Habitación 2002*, Guatemala City, Guatemala: INE, 2003, <[http://www.ine.gob.gt/content/consul\\_2/pob/censo2002.pdf](http://www.ine.gob.gt/content/consul_2/pob/censo2002.pdf)>.

Lloyd CB ed., *Growing Up Global: The Changing Transitions to Adulthood in Developing Countries*, Washington, DC: National Academies Press, 2005.

Machinea JL, Bárcena A and León A, *The Millennium Development Goals: A Latin American and Caribbean Perspective*, Santiago, Chile: Comisión Económica para América Latina y el Caribe, 2005, <<http://www.eclac.cl/cgi-bin/getProd.asp?xml=/publicaciones/xml/0/21540/P21540.xml&xsl=/tpl/p9f.xsl&base=/tpl/top-bottom.xsl>>.

Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., *Encuesta Nacional de Salud Materno Infantil 2002*, Guatemala City, Guatemala: MSPAS, 2003.

Monteith RS, Stupp PW and McCracken SD, *Reproductive, Maternal, and Child Health in Central America: Trends and Challenges Facing Women and Children*, Atlanta, GA, USA: Centers for Disease Control and Prevention (CDC) Division of Reproductive Health and U.S. Agency for International Development (USAID), 2005.

Parrado EA and Tienda M, Women's roles and family formation in Venezuela: new forms of consensual unions?, *Social Biology*, 1997, 44(1-2):1-24.

Secretaría de Salud [Honduras], INE and Macro International, *Honduras: Encuesta Nacional de Demografía y Salud, ENDESA 2005-2006*, Tegucigalpa, Honduras: Secretaría de Salud, INE and Macro International, 2006.

Singh S, Hospital admissions resulting from unsafe abortion: estimates from 13 developing countries, *Lancet*, 2006, 368:1887-1892.

Special tabulations of data from ENDESA (Honduras), 2005-2006.

Special tabulations of data from ENDESA (Nicaragua), 1998.

Special tabulations of data from ENDESA (Nicaragua), 2001.

Special tabulations of data from ENESF (Honduras), 2001.

Special tabulations of data from ENSMI (Guatemala), 1995.

Special tabulations of data from ENSMI (Guatemala), 2002.

Special tabulations of data from FESAL-98 (El Salvador), 1998.

Special tabulations of data from FESAL (El Salvador), 2002/03.

Tomasevski K, *The State of the Right to Education Worldwide, Free or Fee: 2006 Global Report*, 2006, <[http://www.katarinatomasevski.com/images/Global\\_Report.pdf](http://www.katarinatomasevski.com/images/Global_Report.pdf)>, accessed Mar. 10, 2007.

UNFPA and Instituto Nicaragüense de la Mujer, *Qué más podía hacer, sino tener un hijo? Bases socioculturales del embarazo de las adolescentes en Nicaragua*, Managua, Nicaragua: UNFPA and Instituto Nicaraguense de la Mujer, 1999.

United Nations Population Division, *World Population Prospects: The 2006 Revision Population Database*, <<http://esa.un.org/unpp/>>, accessed Apr. 2, 2007.

United Nations Population Division, *World Urbanization Prospects: The 2007 Revision Population Database*, 2008, <<http://esa.un.org/unup/p2k0data.asp>>, accessed Nov. 11, 2008.

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**Table 1. Selected context indicators, by country**

<b>Indicator</b>	<b>El Salvador</b>	<b>Guatemala</b>	<b>Honduras</b>	<b>Nicaragua</b>
(1) Total population (2000, in millions)	6.2	11.2	6.2	5.1
(2) Number of 15-19-year-old women (2000, in thousands)	320	632	349	300
(3) % of total population living in rural areas (2000)	41.6	54.9	55.6	45.3
(4) % of total population living in poverty*	45.5	56.2	71.6	45.8
(5) % of adolescent unions that are consensual (as opposed to legal)	85.6	59.3	90.0	76.9
(6) Adolescent fertility rate (live births per 1,000 15-19 year-old women)	104	114	102	119

\* National per capita annual poverty lines are the following: For El Salvador (2000), 5,286 colones or \$1,290 international dollars adjusting for purchasing power parity (PPP); for Guatemala (2000), 4,318 quetzales or \$1,278 international dollars PPP; for Honduras (2002), 13,178 lempiras or \$2,128 international dollars PPP and for Nicaragua (2001), 5,158 cordobas or \$1,904 international dollars PPP.

Sources: **Rows 1 and 2:** United Nations Population Division, *World Population Prospects: The 2006 Revision Population Database*, <<http://esa.un.org/unpp/index.asp?panel=2>>, accessed Nov. 11, 2008; **Row 3:** United Nations Population Division, *World Urbanization Prospects: The 2007 Revision Population Database*, <<http://esa.un.org/unup/>>, **Row 4:** United Nations Development Programme (UNDP), *Segundo Informe sobre Desarrollo Humano en Centroamérica y Panamá, 2003*, San José, Costa Rica: UNDP, 2003, **Row 5:** Remez L et al, *Ensuring a Healthier Tomorrow in Central America. Protecting the Sexual and Reproductive Health of Today's Youth*, New York: Guttmacher Institute, 2008, Appendix Table 2, <[http://www.guttmacher.org/pubs/2008/06/16/PNG\\_CentralAmerica\\_en.pdf](http://www.guttmacher.org/pubs/2008/06/16/PNG_CentralAmerica_en.pdf)>, accessed August 11, 2008; **Row 6:** El Salvador: 2002-03 FESAL; Guatemala: 2002 ENSMI; Honduras: 2005-06 ENDESA; Nicaragua: 2001 ENDESA.



**Table 2. Changes over time in the proportions of women entering a union during adolescence and having a child during adolescence, overall and within education, residence and socioeconomic subgroups**

Measure	El Salvador		Guatemala		Honduras		Nicaragua	
	40-44 (N=1,067)	20-24 (N=1,914)	40-44 (N=881)	20-24 (N=1,757)	40-44 (N=1,904)	20-24 (N=3,786)	40-44 (N=1,217)	20-24 (N=2,402)
<b>% of women who enter union &lt;20</b>	<b>56.9***</b>	<b>44.6</b>	<b>65.3***</b>	<b>50.3</b>	<b>59.9**</b>	<b>54.4</b>	<b>70.4***</b>	<b>60.1</b>
Urban	50.3*	40.2	55.6***	40.8	52.7*	47.4	65.6***	52.5
Rural	66.6***	50.7	72.9***	56.8	68.6***	62.2	80.0*	73.1
Better-educated	32.1	33.0	36.7*	26.3	30.6	33.3	50.1	43.3
Less-educated	69.1	64.8	73.2*	66.0	69.8	68.6	79.7	79.2
SES								
High	44.7***	28.1	53.4***	31.4	44.7*	36.8	62.0***	45.9
Middle	57.9*	45.0	72.5**	61.3	66.9**	57.6	76.1***	63.0
Low	66.9	59.9	78.4	70.6	68.6	67.9	80.3	79.1
<b>% ever gave birth &lt;20</b>	<b>45.6</b>	<b>42.4</b>	<b>48.9</b>	<b>43.5</b>	<b>48.3</b>	<b>46.4</b>	<b>56.2***</b>	<b>47.9</b>
Urban	43.8	37.4	40.2	35.0	41.6	39.2	51.0***	39.5
Rural	48.3	49.3	55.6	49.2	56.4	54.4	66.3	62.3
Better-educated	28.3	28.9	22.6	21.7	20.3*	26.0	34.6	29.0
Less-educated	54.1**	65.9	56.2	57.7	57.8	60.1	66.0	69.5
SES								
High	38.1*	24.5	41.3**	27.1	33.4	28.7	46.7***	32.0
Middle	51.3*	41.8	51.9	52.2	55.5*	48.1	63.5**	52.4
Low	45.6**	60.0	59.3	62.4	56.5*	61.6	66.1	67.5

**Notes:** Differences over time significant at \* $p < .05$ ; \*\* $p < .01$  and \*\*\* $p < .001$  **Sources:** special tabulations of data from 02/03 FESAL; from 2002 ENSMI; from 2001 ENDESA; and from 05/06 ENDESA.

**Table 3. Recent trends in adolescent fertility rates, numbers of live births to adolescents and numbers of adolescent women, by country**

Country/Year	Adolescent fertility rate (births per 1,000 15-19- year-old women)	No. of live births to women 15-19 (in 000s)	No. of women aged 15- 19 (in 000s)
El Salvador:			
1994	124*	41	331
2002-2003	104	33	321
Guatemala:			
1995	126†	69	550
2002	114†	72	635
Honduras:			
1996	136†	42	307
2005-2006	102†	39	387
Nicaragua:			
1992-1993	158*	34	213
2001	119†	35	298

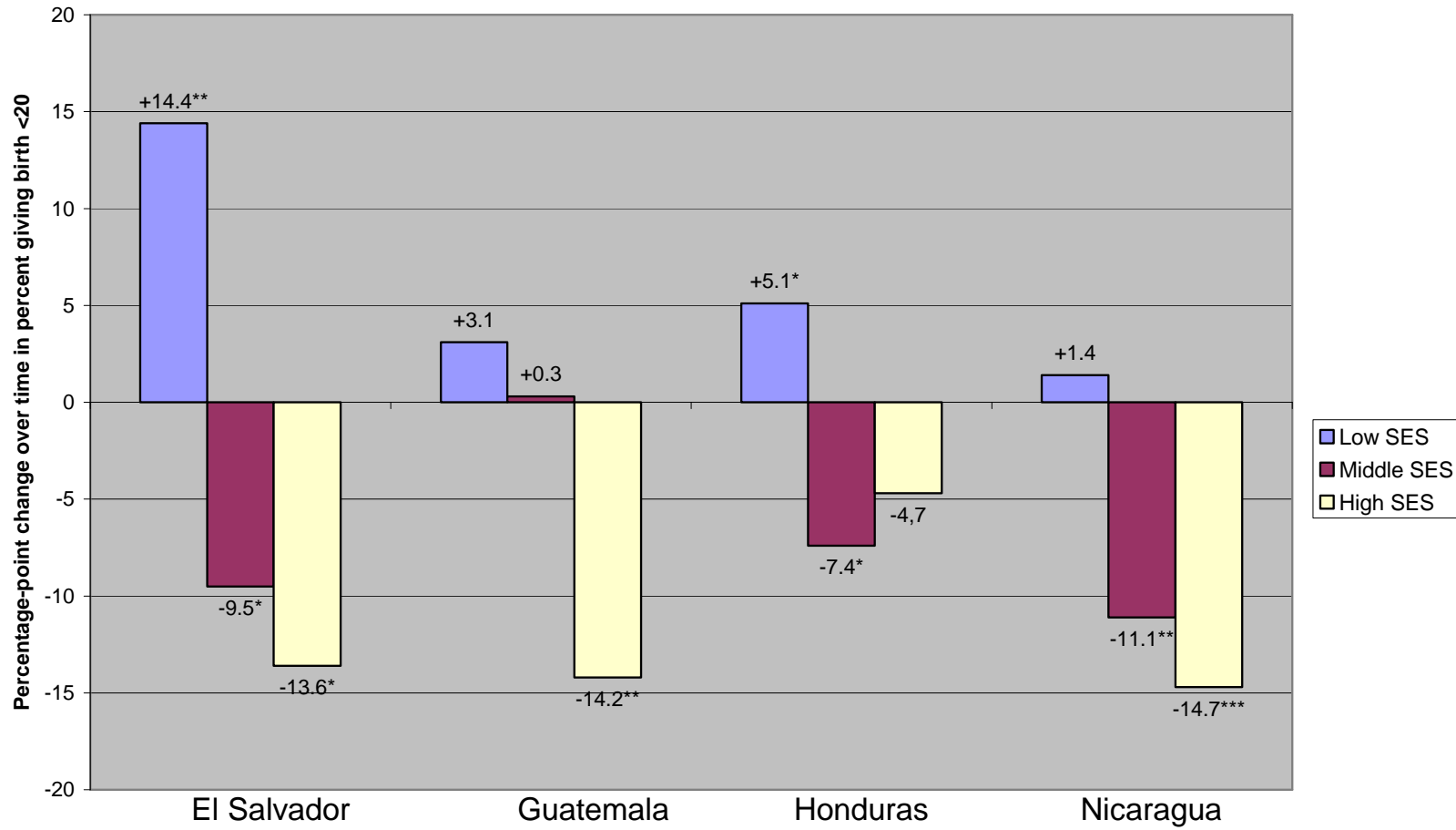
**Notes:** \*Annual rate, based on births that occurred five years before the survey.

†Annual rate, based on births that occurred three years before the survey.

**Sources:** For El Salvador: **Birthrates**—1994 and 2002-03 FESAL; For Guatemala: **Birthrates**—1995 and 2001 ENSMI; For Honduras: **Birthrates**—1996 and 2005-06 ENESF and ENDESA; For Nicaragua:

**Birthrates**—1992-93 and 2001 ENDESA; **Numbers of women**—United Nations (UN), *World Population Prospects: The 2006 Revision* and *World Urbanization Prospects: The 2005 Revision*, <<http://esa.un.org/unpp>>, accessed August 12, 2008.

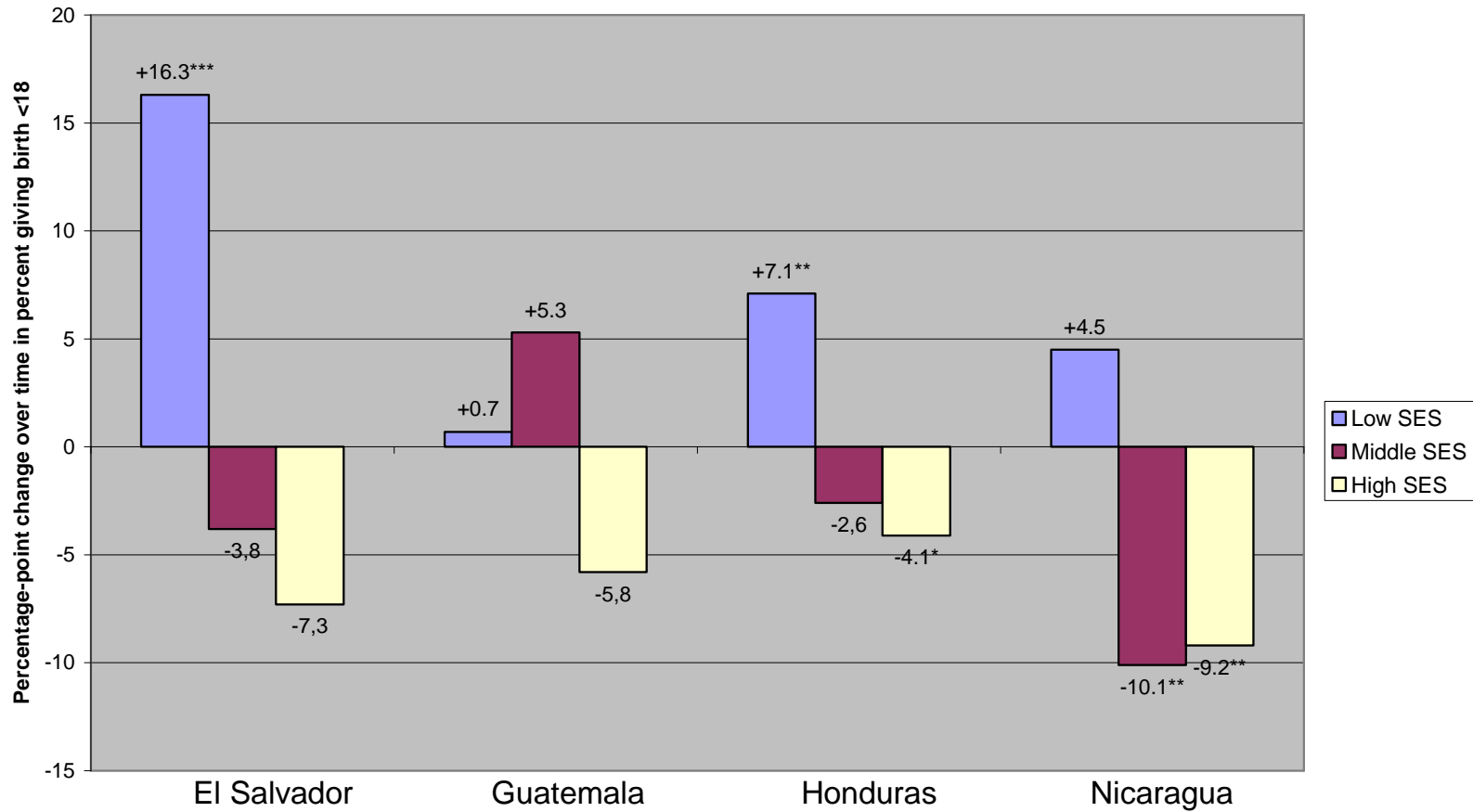
**Figure 1. Poorer women experienced increases in early childbearing, whereas better-off women saw declines.**



Differences over time significant at \* $p < .05$ ; \*\* $p < .01$ ; and \*\*\* $p < .001$

**Sources:** special tabulations of data from 02/03 FESAL; from 2002 ENSMI; from 2001 ENDESA; and from 05/06 ENDESA.

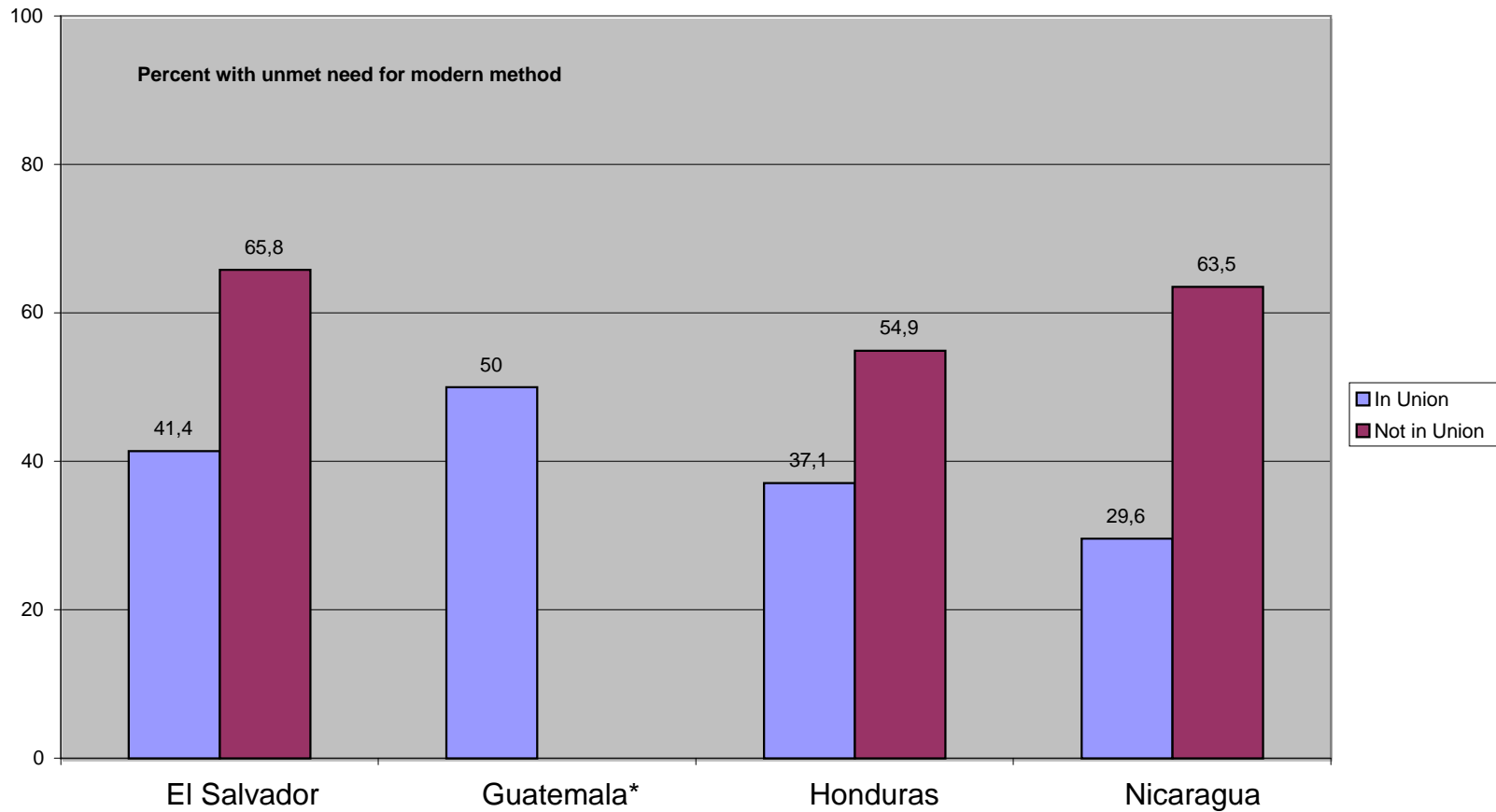
**Figure 2. Broadly similar time trends emerged by socioeconomic status for even earlier births, those before age 18.**



Differences over time significant at \* $p < .05$ ; \*\* $p < .01$ ; and \*\*\* $p < .001$

**Sources:** special tabulations of data from 02/03 FESAL; from 2002 ENSMI; from 2001 ENDESA; and from 05/06 ENDESA.

**Figure 3. Levels of unmet need for effective contraception are unacceptably high, even among married adolescents.**



\*Data not shown because the unweighted N is too small (<25) to be reliable.

**Sources:** special tabulations of data from 02/03 FESAL; from 2002 ENSMI; from 2001 ENDESA; and from 05/06 ENDESA.