# Child Adoption: A Path to Parenthood?

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<sup>\*\*</sup> The views expressed in this paper do not necessarily reflect those of the United Nations. The designations employed do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the status of any country, territory, city or area, or its authorities, or concerning the delimitation of its frontiers or boundaries.

## "Child Adoption: A Path to Parenthood?"

#### **Abstract**

The 1974 World Population Plan of Action encouraged countries, inter alia, to facilitate child adoption, so as to enable couples to achieve their desired family size. Thirty years later, there is the perception that an increasing number of persons are looking for alternative ways of becoming parents, including via adoption. Is this really the case? The paper addresses this question by focusing on national data. Specifically, it examines data compiled by the United Nations Population Division on total, domestic, intercountry and step-parent adoptions for over 100 countries. The data are supplemented by information on national adoption legislation. The paper concludes that although in many countries couples and individuals may be resorting to adoption as a way to experience parenthood other countries do not conform to this pattern. In these countries, adoption cannot simply be viewed as a demographic response. Other factors, including societal norms and personal values may also be at play.

The 1974 World Population Plan of Action of the World Population Conference recommended that all Governments facilitate child adoption, so as to assist involuntary sterile and sub-fecund couples to achieve their desired family size. Implicit in this recommendation was the assumption that adoption could be used as a strategy to approximate biological parenthood, for couples who would otherwise be unable to have children. Thirty years later, the prevailing stereotype is that an increasing number of persons are resorting to alternative means of experiencing parenthood, such as through the adoption process. However, is this really the case? Is adoption viewed as the quintessential solution for childless couples seeking to approximate, emotionally and legally as well as physically, the family they could not produce themselves (Herman, 2002, p. 340)? Furthermore, is adoption a realistic solution for persons who are involuntarily childless and want to have a child? Is this perspective compatible with the principle of the best interests of the child?

This paper addresses these questions mainly by focusing on national data on child adoptions. Specifically, it examines data compiled by the United Nations Population Division on total, domestic and intercountry adoptions for over 100 countries. In addition, some individual-level data from sample surveys and censuses which provide further insight into some of the relationships between demographic factors and adoption are cited. These data are supplemented with information on national legislation regarding child adoption. This paper is based on the forthcoming publication of the United Nations Population Division *Child adoption: trends and policies*.

## I. How widespread is adoption?

The United Nation Population Division (forthcoming a) estimates that out of 923 million women aged 40 years or older worldwide, 71 million are childless. Just over half of these women live in developed countries. Sterility is also relatively widespread. Rutstein and Shah (2004) estimate that one in four evermarried women of reproductive age in developing countries—or more than 186 million women—are infertile. Given these numbers, one would expect that even if a small proportion of all such persons sought to adopt, the number of adoptions would be large. Instead the United Nations Population Division estimates that around 260,000 children are adopted in the world each year. Most of these adoptions are concentrated in a small number of countries. The United States, with over 127,000 adoptions in 2001, accounts for nearly half of all adoptions worldwide. Large numbers of adoptions also take place in China

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<sup>&</sup>lt;sup>1</sup> This review is primarily based on the reports submitted to the Committee on the Rights of the Child by States parties to the 1989 United Nations Convention on the Rights of the Child. Country replies to the questionnaire on the implementation of the Convention on Protection of Children and Co-operation in Respect of Intercountry Adoption as well as other official national sources were also used.

(almost 46,000 in 2001) and the Russian Federation (more than 23,000 in 2001). In relative terms, the number of adoptions is very small. Given the global population of nearly 2.2 billion children under age 18, fewer than 12 children are adopted per 100,000 children under the age of 18 years. The countries with the largest number of adoptions as a proportion of the population under age 18 are Bulgaria, Mongolia, Samoa and the United States.

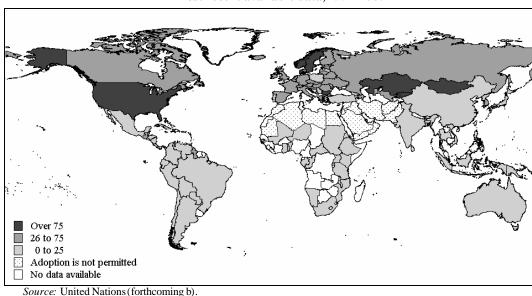


Figure 1. Number of adoptions of children under 18 years of age per 100,000 children under age 18, most recent available data, 1994-2005

Source: United Nations (forthcoming b)

NOTES: The under-five adoption rate is calculated by dividing the total number of adoptions of children under age five by the number of children under age five. On the basis of available data, it is assumed that 60 per cent of children are under age five at the time of adoption. The boundaries shown on the present map do not imply official endorsement or acceptance by the United Nations.

Given the discrepancy between these figures, it is hardly surprising that there is a gap between the number of persons seeking to adopt and the number of adoptions. In Italy, for every local child eligible for adoption there are an estimated 15 couples wishing to adopt. Other countries where the demand for adoptable children exceeds the local supply are Argentina, France, Singapore and the United States. The gap between adoption applications and the number of adoption orders granted is particularly acute in the developing countries. In countries such as Fiji, the Gambia and Guyana, for example, less than 25 per cent of the applications submitted in recent years were approved.

Despite the shortage of local adoptable children, available data indicate that the majority of adoptions worldwide are domestic. Almost 85 per cent of all adoptions are currently undertaken by parents who are residents and citizens of the same country as their adopted children. Domestic adoptions make up 70 per cent or more of all adoptions in some of the countries that register the largest numbers of adoptions such as China, the Russian Federation, the United Kingdom and the United States. The number of domestic

adoptions, however, has been declining in many countries. In Ireland, New Zealand, the United Kingdom and the United States, for example, domestic adoptions have followed an inverted U-shaped curve, rising to reach a peak between the 1960s and the early 1980s and declining thereafter. Domestic adoptions have also been falling in other countries including Australia, Belarus, France, Germany, Latvia, Norway, Poland, Switzerland and Ukraine where data are available only since the late 1980s. At the same time, the number of intercountry adoptions has been rising. From a level of some 20,000 intercountry adoptions annually in the 1980s (Altstein and Simon, 1991), the number rose to nearly 32,000 annually by the end of the 1990s (Selman, 2001) and is estimated at 40,000 annually in recent years by the United Nations Population Division. The United States, where the number of intercountry adoptions more than tripled between 1990 and 2005, provides a striking example in this respect. In 1990, 7,093 foreign children were adopted; by 2005 this number had reached 22,728 (United States, Bureau of Consular Affairs, 2006).

Why have these changes taken place? Several authors have argued that the number of domestic adoptions has dropped as a result of the increasing shortage of adoptable children at the national level. Especially in the more developed regions, the widespread availability of reliable, safe and low cost contraception, as well as of legal abortion (United Nations, 2003a), has meant that fewer women are having unwanted children. In addition, the increased acceptance of single parenthood and the greater availability of welfare support have meant that fewer single mothers relinquish their children for adoption (Gaber and Aldridge, 1994; United States, Child Welfare Information Gateway, 2005). The generally simpler and faster procedures of intercountry adoption compared to domestic adoption are also thought to have been contributing factors.

## II. Who seeks to adopt? Do demographic factors explain the demand for adoption?

The literature provides some support to the notion that adoption is being used as a strategy be approximate biological parenthood by persons who would otherwise be unable to have children. Recent Demographic and Health Surveys (DHS), for example, suggest that women often choose to adopt or foster a child as a way of coping with infertility (Rutstein and Shah, 2004). Data from various rounds of the U.S. National Survey of Family Growth (NSFG) also indicate that greater proportions of childless women or women with impaired fecundity have ever adopted compared to other women (Bachrach, 1983; Bonham, 1977; Chandra and others, 1999). Furthermore, based on data from the 1988 U.S. NSFG, it appears that a woman's propensity to adopt is influenced by the gap between her desired number of children and the number of children she expects to bear and that the larger the discrepancy between the two, the higher the odds of her having ever sought to adopt (Bachrach and others, 1991).

Data on the characteristics of adoptive parents recently compiled by the United Nations Population Division also provide some support to the notion that involuntarily childless persons may be adopting as a way of achieving their desired family size. In Finland and Italy, for example, respectively 80 per cent and 90 per cent of persons who applied for an intercountry adoption had no biological children of their own. In Australia, nearly 60 per cent of children who were adopted during the period 2003-2004 were adopted by parents with no biological children (Australia, Australian Institute of Health and Welfare, 2004).

There are, however, some exceptions. In Ireland, for example, almost 60 per cent of the families that adopted a child domestically in 2003 already had a biological child (Ireland, The Adoption Board, 2004). The proportion of families who had one or more biological children was particularly high among adoptions involving relatives or step-parents. In this case, 80 per cent of adoptive families had a biological child and 5 per cent had both a biological child and an adopted child. Belgium, Israel and the United States also record high proportions of adopted persons living in households that already have children. In the United States, for example, a sample from the 2000 population census reveals that almost 4 per cent of households with children contained at least one adopted child. Of these 1.7 million households, almost 50 per cent had biological as well as adopted children. Less than 4 per cent of these households, on the other hand, contained either adopted and step-children or birth, adopted and step-children (United States Census Bureau, 2003).<sup>2</sup>

Why do persons who already have children decide to adopt? One possible motivation could be to enhance family cohesion. Data compiled by the United Nations Population Division indicate that adoptions by step-parents are fairly widespread and account for approximately one-third of domestic adoptions in countries with relevant data. Another reason might be related to an individual's or a couple's preferences regarding family composition. A person might, for example, wish to adopt a child of a specific sex to balance the sex ratio of the children he or she already has. A person could also decide to adopt as a value choice independently of demographic factors (Feigelman and Silverman, 1979).

## III. Information gleaned from country-level data

Having seen that childlessness, sterility and lower than expected childbearing might in some cases explain why people decide to adopt, it is interesting to see whether these relationships are confirmed by country-level data. For example, is there a relationship between adoption and desired family size? Do countries where large proportions of women want more children than they already have register higher

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<sup>&</sup>lt;sup>2</sup> In census and survey data it is often difficult to establish whether persons already had children at the time of adopting or whether such children were acquired afterwards. There is some evidence that adoption can lead to subsequent births in women who had been childless at the time of adoption (Bachrach and others, 1991; Weinstein, 1968).

levels of adoption relative to their child population? Similarly, to what extent does marital instability relate to adoptions by step-parents? These questions are addressed by comparing adoption rates to various demographic measures (see annex I, II and III) using non-parametric correlation tests (Kedall's Tau and Spearman's Rho). As with any analysis involving correlations, it is not always justified to conclude that factors are directly and causally related.

To examine these relationships, countries were divided into two groups: countries that are primarily receivers of intercountry adoptions and countries that are not major receivers of intercountry adoptions. The first group consists of countries where the majority of intercountry adoptions involve foreign-born children adopted from abroad. This group comprises some 30 countries, among them France, Germany, Spain, the United Kingdom and the United States. The second group comprises countries that are either major countries of origin—that is to say the majority of intercountry adoptions recorded in the country involve children who are adopted abroad—or are countries that do not experience major inflows or outflows of intercountry adoptions. This group includes some 70 countries among them China, Brazil, the Republic of Korea and the Russian Federation. For each of the countries, under-five adoption rates were computed, relating the number of adoptions of children under-five years of age to the population under five.<sup>3</sup> For countries in the first group, the adoption rate was computed by dividing the number of total adoptions, that is to say the sum of domestic and intercountry adoptions, by the child population. For the second group, the domestic under-five adoption rate was used since it offers a better reflection of the local demand for adoption. Because a large number of adoptions involve step-parents, domestic under-five step-parent adoption rates were also computed for all countries for which data were available. In the case of adoption by step-parents no distinction was made between major receiving and non-major receiving countries.

The analysis indicates that for countries that are primarily receivers of intercountry adoption there tends to be little or no relationship between the various measures. None of the indicators selected to test the various hypotheses record a significant relationship with total under-five adoption rates (annex I). Among countries that are not major receivers of intercountry adoption, however, some patterns emerge (annex II). Non-parametric correlation tests, for example, reveal a negative and statistically significant relationship between women who want more children than they already have and the under-five domestic adoption rate (p<0.01). This finding suggests that in countries that are not major destinations of intercountry adoption, the unmet desire for children is predominantly fulfilled through childbearing.

<sup>&</sup>lt;sup>3</sup> The population under five was chosen because approximately 60 per cent of children are aged five years or younger at the time of adoption. This proportion was applied to all countries for which data were available.

On the other hand, there is a positive and significant (p<0.01) association between various measures of the timing of fertility and under-five adoption rates. Higher mean ages at first birth, for example, tend to be associated with higher domestic adoption rates (figure 2). This might be attributable to the fact that the longer a woman waits to have children the less likely she is to achieve her target number biologically, especially if the latter is large. A similar relationship is identified for the female singulate mean age at marriage.

250 <u>2</u> (per 100,000 persons under age 200 Adoption rate 7E-20x<sup>14.895</sup> 150 = 0.4623 100 50 18 20 22 24 26 28 Mean age at first birth

Figure 2. Domestic under-five adoption rate and mean age at first birth in countries that are not major destinations of intercountry adoptions

*Sources*: See United Nations (forthcoming b). For population under age five see United Nations (2004). For mean age at first birth see United Nations (2003b).

NOTE: The data on mean age at first birth refer to the latest available year in the period 1985-2002; data on mean age at first birth and on adoptions do not necessarily refer to the same year.

Strikingly, despite the evidence in the literature, data at the population level recently collected by the United Nations Population Division are equivocal with regard to the relationship between childlessness and adoption. While countries that are not major destinations of intercountry adoptions record positive correlations between the percentage of childless women and under-five adoption rates, these relationships are not statistically significant. It is apparent that, at the population level, the relationship between childlessness and adoption that was evidenced at the micro-level is likely clouded by demographic and non-demographic factors not considered here, such as the widespread use of de facto adoptions and kinship networks. A comparison of domestic under-five adoption rates with data on primary sterility collected from recent DHS surveys (Rutstein and Shah, 2004) also reveals that there is no statistically significant relationship at an aggregate level for countries that are not major receivers of intercountry adoptions. This may be an indication that in many countries, especially in the developing regions, there is

still a strong stigma associated with formal adoption. It may also signify that de facto adoption procedures, which go unrecorded in official statistics, are being chosen to fulfil the unmet desire for children instead of formal adoption mechanisms.

There is, however, a rather strong and statistically significant negative relationship (non-parametric correlation tests, p<0.01) between the average number of children per woman and the domestic under-five adoption rate (figure 3). The fact that countries that have already undergone the transition to lower fertility schedules record higher adoption rates is consistent with the literature on the desired family size. In such countries, the expressed fertility preferences are likely to exceed the observed rate of childbearing as measured by the TFR<sup>4</sup> (Bongaarts, 2001). Because of this, families who wish to achieve their target family size are more likely to resort to alternatives to childbearing, including adoption. At an aggregate level, therefore, such countries are more likely to record higher numbers of adoptions relative to their child population. In contrast, in countries in earlier phases of the transition, observed fertility will tend to exceed the desired family size. Most families will not need to resort to adoption to achieve their expressed fertility preferences and as a result relatively few domestic adoptions will be recorded at an aggregate level.

250

appen supposed 200

y = 131.16x<sup>-2.8574</sup>

R<sup>2</sup> = 0.4984

50

1 3 5 7

Total fertility (per woman)

Figure 3. Domestic under-five adoption rate and total fertility per woman in countries that are not major destinations of intercountry adoptions

 $\it Sources$ : United Nations (forthcoming b). For population under age five and total fertility per woman see United Nations (2004).

NOTES: The data on total fertility per woman refer to the year 2005; the data on total fertility per woman and on adoptions do not necessarily refer to the same year.

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<sup>&</sup>lt;sup>4</sup> In countries where the mean age at first birth has been postponed, as is the case in many societies that have undergone the fertility transitional, period indictors such as total fertility per woman tend to underestimate the actual number of births.

The hypothesis that people seek to adopt as a way of increasing family cohesion in the case of one spouse adopting his or her partner's children as a step-parent does not appear to be substantiated by country-level data (annex III). There is a positive but not statistically significant relationship between indicators of marital disruption and domestic under-five step-parent adoption rates. Some of the countries with relatively high divorce rates or large proportions of divorced persons among the ever-married population do record high rates of domestic adoptions by step-parents. Other countries, however, do not conform to this pattern.

Overall therefore there is some evidence from country-level data that demographic factors are related to adoption rates. However, it is clear that other factors, which have to do with individual preferences and values, may also be at play.

# IV. Is adoption a viable response for persons seeking to become parents?

Given that adoption is, at least to some extent, associated with an unfulfilled desire to bear children, it is foreseeable that an ever increasing number of persons will seek to adopt. Delayed marriage, the postponement of childbearing, increased levels of childlessness and the wider acceptance of new family forms are just some of the factors which are thought to be associated with an ever rising demand for adoptable children. This demand is not only likely to increase in the more developed regions, where the desired fertility often exceeds the observed level of fertility, but also in other parts of the world that are entering into the later stages of the fertility transition.

Is it possible to satisfy an ever increasing demand for adoption? While there is a gap between the number of persons seeking to adopt and the number of adoptions, it appears that there are more children available for adoption than are currently being adopted. There are, for example, large numbers of double orphans who are not being adopted. In many sub-Saharan African countries, including the Central African Republic, Kenya, Malawi, Rwanda, Swaziland and the United Republic of Tanzania, double orphans make up 3 per cent or more of the under-18 population (Joint United Nations Programme on HIV/AIDS, UNICEF and USAID, 2004). Large proportions of double orphans are also found in several Asian countries and in some countries of the Caribbean. Strikingly, many of the countries with the highest rates of orphanhood also have low total under-five adoption rates. Non-parametric correlation tests reveal that this relationship is negative and statistically significant (p<0.01). This counter-intuitive result may be determined by the fact that many of the countries with the highest proportions of orphanhood also favour de facto arrangements instead of formal adoptions. In any event, the comparison between data on orphanhood and adoption reveals that there is the potential for increasing the annual number of adoptions

both domestically and at an intercountry level. In Africa, for instance, it would take over 2,000 times as many domestic adoptions as are currently taking place to find families for the estimated 7.7 million double orphans living in the region. At a global level, the number of adoptions would have to increase by a factor of 60 to absorb the supply of double orphans.

There are also large numbers of children living in foster care and institutions who could be adopted. For most countries, the proportion of children adopted from State care is quite small. Among the 20 countries for which data are available on the stock or flow of children in foster care and institutions, the highest proportion of children exiting State care through adoption is 52 per cent. While not all children in State care have been declared adoptable or would necessarily consent to being adopted, this information does provide an indication that there is the potential for increasing the number of adoptions of children living in foster care and institutions.

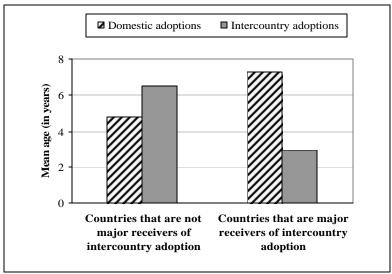
While it may be possible to increase the number of adoptions of double orphans or children living in State care, it is not clear that prospective adoptive parents would be willing to adopt all such children. Prospective adoptive parents, for example, may consider many of them to be too old. Available data for Finland, Italy and the United States confirm that persons tend to have strong preferences regarding the age of children they are seeking to adopt. Age differences between children adopted domestically and through an intercountry procedure provide further evidence of these preferences. In countries of destination, children adopted domestically tend to be older than children adopted through an intercountry procedure. This may be due to prospective adoptive parents' preferences for adopting younger children from abroad as well as the fact that domestic adoptions comprise a larger proportion of step-child adoptions, which usually involve older children. For countries of origin, the opposite tends to be true: children adopted domestically tend to be younger than those adopted through an intercountry procedure (figure 4). The fact that local families are given preference and are therefore able to adopt the youngest children may partially explain this difference.

Adoption laws also need be taken into consideration. As indicated in the United Nations Convention on the Rights of the Child,<sup>5</sup> the best interests of the child is the paramount consideration in all decisions relating to adoption (art. 21). It should be underscored that focusing on the needs of the child does not necessarily imply ignoring the desires of prospective adoptive parents. In many cases the needs of both parties will converge since both will benefit from the creation of loving family ties. Not all countries, however, emphasize adoption as the best approach for dealing with children in need of family care. Nearly 20 countries, for instance, do not make legal provisions for child adoption. Furthermore, even

<sup>&</sup>lt;sup>5</sup> United Nations, *Treaties Series*, vol. 1577, p. 3, No. 27531. Available from http://untreaty.un.org/ (accessed 12 February 2006).

countries that do recognize the institution of adoption often prefer other mechanisms such as de facto adoption or placement with relatives. In New Zealand, for example, adoption is increasingly being viewed as only "one of several ways in which permanent care can be provided for a child" (New Zealand, Law Commission, 1999, p. 28; see also New Zealand Law Commission, 2000). As a result, New Zealand's Care of Children Act of 2004 places more emphasis on maximizing the role of the extended family than on promoting adoption by strangers.

Figure 4. Mean age of children adopted domestically and through an intercountry procedure from countries that are major receivers of intercountry adoption and are not major receiver intercountry adoptions



Source: United Nations (forthcoming b).

NOTE: Data refer to the median value. For countries that are major receivers of intercountry adoption, the median was computed based on data for 10 countries. For countries that are not major receivers, the median was computed based on data for seven countries.

Unlike childbearing, for which there are no explicit legal requirements, most countries limit adoption to persons who meet certain criteria. These criteria are designed to ensure that the adoptive parents are able to satisfy the child's basic physical, emotional and financial needs. Some 100 countries, for example, have regulations limiting the minimum and/or the maximum age at which parents can adopt. The legal form of this stipulation can be traced back to Roman law: adoption should imitate nature, implying that adoptive parents should be of an age at which they could feasibly be the child's biological parents (Wadlington, 1966). Other requirements for prospective adoptive parents instituted by countries relate to their sex, sexual orientation, marital status, citizenship, residency, income, health status, religious affiliation, just to mention a few.

In recent years, pressure from would-be adoptive parents and public opinion has led to a substantial revision of adoption laws. One outcome of this has been that some of the requirements for prospective adoptive parents have been relaxed. In many countries, for example, the age limits for adoptive parents have been expanded. In others, laws have been amended to allow adoption by unmarried persons. Many countries have also removed the requirement that adoptive parents be childlessness. In a few countries, however, the criteria for adoption have become more stringent, as is the case for adoptions by step-parents. The regulations for intercountry adoptions have also been recently tightened by some countries of origin. Because of these limitations, it is clear that adoption is not always an option for persons who are unable or unwilling to have children of their own.

#### V. Conclusions

While it is difficult to identify an overall trend for total adoption, it appears that in many countries the number of domestic adoptions has declined while the number of intercountry adoptions has increased. The dwindling supply of children available for domestic adoption may partially explain the increase in the number of intercountry adoptions. It has been argued, however, that intercountry adoptions have also increased because adoptive parents have sought to adopt children with different characteristics than those available locally. The desire for younger children, for example, may have prompted some parents to adopt children from abroad. The generally simpler and faster procedures regarding international adoption may have also contributed to an increase in this type of adoption.

Some of the commonly held notions regarding why persons seek to adopt appear to be substantiated by available data. It appears that persons who adopt often do not have children of their own. It is also relatively common for persons to adopt their spouse's child, perhaps as a way to increase the cohesion of their new family unit.

Data at the country level provide some evidence of the importance of demographic factors in determining the demand for adoption. Countries with high mean ages at first birth and high singulate mean ages at marriage also have higher under-five adoption rates. Likewise, countries with lower fertility tend to register higher under-five adoption rates. The relationship between childlessness and adoption rates is not statistically significant. These relationships provide an indication that, as in the 1974 World Population Plan of Action, couples and individuals may be resorting to adoption as a way of achieving their ideal number of children. However, the data analyzed by the United Nations Population Division also indicate that many countries did not conform to expected patterns.

In conclusion, while the desire to approximate biological parenthood may be a motivation for adoption in some countries, adoption cannot be viewed simply as a demographic response to achieve the desired family size for involuntary sterile and sub-fecund couples. Other factors, including societal norms and personal values may be at play, leading individuals or couples to adopt. Given these considerations, it may no longer be appropriate to focus on adoption primarily as a path to parenthood for persons who would be otherwise unable to experience it. Perhaps it would be more appropriate to change the way of formulating such questions and focus attention instead on the best ways of identifying stable and loving environments for children deprived of family care.

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ANNEX I. NON-PARAMETRIC CORRELATION TESTS BETWEEN TOTAL UNDER-FIVE ADOPTION RATES AND VARIOUS FERTILITY MEASURES: COUNTRIES THAT ARE MAJOR RECEIVERS OF INTERCOUNTRY ADOPTIONS

Measure	Source	Number of	Kendall	Spearman's
Indicator		countries	Tau	Rho
1. Unmet desire for children				
Per cent of women aged 35 to 39 with no children	FFS	13	-0.205	-0.269
who expect to have at least one more child than they already have				
Per cent of women aged 35 to 39 with one child who	FFS	13	0.179	0.313
expect to have at least one more child than they				
already have			0.004	
Per cent of women aged 35 to 39 with two children	FFS	13	-0.026	0.005
who expect to have at least one more child than they already have				
Per cent of women aged 35 to 39 with three children	FFS	13	0.333	0.440
who expect to have at least one more child than they	113	13	0.555	0.440
already have				
2. Timing of fertility				
Female singulate mean age at first marriage	UNPD	26	0.176	0.215
Mean age at first birth	UNPD	26	0.90	0.111
3. Childlessness				
Per cent childless women aged 35 to 39	UNPD	21	0.200	0.253
Per cent childless women aged 40 to 44	UNPD	20	0.216	0.272
4. Period indicators of fertility				
Total fertility per woman	UNPD	30	0.241	0.309
	UNID		V. <b>2</b> . 1	0.007

*Source*: United Nations (forthcoming b).

NOTES: \* Correlation is significant at the 0.05 level (2-tailed). \*\* Correlation is significant at the 0.01 level (2-tailed).

ANNEX II. NON-PARAMETRIC CORRELATION TESTS BETWEEN DOMESTIC UNDER-FIVE ADOPTION RATES AND VARIOUS FERTILITY MEASURES: COUNTRIES THAT ARE NOT MAJOR RECEIVERS OF INTERCOUNTRY ADOPTIONS

Measure Indicator	Source	Number of countries	Kendall Tau	Spearman's Rho
1. Unmet desire for children				
Per cent of married women aged 15 to 49 who want	DHS	39	-0.304**	-0.413**
another child within two years	2112			
Per cent of married women aged 15 to 49 who want	DHS	39	-0.479**	-0.649**
another child in more than two years				
Per cent of married women aged 15 to 49 who want	DHS	39	0.471**	0.639**
no more children				
Per cent of married women aged 15 to 49 who want	DHS	39	0.442**	0.599**
to end childbearing				
2. Timing of fertility				
Female singulate mean age at first marriage	UNPD	66	0.394**	0.546**
Mean age at first birth	UNPD	56	0.451**	0.648**
Mean age at this onth	ONID	20	0.151	0.010
3. Sterility				
Per cent women aged 35 to 39 who have had sexual	DHS	23	0.016	0.010
intercourse but have never had a birth	2110			
Per cent women aged 40 to 44 who have had sexual	DHS	23	-0.151	-0.211
intercourse but have never had a birth				
Per cent women aged 25 to 49 who have had sexual	DHS	23	0.089	0.081
intercourse but have never had a birth				
4. Childlessness				
Per cent childless women aged 35 to 39	UNPD	63	0.124	0.158
Per cent childless women aged 40 to 44		63	0.110	0.165
1 cr cent childress women aged 40 to 44	UNPD	03	0.110	0.103
5. Period indicators of fertility				
Total fertility per woman	UNPD	69	-0.526**	-0.696**

*Source*: United Nations (forthcoming b).

NOTES: \* Correlation is significant at the 0.05 level (2-tailed). \*\* Correlation is significant at the 0.01 level (2-tailed).

ANNEX III. NON-PARAMETRIC CORRELATION TESTS BETWEEN DOMESTIC UNDER-FIVE STEP-PARENT ADOPTION RATES AND VARIOUS MEASURES OF MARITAL INSTABILITY

Measure Indicator	Source	Number of countries	Kendall Tau	Spearman's Rho
1. Marital dissolution				
Divorce rate (per woman)	UNPD	11	0.382	0.455
Per cent divorced among the ever married population	UNSD	11	0.073	0.150
Per cent marriages in which at least one partner was previously divorced	UNSD	12	0.273	0.406
Per cent marriages in which at least one partner was previously widowed	UNSD	12	0.273	0.385
Per cent divorces involving partners with at least one child from a previous union	UNSD	7	0.048	0.036

Source: United Nations (forthcoming b).

NOTES: \* Correlation is significant at the 0.05 level (2-tailed). \*\* Correlation is significant at the 0.01 level (2-tailed).