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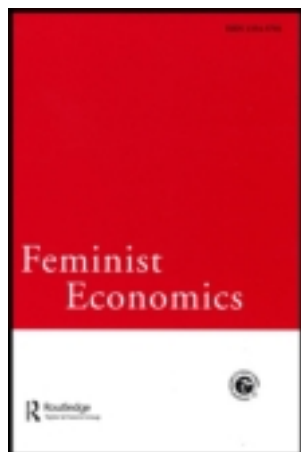
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UNDERSTANDING HUMAN TRAFFICKING ORIGIN: A CROSS-COUNTRY EMPIRICAL ANALYSIS

Smriti Rao and Christina Presenti

ABSTRACT

Feminist work on global human trafficking has highlighted the conceptual difficulty of differentiating between trafficking and migration. This contribution uses a cross-country United Nations Office on Crime and Drugs dataset on human trafficking from 2006 to empirically evaluate the socioeconomic characteristics of high-trafficking origin countries and compare them with patterns that have emerged in the literature on migration. In particular, the authors ask how and how much per capita income and gender inequality matter in shaping patterns of human trafficking. Ordinal logit regressions corrected for sample selection bias show that trafficking has an inverse U-shaped relationship with income per capita, and, controlling for income per capita, trafficking is more likely in countries with higher shares of female-to-male income. These results suggest strong parallels between patterns of trafficking and migration and lead the authors to believe that trafficking cannot be addressed without addressing the drivers of migration.

KEYWORDS

Trafficking, migration, gender

JEL Codes: B54, F22

INTRODUCTION

In the last decade, there has been growing international concern over cross-border human trafficking, particularly the trafficking of women for sex work. While mainstream research on migration initially ignored women, assuming they were following men migrants (Katharine M. Donato, Donna Gabaccia, Jennifer Holdaway, Martin Manalansan IV, and Patricia R. Pessar 2006), in the trafficking literature women are hypervisible. Human trafficking has become synonymous with trafficking for sex work, which primarily involves women and girls; while trafficking for forced labor, which also involves men and boys, continues to be an overlooked component of global human trafficking (Nicola Piper 2005b).

There is now a rich body of feminist work addressing the reasons for this singular focus on sex trafficking and the complex issues of consent and agency that arise in any attempt to understand sex trafficking and its interconnections with migration. While international organizations such as the United Nations (UN) view trafficking as the movement of people across borders accompanied by coercion and considerable human rights violations, the specific differences between trafficking and illegal migration continue to be debated.

Trafficking is often portrayed as a phenomenon distinct from larger streams of migration (Annuska Derks, Roger Henke, and Ly Vanna 2006). One consequence of this portrayal is the sharp contrast between popular and official concern for trafficked persons and far less sympathetic attitudes toward illegal immigrants (Marta Pérez 2012; Tanya Basok and Nicola Piper 2012). Furthermore, because a victim of trafficking, unlike a migrant, is assumed to have been coerced into moving across borders, the solution to trafficking becomes the removal/arrest of traffickers and repatriation of trafficked persons (Nandita Sharma 2005). This particular way of framing the problem shifts attention away from immigration laws in Western host countries and obscures the close links between illegal migration and trafficking to which studies based on primary interviews have pointed. As John Salt (2000) notes, advocacy on trafficking has often run ahead of factual knowledge about trafficking, and there is a strong need for a more systematic empirical picture of the causes and consequences of human trafficking.

Economists have contributed little to the literature on trafficking. Work in the area largely consists of theoretical models (John Salt and Jeremy Stein 1997; Gijbert Van Liemt 2004; Sylvain E. Dessy and Stéphane Pallage 2006; Yuji Tamura 2010). Recent empirical studies have focused on the well-being and rights violations of sexually trafficked women (Maria L. Di Tommaso, Isilda Shima, Steinar Strøm, and Francesca Bettio 2009; Francesca Bettio and Tushar K. Nandi 2010), and they have commented on the relationship between prostitution laws and trafficking in destination countries (Niklas Jakobsson and Andreas Kotsadam 2010).

The importance of exploitation and coercion in the trafficking literature is one possible explanation for the relative absence of economic literature in this area. As feminist critiques of the economics orthodoxy have shown, the methodology of mainstream economics struggles to handle questions of power and its abuse. Another explanation for the relative absence of economics literature on trafficking lies in the lack of reliable data. Most studies of trafficking are based upon small samples of primary interviews with victims of trafficking and the analysis of court cases and police and news reports, with, as Di Tommaso et al. (2009) point out, problems relating to selection bias and the lack of a control group.

Our study takes a macro approach and evaluates the empirical case for treating trafficking as distinct from illegal migration at the cross-country

level. Using a UN dataset on trafficking origin, we identify the socioeconomic characteristics of countries that have a higher incidence of international human trafficking origin. In particular, we ask how and how much economic development and gender inequality matter in shaping patterns of human trafficking origin and whether these patterns are different from those observed in the literature on migration. Our results imply that it is difficult to empirically distinguish between trafficking and migration, suggesting that the problem of trafficking is unlikely to be solved without addressing the drivers of international migration.

The UN dataset we use counts only instances of trafficking across international borders, thus excluding internal trafficking. As explained later in this contribution, the UN database also uses an unusual methodology to get around the problem of trying to document an illegal activity. This methodology relies considerably on academic, government, and media reports of trafficking and generates a possible sample selection bias that we attempt to account for. Finally, these source reports largely focus on the trafficking of women for the sex trade. Only 28 percent of these source reports mention trafficking for forced labor, while 87 percent mention the sexual trafficking of women (United Nations Office on Drugs and Crime [UNODC] 2006). Any patterns uncovered are thus likely to explain the vulnerability of women rather than men, and shed more light on the determinants of sexual trafficking rather than trafficking for forced labor, shaping our study's focus on the former.

THE LITERATURE ON TRAFFICKING

Popular as well as academic concern about human trafficking has increased since the early 1990s, even as the definition of trafficking has changed considerably. In 1994, the International Organization for Migration (IOM) defined human trafficking as “the facilitation for money of largely voluntary illegal migration,” a definition that today would better fit the term “human smuggling” (Frank Laczko 2005: 10). Human trafficking has instead come to mean a coercive and exploitative “forced” crossing of international borders. As famously defined by the UN Palermo Protocol:

Trafficking in persons shall mean the recruitment, transportation, transfer, harboring or receipt of persons, *by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability*, or of the giving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. (UNODC 2006: 50; emphasis added)

Of course, if human smuggling is only “largely voluntary,” then the difference between trafficking and illegal migration facilitated by human smugglers is only one of the degree of abuse. As several studies point out, even legal migration sometimes involves deception and legal violations on the part of both migrants and those who serve as migration agents (see International Labour Organization [ILO; 2004]; Laura Agustín [2005] for Latin America and the European Union; Rutvica Andrijasevic [2007] for the European Union). The literature on trafficking suggests that in the case of migration, any abuse and exploitation is expected to end once the migrant has arrived at the destination, while in the case of trafficking it continues (see Derks, Henke, and Vanna [2006] for Cambodia). The distinction is tenuous, and, more importantly, it may not always be useful to preserve from a migrant rights perspective.

The emphasis on coercion and exploitation in the Palermo Protocol’s definition of trafficking provides activists and governments working against human trafficking wide leeway to prosecute human traffickers. At the same time, critics of the Palermo Protocol argue that it subsumes almost every kind of illegal migration under trafficking and thus is subject to anti-trafficking laws (Ann Jordan 2002; Bridget Anderson and Julia O’Connell Davidson 2004). In particular, critics stress, almost every illegal migrant who engages in sex work could be considered trafficked under this definition (Jo Doezema 2002). The considerable feminist literature on trafficking is centered upon these tricky issues of consent versus coercion in sex work and the fine line between trafficking and migration.

The feminist debate over trafficking

In sharp contrast to the literature on migration, women have been the focus of trafficking studies from the very beginning. Laczko (2005) found that 50 percent of the literature addresses the trafficking of women and girls, a fact that is reflected in the predominance of information about the trafficking of women in the UN database we use for this study. Much of the political mobilization around trafficking, including by religious and politically conservative groups in the United States, has also focused on sex trafficking. For instance, the very first US congressional hearings on trafficking in 1999 were exclusively about sex trafficking, and the prevention of sex trafficking was the primary motivation for the passage of the 2000 US law against trafficking (Barbara Ann Stolz 2007).

Basok and Piper (2012) argue that in the case of international rights organizations such as IOM in Latin America and the Caribbean, the resources dedicated to solving the problem of trafficking are in sharp contrast to the meager programmatic support for migrants more generally. Pérez (2012) also emphasizes the extent to which sex trafficking in Spain differentiates “true victims” from the broad mass of “illegal aliens” in the

eyes of Spanish judges and policemen, and the considerably differing degree of sympathy accorded to the former by a deliberately capricious law-enforcement apparatus. This interest in and concern for trafficked women in the West stands in stark contrast to often-hostile attitudes toward illegal immigrants (Sharma 2005).

The focus on the sex trafficking of women and girls could be understood as a response to the fact that the majority of human trafficking is, indeed, for sex work. However, estimating the volume of international trafficking has proven difficult, and it is not clear that the popular press is responding to the preponderance of such cases among trafficking cases overall (Jayati Ghosh 2009). Many researchers point out that trafficking for forced labor, which also involves men and boys, is an important and overlooked component of the global trafficking business (see Piper [2005b] for a discussion). It appears that popular representations of legal and illegal migration usually involve men, with women appearing when the discussion turns to victims of sex trafficking (Derks, Henke, and Vanna 2006).

None of this is to deny that sex trafficking does, in fact, violate the human rights of thousands of women, men, girls, and boys. Indeed the trade in human beings highlights continuing inequalities between the mobile rich and the immobile poor and between capital and labor. Nevertheless, there is a debate over trafficking – not over whether there are women, men, and children whose travel across borders would meet the Palermo definition of trafficking; but rather, over three related issues.

The first issue concerns how trafficked persons are perceived and whether they are seen as victims or seen as exercising (an admittedly limited) agency. A second aspect of this debate centers on how traffickers are perceived: are they cast as criminals (often as members of mafia groups) whose illegal activities are the root of the problem? Or are they seen as actors in a larger tragedy, profiting from human desperation, but less essential to understanding the phenomenon of trafficking than the prevailing legal regime that governs immigration? The third contested issue is the solution to the problem of trafficking that emerges depending on the framing of the first two issues – that is, whether the solution is the removal/arrest of traffickers and the repatriation of trafficked persons; or the transformation of immigration laws and efforts to address global inequalities.

As Kamala Kempadoo (2005) points out, the current state of popular conversation about trafficking resembles the nineteenth-century “moral panic” (p. vii) over the “white slave trade” (p. x) in Western Europe and the United States. There, too, the idea of women (in that case, white and European or North American) being trapped into sex by male traffickers (primarily Asian, at the time) became the subject of public outcry and ultimately led to the first international treaties against trafficking. This moral panic was fuelled both by opposition to prostitution per se and by a

fear of miscegenation. These themes do recur, although in somewhat different ways, in the current debates over trafficking for sex work.

The attempt to define and fight human trafficking has revived older feminist debates over consent and agency in sex work (Doezema 2002; Jordan 2002). For those feminists who believe that the act of selling sex cannot really be voluntary, migrant women in prostitution are coerced; and to the extent that coercion is an important element of the definition of trafficking, such women are indeed trafficked. The campaign against trafficking, for “abolitionist” feminists, as Kathy Miriam (2005: 1) refers to them, is also a campaign against prostitution as an industry (see Donna M. Hughes [2000] for Ukraine). For others, it is important to find a way to separate the definition of trafficking from sex work and prostitution, and to leave room in the definition for the possibility of a voluntary performance of sex work (Kempadoo [2005] for Asia).

It also appears that to the extent that most illegal migrants in the sex industry are subsumed under the Palermo Protocol’s definition of trafficking, the problem becomes individual traffickers or gangs of traffickers cast as the primary violators of human rights, rather than immigration laws in Western host countries that selectively deny mobility to those who are not rich or highly skilled. The most common solution to the problem of trafficking that emerges within this paradigm is to eliminate trafficking networks and free trafficked women, in the proponents’ discourse (Hughes [2000] for Ukraine; Donna M. Hughes and Janice G. Raymond [2001] for the US).

From the perspective of governments, however, freeing these women and men overwhelmingly means deporting them back home. In both the US and Canada, for example, the overwhelming majority of trafficking victims applying for visas under special legal exceptions have been denied permission to stay (Sharma 2005). To the extent that such accounts of trafficking focus on the mostly nonwhite, foreign individuals and groups who traffic, critics argue that they also feed into latent racism in the popular press, with the anti-trafficking campaign becoming yet another in which the white man (or woman) saves the brown woman from the brown man (Doezema 2002).

On the other hand, in arguing that trafficked persons have, in some sense, made a choice to leave their home countries, if not the oppressive conditions of their work at the destination, those who stress the agency of trafficked persons argue that their choice must be respected and that neither the elimination of particular trafficking networks nor the repatriation of trafficked women does much to address the underlying issues. Instead, such authors often turn their attention to reforming immigration regimes (Kempadoo 2005; Andrijasevic 2007).

While this contribution does not address the controversy over sex work, a broader issue at the core of this debate is the extent to which we should preserve the line between voluntary illegal migration and an involuntary act

of trafficking. The reality on the ground, as the migration literature shows us, is that illegal (and legal) migrants pay agents, who are often involved in acts of deception and violations of human rights (ILO 2004; Van Liemt 2004; Derks, Henke, and Vanna 2006). Illegal migrants are transported across borders under terrible conditions, and money is extorted from them along the way (United Nations Development Programme [UNDP] 2009). However, as Rutvica Andrijasevic (2003) found in her interviews with Eastern European trafficked women, those abused and exploited in this manner may nevertheless see the crossing of the border as a voluntary act and ultimately view the agents who facilitate this crossing as allies against hostile host country governments and law enforcement agencies.

There might then be a case for subsuming all forms of nonlegal movement under a single category of “trafficking-like practices” (Elizabeth Kelly 2005: 238), which would encompass differing degrees of human rights violations and constitute “alternative circuits of survival” (Saskia Sassen 2003: 267) and exploitation that include both illegal migrants and those who would fit the Palermo Protocol’s definition of trafficked persons. The choice of the phrase “trafficking-like practices” to describe this continuum is an acknowledgment of the currency that the term trafficking has gained. However, we realize that the term trafficking should be reappropriated not just to address women’s rights, but to highlight the labor and migrant rights violations that states commit as well.

For those worried that failing to separate out trafficking glosses over the more extreme human rights violations involved, we argue that the use of the term “trafficking-like” only further emphasizes the importance of human rights by including in our concern for the rights of trafficked persons the rights of those forced to migrate illegally as well (Piper 2005b).

AN EMPIRICAL APPROACH TO THE TRAFFICKING DEBATE

The literature on trafficking within economics is not extensive and largely includes theoretical contributions. These include a model of trafficking as a profit-maximizing endeavor (Salt and Stein 1997); a model describing the supply side for child trafficking (Dessy and Pallage 2006); and a model suggesting trade-offs made by governments attempting to regulate trafficking (Tamura 2010). Interestingly, in each case the authors assume substantial overlap between forms of illegal migration and trafficking, but in each case data limitations prevent empirical applications.

More recently, economists have undertaken empirical studies of trafficking using aspects of the UNODC dataset that we employ in this paper. Jakobsson and Kotsadam (2010) use the UNODC data on trafficking destinations in Europe and find that European countries are more likely to become trafficking destinations if they adopt more liberal prostitution laws. Di Tommaso et al. (2009) use UNODC’s micro-level interviews with

trafficking victims to examine the well-being deprivation of trafficking victims and factors that might help alleviate this deprivation. We draw upon their findings at various points below. Bettio and Nandi (2010) use the same dataset to find determinants of the extent to which trafficked women's rights are violated. They find that whereas being educated did not imply less abusive treatment, victims from better-off families reported fewer rights violations.

Our interest is in examining cross-country patterns of trafficking origin to examine how similar or different they are from patterns of migrant origin. The fact that there was little work on women's migration until recently means that we do not know quite as much about patterns of women migrants' origins as we would like (Donato et al. 2006). Mainstream economics, in particular, has paid little attention to the economic migration of women. A recent influential review of the migration literature in economics had one sentence pointing out the feminized nature of migration flows to the West, but no other mention of the words "women" or "gender" (Richard Freeman 2006).

We nevertheless argue that an attempt to validate an exclusively trafficking approach could begin by testing two assumptions about trafficking origin considered to be pervasive by authors who otherwise differ on trafficking issues (Elizabeth Kelly [2002] for Europe; Kempadoo [2005] for Asia; Piper [2005b]). First, that poverty makes women more susceptible to being trafficked; second, that women in countries with more severe forms of gender discrimination are more likely to be trafficked.

Income, poverty, and trafficking

Poverty is cited throughout the trafficking literature to explain why parents may sell their children to traffickers or why men and women decide to migrate illegally and risk being trafficked (Ivana Travnickova [2004] for the Czech Republic; ActionAid [2005] for Vietnam). Bettio and Nandi (2010) find evidence that the poorest families are most likely to sell women to traffickers. In the case where an attempt to migrate turns into trafficking, the lower the income of the family or individual, the lower the opportunity cost of migration. Furthermore, the lower the income of the country or region of origin, the lower the future expected stream of income from remaining in that country or region. Ideally, one would use the ratios of income streams in origin and destination country to indicate the extent of economic push and pull factors, but in our case the UNODC data we use does not link origin and destination points for specific instances of trafficking. As a result, this study focuses exclusively on factors that are local to the origin country.

The migration literature, however, suggests that the relationship between poverty and migration is not positive but negative. The cost of migration – including payments to agents and travel costs – has long been

seen as a deterrent to the migration of the poorest (Nicola Piper [2005a] for Southeast Asia and Oceania; Freeman [2006]). Tightened legal restrictions have only exacerbated the problem, so that migration no longer helps bring about economic convergence in the way that it did for Europe in the nineteenth and early twentieth centuries (Timothy J. Hatton and Jeffrey G. Williamson 2003). Meanwhile, the very rich are free to move, but have fewer incentives to migrate.

At the micro level, this suggests that the incomes of the originating households of migrants lie in the middle of the origin country's income distribution scale. As the 2009 United Nations Human Development Report (UNHDR) points out, there is a macro-level implication here too (UNDP 2009). At the cross-country level, migration streams today are the greatest from middle-income countries and display an inverse U-shaped relationship with the country's income per capita, with the poorest unable to afford migration and the richest less likely to be interested in moving (Barry R. Chiswick and Timothy J. Hatton 2002; Hatton and Williamson 2003; Freeman 2006; UNDP 2009). If the drivers of human trafficking and migration are similar, we would expect to see the same relationship for trafficking.

Furthermore, as discussed below, patterns of demand in both the sex and forced labor industries require social skills that most in the poorest countries are unlikely to possess. Instead, as Sassen (2003) points out, in many developing countries those who are able to leave legally do so; the less fortunate become part of alternative circuits of survival and exploitation, such as illegal migration and trafficking. The tragedy is that even these alternative circuits act to exclude, with some of the world's poorest people immobilized by the intersection of their poverty and the current global immigration regime.

IOM interviews with trafficked women, analyzed by Di Tommaso et al. (2009), bear out these hypotheses. The interviewees were almost entirely from Eastern Europe, so they were already from a relatively middle-income region with higher levels of women's education and labor force participation in urban labor markets than in many other regions of the world. Within that context, Di Tommaso et al. (2009) found some interesting characteristics among trafficked women. First, 85 percent were promised jobs outside the sex industry. They were potential economic migrants for the most part. Furthermore, while 20 percent reported coming from very poor families, 79 percent came from poor or middle-income families and only 0.2 percent reported coming from well-off families (Di Tommaso et al. 2009).

One of our questions was whether trafficking patterns at the macro level seemed to mirror this pattern or substantially deviate from it. While we use the Purchasing Power Parity (PPP) Gross Domestic Product (GDP) per capita as the primary measure of income, we also control for the level of

absolute poverty within a country. Given that we need a measure of poverty that is comparable across countries, we use the headcount ratio of poverty based on a US2\$/day (PPP) poverty line. Poverty measures were not available for several developing countries in our sample, so we report results both with and without the headcount ratio.

Gendering the determinants of trafficking

One obvious difference between migration and trafficking is the preponderance of documented victimized women and girls in the latter case. This means that the role of gender inequality in generating trafficking has been the subject of some discussion. The assumption is often that gender inequality serves as a push factor, increasing the level of trafficking. Thus, for example, Kelly (2005) concludes:

The layers of connections between trafficking and gender inequality point to the need for more dialogue and cross-fertilization between research on trafficking, on the one hand, and gender/feminist studies on the other. Of particular interest here is the uneven progress within Europe (and also globally) *where trafficking flows are from regions where women's political and socio-economic position has declined and patriarchal traditions remain entrenched, to those with a higher degree of formal gender equality.* (p. 25; emphasis added)

From an economic perspective, there are two possible mechanisms underlying this assumption. If trafficking victims are a subset of economic migrant women, their decision to migrate would be affected by expected future streams of income for paid women workers in particular, which is partly a function of the extent of gender inequality in origin country labor markets. A second possibility is that fewer economic opportunities for women in a region could result in the greater devaluation of women, and thus, their “sale” to traffickers (Kelly [2005] for Europe; Bettio and Nandi [2010] for Eastern Europe).

While the second possibility is specific to trafficking, the first has not been analyzed as much within the migration literature, in part because work on economic migrant women traveling alone is so recent. There is a large body of evidence showing that women are more economically vulnerable in more gender-unequal societies, with higher unemployment rates, lower wages, less occupational choice, and less control over earnings (Noeleen Heyzer 2002). In more patriarchal societies, women may also be more affected by conflict and broader social and economic dislocation (UNDP 2009). The prospect of finding a job abroad, however risky the means, is thus likely to become more attractive (Travnickova [2004] for the Czech Republic).

Background research for the 2009 UNHCR on migration showed that migrants in general were on average more educated (and more likely to be of working age) than the general populations in their home countries (UNDP 2009). What we know from the many micro-level studies of women migrants suggests that such women largely work in the care sector in the West and, given the nature of demand in such sectors, are relatively well educated and likely to have participated in urban or semi-urban labor force in their home countries (Rhacel S. Parreñas [2001] for the Philippines; Barbara Ehrenreich and Arlie Russell Hochschild 2003). Pools of such women would be more available in countries with higher levels of economic and educational attainment for women. Micro-level studies of trafficked women suggest similar patterns, as we discuss below.

Indeed, in many gender-unequal countries women face considerable legal and cultural barriers to mobility. In such societies, women are discouraged from traveling alone, and a woman leaving the country unescorted by a man who is a family member would violate local codes of morality. While severely decreasing a woman's freedom and autonomy, such curbs on women's movements do have the effect of lowering the likelihood that they will migrate alone, and thus, that they will be trafficked (Anderson and Davidson 2004; Ghosh 2009). As Sondra Hausner (2005) explains, in Nepal curbs on women's movements have been codified into law, and one of the potential impacts of this regressive law seems to be decreased instances of the trafficking of women.

More importantly, due to the structure of demand in host countries, higher levels of female labor force participation and education may actually be correlated with higher incidence of trafficking. Employers within service industries such as housework and sex work seek less easily defined sociocultural attributes, such as "genteelness" or "cleanliness," which become associated not just with particular ethnic groups but also with formal education and a level of acculturation to Western notions of clothing or hygiene that can only be found among the middle and upper middle classes in the developing world (Ehrenreich and Hochschild 2003). In sex work, these demands extend to meeting racialized definitions of beauty in the host country, which may be one reason why Eastern European women form a large percentage of sex trafficking victims in the US and Europe (Anderson and Davidson 2004).

The profile of trafficked women that emerges from primary interviews suggests that it is at least somewhat educated women already in the labor force who tend to be trafficked to the West (Salt 2000; Van Liemt 2004; Augustin 2005). Furthermore, if the decision to leave illegally is the result of an aspiration for a better life, then women who engage in paid work and have high economic and/or noneconomic expectations are the ones who are likely to leave (Augustin 2005). To the extent that these economic aspirations are also a function of broader societal support for women, lower

gender wage and labor force participation gaps within a developing country may actually encourage greater out-migration of women, and thus increase the risk of being trafficked. For the same reason, women's ability to access education and healthcare could also be positively related to trafficking incidence.

In the study of Eastern European trafficking victims by Di Tommaso et al. (2009), the vast majority of trafficking victims interviewed were already in the workforce in their home countries, with only 1.6 percent working in agriculture. Furthermore, they point to a surprisingly high level of education among the women, with a "nonnegligible" 25 percent reporting having completed high school and 6 percent having college degrees. Only 2 percent reported having no education at all (Di Tommaso et al. 2009: 148).

In our study, we use the ratio of female–male income as computed in the UNDP's 2005 *Human Development Report* as an indicator of expected streams of income for women, controlling for the overall income per capita in the country. The UN calculates the female–male income ratio based upon the ratio of female–male labor force participation in a country, as well as available information on urban wage gaps in that country. As a result, this indicator combines information on work and earnings – both relevant to calculations of expected future income in the origin country, but largely in the context of the urban economy. We do note that poorer countries tend to be penalized in the calculation of this indicator, so that it is important to control for income per capita (Stephan Klasen 2006). As measures of more general level of support for women's well-being, we use the ratio of female–male literacy, and the ratio of female–male life expectancy. Influenced by the literature on missing women, we also include the sex ratio (girls–boys) for the population ages 15 and under (migration itself may skew the sex ratios for the population over age 15).

As indicated in Table 1, the sex ratio and the ratios of female–male life expectancy and literacy are correlated both to each other and to GDP per capita. However, the share of female–male income is not correlated with any of these indicators. Thus, despite its limitations it might be the most robust indicator of gender inequality in our particular study (Klasen 2006). Other measures of gender inequality, for example those used in the Gender Empowerment Measure (GEM), contain some components that are unavailable for a large number of countries in our sample and could not be used.

These cross-country measures of gender inequality are, of course, relatively blunt. For the most part, they capture only what Deniz Kandiyoti (1999) calls "classic patriarchy," which includes patrilocal-patrilineal kinship structures; little effective claim on property for women; and the societal devaluation of women's paid work. The emphasis, as with current cross-country measures, is on gender discrimination as a lack of autonomy or economic independence. As Kandiyoti (1999) suggests, an alternative metric might privilege the

Table 1 Correlation coefficients for income and gender inequality measures

	(ln) GDP/capita	Sex ratio (age 15 and under)	Ratio of female–male literacy rate	Ratio of female–male life expectancy
Sex ratio (age 15 and under)	0.46***			
Ratio of female–male literacy rate	0.61***	0.42***		
Ratio of female–male life expectancy	0.33***	0.25***	0.43***	
Ratio of female–male income	-0.07	-0.05	0.02	0.05

Note. ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels, respectively.

attainment of economic security for women (which may or may not go along with greater economic autonomy). The feminist emphasis on social provisioning reflects this different view of empowerment (Marilyn Power 2004). As Piper (2005b) argues, such an alternative view would also integrate feminist work on trafficking into a broader paradigm privileging human security in all its dimensions. However, cross-country measures of the social-provisioning view of empowerment are not as easily available, particularly for developing countries; so for now, we use more conventional and widely available indicators of gender inequalities.

To summarize, then, given the patterns of demand in industries where trafficked women are concentrated and the considerable costs of movement imposed by immigration regimes, our hypothesis is that gender inequality may actually be negatively correlated with trafficking origin. This would once again indicate more, rather than less, overlap between migration and trafficking.

DESCRIPTION OF THE DATASET

UNODC’s report, *Trafficking in Persons: Global Patterns*, notes that within the trafficking literature, “what is missing is a reliable global overview,” and it points to “patchy statistics” that hide the severity of the problem (2006: 11). The UNODC report is an attempt to quantify the scale of the problem globally while avoiding the pitfalls of estimating actual numerical flows of trafficked persons across borders.

Rather than estimate actual numbers of trafficked humans from/in each country, UNODC researchers searched over 4,950 accounts of trafficking victims from newspapers, NGO reports, and official government reports, totaling 113 different individual source institutions, covering the period 1996–2003. There are three links in the trafficking supply chain: origin,

transit, and destination. The researchers counted the number of times a country was cited as an origin country for one or more victims, the number of times it was cited as a transit country, and the number of times it was cited as a destination country. Within each of these three categories, a country was classified on a scale of severity from very low to very high. Based on the level of citations, for each such link in the trafficking supply chain the country was then ranked very low through very high. At the end of the process, the report yielded trafficking origin rankings for 127 countries (UNODC 2006).

One potential limitation of the UNODC data is that frequency of citations determines the ranking of a country. However, the report is still the most carefully constructed and comprehensive database on trafficking currently available from a relatively neutral source.¹ As mentioned earlier, the database tracks sex trafficking better than other forms of trafficking and does not address the issue of internal trafficking. There is also potential geographical (and also perhaps cultural) bias in the dataset, given that almost 60 percent of the sources are based in Western Europe or North America. We try to take account of this potential bias in our analysis by using the Heckman correction method for sample selection bias.

Description of the dependent variable

We test two primary hypotheses in order to determine the empirical justification for treating migration and trafficking as distinct phenomena: (1) whether trafficking is associated with higher levels of gender inequality in trafficking origin countries and (2) whether trafficking originates in the poorest countries. Due to data problems, we only include 118 of the 127 countries in the UNODC dataset in our final analysis of trafficking origin.

The UNODC database suggests that countries in Eastern European and states from the Commonwealth of Independent States (CIS), along with China and Thailand, are notable origin points for international trafficking (Table 2). Putting together the very high and high categories further reinforces the fact that, based on UN definitions and methodology, Eurasia is the primary source region for international trafficking. This is a result that will be familiar to those who follow the migration literature (UNDP 2009). In another similarity to the literature on migration, despite relatively high levels of poverty in Africa, very few African countries feature in this UN trafficking database. These alternative circuits of survival and exploitation thus exclude in ways similar to their more mainstream counterparts.

Description of the independent variables

We draw our independent variables primarily from UN sources – UNDP's (2005) *Human Development Report* being the most important (see Table 3 for

Table 2 Countries ranked by incidence of trafficking origin

1 (very low)	2	3	4	5 (very high)
Brunei Darussalam	Argentina	Algeria	Armenia	Albania
Chad	Bhutan	Angola	Bangladesh	Belarus
Chile	Botswana	Azerbaijan	Benin	Bulgaria
Costa Rica	Burundi	Bosnia and Herzegovina	Brazil	China
Egypt	Canada	Burkina Faso	Cambodia	Lithuania
Fiji	Cape Verde	Cameroon	Colombia	Moldova, Rep. of
Jamaica	Congo, Dem. Rep. of the	Congo	Czech Republic	Nigeria
Paraguay	Djibouti	Cote d'Ivoire	Dominican Republic	Romania
Syrian Arab Republic	Equatorial Guinea	Croatia	Estonia	Russian Federation
Uruguay	Eritrea	Cuba	Georgia	Thailand
Yemen	Gabon	Ecuador	Ghana	Ukraine
Netherlands	Gambia	El Salvador	Guatemala	
	Guinea	Ethiopia	Hungary	
	Iran, Islamic Rep. of	Haiti	India	
	Jordan	Honduras	Kazakhstan	
	Korea, Rep. of	Hong Kong, China (SAR)	Lao, People's Dem. Rep.	
	Lebanon	Indonesia	Latvia	
	Lesotho	Kenya	Mexico	
	Madagascar	Kyrgyzstan	Morocco	
	Maldives	Macedonia, FYR	Myanmar	

(continued)

Table 2 (Continued)

1 (very low)	2	3	4	5 (very high)
	Nicaragua	Malawi	Nepal	
	Panama	Malaysia	Pakistan	
	Rwanda	Mali	Philippines	
	Sudan	Mozambique	Poland	
	Swaziland	Niger	Slovakia	
	United States	Peru	Uzbekistan	
	Tunisia	Senegal	Viet Nam	
	Zimbabwe	Sierra Leone		
		Singapore		
		Slovenia		
		South Africa		
		Sri Lanka		
		Tajikistan		
		Tanzania, United Rep. of		
		Togo		
		Turkey		
		Turkmenistan		
		Uganda		
		Venezuela		
		Zambia		

Source: UNODC (2006).

Table 3 Descriptive statistics

<i>Variable</i>	<i>Number of observations</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
Included in the UNODC report	172	0.69	0.47	0	1
Incidence of trafficking origin	118	2.97	1.12	1	5
ln(GDP/capita)	172	8.56	1.16	5.52	11.04
ln(GDP/capita square)	172	74.58	19.80	30.43	121.87
(Lack of) press freedom	172	46.61	24.11	9	96
Region variable	172	2.93	1.43	1	5
Access to sea	172	0.79	0.41	0	1
Transition economy	172	0.16	0.36	0	1
Conflict	172	0.34	0.48	0	1
ln(total population)	171	1.94	1.87	-2.30	7.17
Sex ratio (age 15 and under)	171	1.04	0.02	0.96	1.13
Ratio of female–male literacy rate	158	88.34	16.67	31.28	122.52
Ratio of female–male life expectancy	167	106.91	4.05	96.2	122.2
Ratio of female–male income	158	52.77	14.35	19	101
Rule of law	172	-0.06	0.99	-1.91	1.92
Headcount ratio (US\$2/day, [PPP])	128	33.26	32.22	0	96.57

descriptive statistics and the Appendix for data sources). As indicators of gender inequality, we use the female–male ratios of income, literacy, and life expectancy and the sex ratio for the under-15 population.

We use the log of the 2003 GDP per capita (US\$2/day [PPP]) as a metric of the standard of living in the country. We include a squared term to capture any nonlinearities. Later, we also include the headcount ratio using the US\$2/day (PPP) poverty line to test whether this pattern is robust to income distribution within the country.

Control variables

Reports of trafficking in the West consistently point to Eastern Europe and the CIS states as important points of origin (Hughes and Raymond 2001; United States Department of State 2007). Unemployment, declining real wages, and increases in inequality often accompanied the transition from state- to market-led economies in these countries. We use a dummy for *transition economies* to control for this effect. Interestingly non-European transition countries such as China and Vietnam are also considered relatively high trafficking origin countries in these reports.

We also include the (log) total population in a country. The law of averages suggests that countries with larger populations would be more likely to be origin points for both migration and trafficking. We also construct a geographic variable that indicates whether or not a country is landlocked (versus having some access to the sea). We chose this variable

both because of the literature linking geography to development outcomes, as well as because we expect access to sea routes to potentially affect the level of trafficking originating from a country (Michael Faye, John W. McArthur, Jeffrey Sachs, and Thomas Snow 2004).

The literature on trafficking suggests that the political situation within a country is also an important determinant of the level of trafficking. Conflict and civil war have been extensively cited as push factors for migration and trafficking (Heyzer 2002; Hausner 2005). To account for the impact of conflict, we use the Uppsala Conflict Data Program and International Peace Research Institute, Oslo (UCDP/PRIO) 2007 Armed Conflict Dataset to classify countries into two groups: those with a reported conflict either ongoing or concluded between 1990 and 2004, the period covered by and just preceding the UN report, versus those with no reported conflict in this time.

Organized crime networks are believed to play a substantial role in the supply-side of trafficking, particularly in Eastern Europe (Alexandra Orlova 2004). Other studies point out the importance of non-mafia-based traffickers who often act alone (Andrijasevic 2003; Hausner 2005). In both cases, trafficking depends upon law enforcement officials willing to look the other way (Hughes 2000; Kelly 2002). The World Bank Institute has constructed a cross-country rule of law indicator that combines an index of organized crime with other commonly used indices of corruption and illegal activity. This indicator is a point estimate for each country based on this collection of survey data, with higher values corresponding to greater rule of law (Daniel Kaufmann, Aart Kraay, and Massimo Mastruzzi 2010). Despite concerns about the ideological stances of some of the organizations providing this data, the rule of law indicator helps us control for differences in the law enforcement environment.

METHODOLOGY

Our regression analysis takes the variable *reported incidence of origin of trafficking* as the dependent variable, and we use the independent or causal variables discussed below to try and isolate the most important characteristics of countries that rank high on the incidence of origin of trafficking. Since the dependent variable, *incidence of origin* is ordinal with five ranked categories, we use multivariate ordinal logit regression to try and isolate the primary characteristics of origin countries.

Assume that the underlying level of trafficking originating in country i is y_i^* , which is in turn based upon a number of determinant factors x_i such that:

$$y_i^* = \alpha + \beta^* x_i + u_i, i = 1 \text{ to } N$$

where α is a constant and u_i is an error term with a logistic distribution. The data available to us is a classification of the countries into categories such that:

$$y_1 = 1 \text{ if } -\infty < y^* < k_1$$

$$y_2 = 1 \text{ if } k_1 < y^* < k_2 \dots \text{ etc.}$$

The dependent variable in this case is incidence of origin and has five categories, taking values from 1 to 5. We did run likelihood ratio tests to evaluate the possibility of collapsing this variable into three categories, but the tests suggested that collapsing categories would result in loss of information. We should therefore add a caveat to our analysis, in that we realize that the results may be affected by the small size of the dataset relative to the large number of categories in the dependent variable and the large number of independent variables used.

We generated the estimated parameters β_i using the maximum likelihood method and interpreted them as the probability that a change in the independent variable will result in a change in the log odds ratio of a country having the highest level of trafficking origin (versus the remaining four combined). Coefficients provide the most accurate picture of movements between the extreme categories – that is, a shift from very low to very high; but they say less about what would increase the likelihood of countries moving between the categories in the middle (medium to high).

Before undertaking this regression analysis, however, we did correct for one possible problem in the data. While the UNODC classifies 127 countries by incidence of origin, several other countries, including most in Western Europe, are listed as “not reported” – that is, no reports were found citing them as origin countries for trafficking. Table 4 shows us that many of these excluded countries are relatively high-income democracies located in the West. This classification may, on the one hand, reflect a genuine lack of trafficking from these countries. It may also reflect geographical biases in the sources used by UNODC. Given the difficulty of defining trafficking, however, it could also reflect cultural or political biases in the media reports used in the database, as we discuss below. While we are unable to supplement the data the UN makes available, we try to correct for sample selection bias using a statistical technique called the Heckman selection procedure, modified for an ordinal dependent variable.

Heckman selection procedure

The Heckman procedure involves constructing a selection equation that, in our case, would estimate the probability that a country was included in the database merely due to reporting biases. We used the results of a binary probit estimation of the selection equation to calculate an inverse mills

Table 4 Countries not included in the UNODC (2006) trafficking report (in ascending order of GDP/capita)

Guinea-Bissau	Dominica	Saint Kitts and Nevis	Greece	Japan
Central African Republic	Saint Lucia	Saudi Arabia	Israel	Belgium
São Tomé and Príncipe	Samoa (Western)	Oman	Spain	Australia
Comoros	Saint Vincent and Grenadines	Barbados	United Arab Emirates	Austria
Solomon Islands	Namibia	Bahamas	New Zealand	Switzerland
Mauritania	Belize	Bahrain	Sweden	Iceland
Mongolia	Tonga	Malta	Italy	Denmark
Bolivia	Grenada	Kuwait	United Kingdom	Norway
Papua New Guinea	Seychelles	Portugal	Finland	Ireland
Vanuatu	Trinidad and Tobago	Cyprus	France	Luxembourg
Guyana	Mauritius	Qatar	Germany	

ratio, which, in the Heckman procedure, is included in the regression analysis of the dependent variable to correct for any selection bias. Maximum likelihood estimation is required when the dependent variable is ordinal. In this case, the variable of interest for determining the strength of sample selection bias is coefficient on ρ , the correlation between the error terms in the first and second stage regressions. An additional likelihood ratio test of $\rho = 0$ might be important because of the relatively small sample we have in this case. We acknowledge that using sample selection on a relatively small dataset may result in bias and instability of the results. We do find, however, that the results obtained here are robust to both the exclusion and inclusion of certain variables of interest, as reported below.

The selection equation in our analysis uses a binary dependent variable taking value 1 if the country was included in the database and 0 if it was left out (see Table 4 for a list of excluded countries). Of a total of 172 countries, 118 took the value 1.

We used two main determinants of selection. The first is a five-category ordinal variable representing the regional location of the country. The sources for the UNODC dataset were concentrated in certain regions of the world, creating a possible source of sample selection bias. Latin America and the Caribbean, for example, only accounted for 4 percent of all sources, while Europe and the CIS accounted for 36 percent (UNODC 2006: 111). The classificatory regions we used, in ascending order of the share of data sources from that country, were: Latin America and the Caribbean, Africa, Asia, North America, and Europe and the CIS. Thus the *region* variable takes values 1 through 5, with a country located in Latin America receiving a value of 1; and so on.

The second determinant of selection was the country's Freedom of the Press score according to the 2005 Freedom House country rankings.² This score can range from 0 to 100, with 100 representing an entirely unfree press. Given that the UNODC database relies considerably upon media reports, we think it is important to control for the extent to which journalists may be able to work in or receive reports about a country.

However, the role of the media in this case is ambiguous. A simple bivariate correlation tells us that the press freedom score is in fact statistically significantly but positively correlated with inclusion in the report (neither the size nor sign of the correlation coefficient indicate a relationship with the incidence variable).³ That is, the more free the media, the fewer the reports of trafficking originating from that same country. This could, of course, indicate the fact that better information dispersion reduces the incidence of trafficking and that selection bias is not an important factor here. However, as discussed earlier, the literature on trafficking suggests that media reports often perpetuate stereotypes about who is trafficked and, indeed, what trafficking means. Thus incidents involving countries and peoples more familiar to media sources may be

classified as incidents of migration rather than trafficking. While we are unable to probe this issue further in this study, we think this is an interesting question for further research.

We included the independent variables from the second-stage regression as covariates in the selection equation, with one exception. None of the countries excluded from the report were transition economies, which created a problem of collinearity. As a result, we dropped the transition dummy from the selection equation.

RESULTS

Table 5 reports the results of our initial specification. As far as the sample selection estimation goes, the (lack of) press freedom variable was statistically significant and positively signed – thus it was countries with less press freedom that were more likely to be included, all else constant. As discussed above, we think this is an interesting result that bears further investigation. The (log) GDP per capita terms suggests an inverse-U relationship: both the richest and the poorest countries were less likely to appear in the reports in the UN database. Total population was also statistically significant. Countries with larger populations were more likely to be selected.

Importantly, while the coefficient on ρ was positive and statistically significant at the 10 percent level, likelihood ratio tests of $\rho = 0$ suggested that the null hypothesis could not be rejected. The positively signed value for ρ indicates that the impact of an independent variable that also appears in the selection equation is larger than the coefficient in the outcome equation alone. This suggests that sample selection bias was not significant in this formulation of the regression equation. As Table 5 shows, the sign and significance of effects without the Heckman correction were unchanged, and the larger size of the coefficients corresponded with the fact that ρ was positively signed.

As expected, the dummy variable for transition economies was highly significant at the 1 percent level. All else constant, the odds ratio tells us that being a transition economy made a country nineteen times more likely to be in the highest trafficking category (relative to the remaining four combined). This variable may be capturing not just the loss of economic and physical security that accompanied transition in many countries, but also the demand side effects of racialized notions of beauty and genteelness discussed earlier.

Total population was also positively and significantly correlated. A 1 percent increase in population, all else constant, would make a country 1.6 times more likely to move to a higher trafficking category. The coefficients on the GDP per capita and GDP per capita squared terms confirmed an inverse U-shaped relationship between national income and trafficking. The result did suggest that there might be some merit to viewing trafficking and human smuggling or illegal migration as lying along a continuum, rather than as

Table 5 Dependent variable: incidence of origin

Number of obs. = 115
Wald $\chi^2(23) = 110.41$
Prob > $\chi^2 = 0.000$
Log likelihood = -176.185

	<i>Coefficient</i>	<i>Coefficient without selection equation</i>	<i>Odds ratio</i>
ln(GDP/capita)	4.580** (1.949)	6.64**	766
ln(GDP/capita square)	-0.284** (0.117)	-0.41**	0.66
Transition economy	1.715*** (0.417)	2.92***	18.5
Access to sea	0.473* (0.273)	0.70*	2.02
Conflict	-0.143 (0.260)	-0.23	0.79
ln(total population)	0.423*** (0.088)	0.64***	1.90
Rule of law	-0.323 (0.218)	-0.36	0.70
Ratio of female–male income	0.034*** (0.010)	0.05***	1.05
Ratio of female–male literacy rate	-0.004 (0.008)	-0.01	0.99
Ratio of female–male life expectancy	0.055 (0.034)	0.09	1.09
Sex ratio (age 15 and under)	1.364 (5.673)	-0.18	0.84
Selection equation (N = 152) (Lack of) press freedom	0.032** (0.012)		
Regional classification	-0.164 (0.150)		
ln(GDP/capita)	5.051* (3.031)		
ln(GDP/capita squared)	-0.325* (0.177)		
Access to sea	0.354 (0.410)		
Conflict	-0.024 (0.437)		
ln(total population)	0.363*** (0.116)		
Rule of law	-0.057 (0.353)		
Ratio of female–male income	0.033** (0.015)		
Ratio of female–male literacy rate	0.009 (0.014)		

(continued)

Table 5 (*Continued*)

	<i>Coefficient</i>	<i>Coefficient without selection equation</i>	<i>Odds ratio</i>
Ratio of female–male life expectancy	0.099* (0.059)		
Sex ratio (age 15 and under)	12.294 (9.790)		
Constant	-45.936*** (13.937)		
Rho	0.560* (0.337)		

Notes: Likelihood ratio test for $\rho = 0$: $\chi^2(1) = 0.41$ $\text{Prob} \geq \chi^2 = 0.522$. ***, **, * denote statistical significance at the 1, 5, and 10 percent levels, respectively. Standard errors are in parenthesis.

distinct phenomena requiring substantially different institutional responses. As with immigration, the poorest and richest countries are less likely to be sources for trafficking, due to both the costs of migration and the forces of demand in the labor markets that trafficked persons enter.

The only indicator of gender inequality that was statistically significant was the ratio of female–male income, which was positively correlated with the incidence of trafficking origin. Thus countries with less (urban) labor market gender inequality were actually more likely to be origin points for trafficking. A 1 percent increase in the female–male income ratio would make it 1.05 times more likely that a country was in the highest rather than the four lower categories combined. Due to the possibility of correlation among gender inequality variables, we also ran the same sample selection regression with each measure separately; once again, only the female–male income ratio was statistically significant. Table 6 reports the results of the regression using only the female–male income ratio as the metric of gender inequality. Other results are available upon request.

We also ran an alternative specification of the complete equation with the inclusion of the headcount ratio, lowering the sample size to 95 (see Table 7). Neither the freedom of press nor the region variable was statistically significant, and the likelihood ratio test for $\rho = 0$ was also insignificant. However, the results for the income terms and the ratio of female–male income were similar to the previous regressions and did not change when the selection equation was dropped. Interestingly, the share of female–male life expectancy was now also statistically significant and, once again, positively related to trafficking origin.

ANALYSIS OF THE RESULTS

These results empirically validate what interviews of trafficking victims have indicated: the majority of trafficking victims are not the poorest of the world's

Table 6 Alternative specification using only female–male income share. Dependent variable: incidence of origin

Number of obs = 115	
Wald chi2(17) = 114.62	
Prob > χ^2 = 0.000	
Log likelihood = -183.230	
	Coefficient
ln(GDP/capita)	5.179*** (1.769)
ln(GDP/capita squared)	-0.317*** (0.108)
Transition economy	1.923*** (0.334)
Access to sea	0.444* (0.269)
Conflict	-0.151 (0.257)
ln(total population)	0.458*** (0.080)
Rule of law	-0.352* (0.204)
Ratio of female–male income	0.032*** (0.010)
Selection equation(N = 152)	
(Lack of) Press freedom	0.199** (0.009)
Regional classification	-0.010 (0.116)
ln(GDP/capita)	8.344*** (2.358)
ln(GDP/capita squared)	-0.507*** (0.142)
Access to sea	0.117 (0.379)
Conflict	-0.213 (0.390)
ln(total population)	0.464*** (0.105)
Rule of law	-0.089 (0.326)
Ratio of female–male income	0.020* (0.012)
Constant	-35.608*** (10.164)
Rho	0.658*** (0.138)

Notes: Likelihood ratio test for $\rho = 0$: $\chi^2(1) = 2.06$ Prob $\geq \chi^2 = 0.151$. ***, **, * denote statistical significance at the 1, 5, and 10 percent levels, respectively. Standard errors are in parenthesis.

Table 7 Regression including headcount ratio: dependent variable: incidence of origin

Number of obs = 95
Wald $\chi^2(25) = 87.5$
Prob > $\chi^2 = 0.000$
Log likelihood = -135.466

	<i>Coefficient</i>	<i>Coefficients without selection equation</i>	<i>Odds ratios</i>
ln(GDP/capita)	5.780** (2.474)	8.04	3108.04
ln(GDP/capita squared)	-0.362** (0.148)	-0.50	0.61
Transition economy	1.559*** (0.478)	2.72	15.18
Access to sea	0.816** (0.340)	1.17	3.21
Conflict	-0.141 (0.293)	-0.25	0.78
ln(total population)	0.440*** (0.102)	0.69	2.00
Rule of law	-0.212 (0.275)	-0.23	0.79
Ratio of female–male income	0.038*** (0.013)	0.06	1.06
Ratio of female–male literacy rate	-0.003 (0.009)	-0.01	0.99
Ratio of female–male life expectancy	0.107** (0.045)	0.15	1.17
Sex ratio (15 and under)	2.931 (6.307)	1.92	6.81
Headcount ratio	0.006 (0.009)	0.01	1.01
Selection equation(N = 120) (Lack of) press freedom	0.018 (0.014)		
Regional classification	-0.202 (0.185)		
ln(GDP/capita)	7.974* (4.502)		
ln(GDP/capita squared)	-0.498* (0.263)		
Access to sea	1.074 (0.539)		
Conflict	0.448 (0.519)		
ln(total population)	0.448** (0.520)		
Rule of law	-0.037 (0.484)		

(continued)

Table 7 (*Continued*)

	<i>Coefficient</i>	<i>Coefficients without selection equation</i>	<i>Odds ratios</i>
Ratio of female–male income	0.030 (0.020)		
Ratio of female–male literacy rate	0.008 (0.017)		
Ratio of female–male life expectancy	0.111 (0.078)		
Sex ratio (age 15 and under)	15.217 (12.408)		
Headcount ratio	0.013 (0.012)		
Constant	-62.506*** (22.311)		
Rho	0.622*** (0.125)		

Notes: Likelihood ratio test for $\rho = 0$: $\chi^2(1) = 1.98$ Prob $\geq \chi^2 = 0.159$. ***, **, * denote statistical significance at the 1, 5, and 10 percent levels, respectively. Standard errors are in parenthesis.

women and men. Instead, for both demand-side and supply-side reasons, they tend to be women and men who have perhaps already achieved some measure of economic mobility but now feel that those gains are threatened within their own countries. The results for the transition dummy suggest the kinds of events that increase the perception and reality of such threats.

As far as gender inequality goes, the more obvious manifestations of patriarchy, lower women's literacy, and low sex ratios have no impact upon trafficking. The female–male income ratio was, however, positively and significantly correlated with trafficking incidence. Once we controlled for the level of absolute poverty in a country, the female–male life expectancy ratio was also positively and significantly related to trafficking origin. These results bear out micro-level studies suggesting that it is in societies permissive enough to allow women to travel alone and be potential economic migrants – indeed, to have aspirations to economic mobility – that we are likely to see trafficking originate. Our results validate feminist approaches to trafficking that first, accept the very real desire to move that drives victims of trafficking and second, do not conflate poverty and gender inequality with this desire to move.

CONCLUSIONS

This study empirically evaluated the factors that increase a country's likelihood of being an origin point for inter-country human trafficking. In particular, we asked how and how much economic development and gender inequality matter in shaping patterns of human trafficking and

whether these patterns are different from those observed in the literature on illegal migration. While data limitations constrained our analysis, we found some interesting results that do appear fairly robust.

Ordinal logit regressions corrected for sample selection bias tell us that trafficking is not more likely in countries with greater gender inequality. This finding reminds us that the problem of human trafficking cannot be reduced to the problem of gender inequality in developing countries. Our results do not support solutions that shift the focus away from immigration laws in host countries to better education or wages for women in origin countries. While better education and wages for women are important for multiple reasons, our study does not suggest that they are the primary solution to the particular problem of trafficking. The results also remind us of the limits of available cross-country measures of gender inequality, which do not yet reflect the feminist emphasis on economic security or social provisioning as an essential component of empowerment.

Our study also finds an inverse U-shaped relationship between the PPP income per capita for a country and the incidence of trafficking origin. Research on migration suggests a very similar relationship. Overall, it appears that at this macro level it is difficult to distinguish clearly between trafficking and forms of illegal migration, even according to the Palermo Protocol's own definition. We see merit in the case for addressing both under the umbrella of what could be termed "trafficking-like practices" to better capture both the immense constraints placed upon the movement of people from the developing world and the resultant ease with which voluntary shades into involuntary. Most of all, a clearer recognition that even these circuits of exploitation exclude those who are worst off may redirect some of the energy and resources devoted to trafficking toward ending the new "global apartheid" of immigration laws (Sharma 2005: 88).

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NOTES

- ¹ The US Department of State maintains a similar record of trafficking levels in different countries; but the UN data is more comprehensive because it incorporates US official trafficking reports alongside other such official and nonofficial reports.
- ² While Freedom House is largely funded by the US government, and thus, might be slanted toward an official view, other such rankings (such as by the Intelligence Unit of *The Economist*) unfortunately also come with possible ideological biases. This particular ranking covers a very wide range of countries, allowing us to maximize the number of observations in our analysis.
- ³ The correlation between being included and the freedom of press score was 0.49 and statistically significant at the 1 percent level.

REFERENCES

- ActionAid. 2005. *Synthesis Report on the Trafficking of Vietnamese Women and Children*. Vietnam: ActionAid International.
- Agustín, Laura. 2005. “Migrants in the Mistress’s House: Other Voices in the ‘Trafficking’ Debate.” *Social Politics: International Studies in Gender, State and Society* 12(1): 96–117.
- Anderson, Bridget and Julia O’Connell Davidson. 2004. *Trafficking: A Demand Led Problem? Part 1: Review of Evidence and Debates*. Stockholm: Save the Children Sweden. <http://resourcecentre.savethechildren.se/content/library/documents/trafficking-demand-led-problem-part-1-review-evidence-and-debates> (accessed May 2008).
- Andrijasevic, Rutvica. 2003. “The Difference Borders Make: (Il)legality, Migration and Trafficking in Italy among Eastern European Women in Prostitution,” in Sara Ahmed, Claudia Castañeda, Anne-Marie Fortier, and Mimi Sheller, eds. *Uprootings/Regroundings: Questions of Home and Migration*, pp. 251–72. Oxford: Berg. http://oro.open.ac.uk/13092/1/chapter_11.pdf (accessed May 2010).
- . 2007. “Problematizing Trafficking for the Sex Sector: A Case of Eastern European Women in the EU,” in Sarah van Walsung and Thomas Spijkerboer, eds. *Women and Immigration Law: New Variations on Classical Feminist Themes*, pp. 86–103. Abingdon, UK: Routledge-Cavendish.
- Basok, Tanya and Nicola Piper. 2012. “Management versus Rights: Women’s Migration and Global Governance in Latin America and the Caribbean.” *Feminist Economics* 18(2): 35–61.
- Bettio, Francesca and Tushar K. Nandi. 2010. “Evidence on Women Trafficked for Sexual Exploitation: A Rights Based Analysis.” *European Journal of Law and Economics* 29(1): 15–42.
- Central Intelligence Agency. 2005. *The World Factbook 2005*. Washington, DC: Central Intelligence Agency. <https://www.cia.gov/library/publications/the-world-factbook/index.html> (accessed May 2008).
- Chiswick, Barry R. and Timothy J. Hatton. 2002. “International Migration and the Integration of Labor Markets.” IZA Discussion Paper 559. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=322541 (accessed May 2010).

- Derks, Annuska, Roger Henke, and Ly Vanna. 2006. *Review of a Decade of Research on Trafficking in Persons, Cambodia*. http://asiafoundation.org/pdf/CB_TIPreview.pdf (accessed May 2008).
- Dessy, Sylvain E. and Stéphane Pallage. 2006. "Some Surprising Effects of Better Law Enforcement against Child Trafficking." *Journal of African Development* 1(1): 115–31.
- Di Tommaso, Maria L., Isilda Shima, Steinar Strøm, and Francesca Bettio. 2009. "As Bad as It Gets: Well-Being Deprivation of Sexually Exploited Trafficked Women." *European Journal of Political Economy* 25(2): 143–62.
- Doezema, Jo. 2002. "Who Gets to Choose: Coercion, Consent, and the UN Trafficking Protocol." *Gender and Development* 10(1): 20–7.
- Donato, Katharine M., Donna Gabaccia, Jennifer Holdaway, Martin Manalansan IV, and Patricia R. Pessar. 2006. "A Glass Half Full? Gender in Migration Studies." *International Migration Review* 40(1): 3–26.
- Ehrenreich, Barbara and Arlie Russell Hochschild. 2003. "Introduction," in Barbara Ehrenreich and Arlie Russell Hochschild, eds. *Global Woman: Nannies, Maids, and Sex Workers in the New Economy*, pp. 1–14. New York: Henry Holt.
- Faye, Michael, John W. McArthur, Jeffrey Sachs, and Thomas Snow. 2004. "The Challenges Facing Landlocked Developing Countries." *Journal of Human Development* 5(1): 31–68.
- Freedom House. 2005. *Freedom in the World 2005*. <http://www.freedomhouse.org/template.cfm?page=211&year=2005> (accessed May 2010).
- Freeman, Richard. 2006. "People Flows in Globalization." *Journal of Economic Perspectives* 20(2): 145–70.
- Ghosh, Jayati. 2009. "Migration and Gender Empowerment: Recent Trends and Emerging Issues." Human Development Reports Research Paper 2009/04, United Nations Development Programme (UNDP).
- Hatton, Timothy J. and Jeffrey G. Williamson. 2003. "What Fundamentals Drive World Migration?" Discussion Paper 2003/23, World Institute for Development Economics Research (WIDER), United Nations University.
- Hausner, Sondra. 2005. *The Movement of Women: Migration, Trafficking and Prostitution in the Context of Nepal's Armed Conflict*. Kathmandu: Save the Children, USA.
- Heyzer, Noeleen. 2002. "Combating Trafficking in Women and Children: A Gender and Human Rights Framework." Plenary Address presented at The Human Rights Challenges of Globalization: Asia-Pacific-US, The Trafficking in Persons, Especially Women and Children.
- Hughes, Donna M. 2000. "The 'Natasha' Trade: The Transnational Shadow Market of Trafficking in Women." *Journal of International Affairs* 53(2): 625–51.
- Hughes, Donna M. and Janice G. Raymond. 2001. "Sex Trafficking of Women in the United States: International and Domestic Trends." Coalition Against Trafficking in Women. <http://www.ncjrs.gov/App/Publications/abstract.aspx?ID=187774> (accessed May 2008).
- International Labour Organization (ILO). 2004. *Towards a Fair Deal for Migrant Workers in the Global Economy, Report VI*. International Labor Conference, 92nd session. Geneva: ILO.
- International Monetary Fund. 2000. *Transition Economies: An IMF Perspective on Progress and Prospects*. <http://www.imf.org/external/np/exr/ib/2000/110300.htm> (accessed June 2008).
- Jakobsson, Niklas and Andreas Kotsadam. 2010. "The Law and Economics of International Sex Slavery: Prostitution Laws and Trafficking for Sexual Exploitation." Working Papers in Economics 458, University of Gothenburg, Sweden.
- Jordan, Ann. 2002. "Human Rights or Wrongs? The Struggle for a Rights-Based Response to Trafficking in Human Beings." *Gender and Development* 10(1): 28–37.

- Kandiyoti, Deniz. 1999. "Islam and Patriarchy: A Comparative Perspective," in Sharlene Hesse-Biber, Christina Gilmartin, and Robin Lydenberg, eds. *Feminist Approaches to Theory and Methodology*, pp. 219–35. New York: Oxford University Press.
- Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi. 2010. "The Worldwide Governance Indicators: Methodology and Analytical Issues." World Bank Policy Research Working Paper 5430. <http://ssrn.com/abstract=1682130> (accessed January 2011).
- Kelly, Elizabeth. 2002. *Journeys of Jeopardy: A Review of Research on Trafficking in Women and Children in Europe*. International Organization for Migration (IOM) Migration Research Series 11. Geneva: IOM.
- . 2005. "You Can Find Anything You Want: A Critical Reflection on Research on Trafficking in Persons within and into Europe." *International Migration* 43(1–2): 235–65.
- Kempadoo, Kamala. 2005. "Introduction. From Moral Panic to Global Justice: Changing Perspectives on Trafficking," in Kamala Kempadoo with Jyoti Sanghera and Bandana Pattanaik, eds. *Trafficking and Prostitution Reconsidered: New Perspectives on Migration, Sex Work, and Human Rights*, pp. vii–xxxiv. Boulder, CO: Paradigm.
- Klasen, Stephan. 2006. "UNDP's Gender-Related Measures: Some Conceptual Problems and Possible Solutions." *Journal of Human Development* 7(2): 243–74.
- Laczko, Frank. 2005. "Data and Research on Human Trafficking." *International Migration* 43(1–2): 5–16.
- Miriam, Kathy. 2005. "Stopping the Traffic in Women: Power, Agency and Abolition in Feminist Debates over Sex-Trafficking." *Journal of Social Philosophy* 36(1): 1–17.
- Orlova, Alexandra. 2004. "From Social Dislocation to Human Trafficking." *Problems of Post-Communism* 51(6): 14–22.
- Parreñas, Rhacel S. 2001. *Servants of Globalization: Women, Migration, and Domestic Work*. Stanford, CA: Stanford University Press.
- Peréz, Marta. 2012. "Emergency Frames: Gender Violence and Immigration Status in Spain." *Feminist Economics* 18(2): 265–90.
- Piper, Nicola. 2005a. "A Problem by a Different Name? A Review of Research on Trafficking in South-East Asia and Oceania." *International Migration* 43(1–2): 203–33.
- . 2005b. "Gender and Migration." Paper prepared for the Policy Analysis and Research Programme of the Global Commission on International Migration (GCIM).
- Power, Marilyn. 2004. "Social Provisioning as a Starting Point for Feminist Economics." *Feminist Economics* 10(3): 3–19.
- Salt, John. 2000. "Trafficking and Human Smuggling: A European Perspective." *International Migration* 38(3): 31–56.
- Salt, John and Jeremy Stein. 1997. "Migration as a Business: The Case of Trafficking." *International Migration* 35(4): 467–94.
- Sassen, Saskia. 2003. "Global Cities and Survival Circuits," in Barbara Ehrenreich and Arlie Russell Hochschild, eds. *Global Woman: Nannies, Maids, and Sex Workers in the New Economy*, pp. 254–74. New York: Henry Holt.
- Sharma, Nandita. 2005. "Anti-Trafficking Rhetoric and the Making of a Global Apartheid." *National Women's Studies Association Journal* 17(3): 88–111.
- Stolz, Barbara Ann. 2007. "Interpreting the US Human Trafficking Debate through the Lens of Symbolic Politics." *Law and Policy* 29(3): 311–38.
- Tamura, Yuji. 2010. "Illegal Migration, People Smuggling, and Migrant Exploitation." Institute for International Integration Studies (IIIS) Discussion Paper 207. <http://ssrn.com/abstract=964011> (accessed May 2010).
- Travnickova, Ivana. 2004. *Trafficking in Women: The Czech Republic Perspective*. Institute for Criminology and Social Prevention (IKSP). Prague: United Nations Office on Drugs and Crime (UNODC)/United Nations Interregional Crime and Justice Research Institute (UNICRI). <http://www.ok.cz/iksp/docs/305.pdf> (accessed January 2011).

- United Nations Development Programme (UNDP). 2005. *Human Development Report (HDR) 2005. International Cooperation at a Crossroads: Aid, Trade and Security in an Unequal World*. New York: UNDP.
- . 2009. *Human Development Report (HDR) 2009. Overcoming Barriers: Human Mobility and Development*. New York: Palgrave Macmillan.
- United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLS). n.d. “Landlocked Developing Countries: Country Profiles.” <http://www.unohrrls.org/en/lldc/39/> (accessed May 2010).
- United Nations Office on Drugs and Crime (UNODC). 2006. “Trafficking in Persons: Global Patterns.” <http://www.unodc.org/documents/human-trafficking/HT-global-patterns-en.pdf> (accessed July, 2008).
- United States Department of State. 2007. “Trafficking in Persons Report 2007.” <http://www.state.gov/g/tip/rls/tiprpt/2007> (accessed July 2008).
- Uppsala Conflict Data Program and International Peace Research Institute, Oslo (UCDP/PRIO). 2007. UCDP/PRIO Armed Conflict Dataset. Version 4–2007. <http://www.prio.no/CSCW/Datasets/Armed-Conflict/UCDP-PRIO/Old-Versions/Armed-Conflicts-Version-4-2007-/> (accessed July 2008).
- Van Liemt, Gijsbert. 2004. “Human Trafficking in Europe: An Economic Perspective.” Working Paper 31, Infocus Programme on Promoting the Declaration on Fundamental Principles and Rights at Work, International Labour Organization (ILO).
- World Bank. 2005. *World Development Indicators, 1997–2005*. <http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2> (accessed June 2008).
- World Bank and World Bank Institute. 2005. *World Governance Indicators, 2005*. <http://info.worldbank.org/governance/wgi/index.asp> (accessed January 2011).

APPENDIX

Appendix Table 1 Sources for data

<i>Variable</i>	<i>Source</i>
Incidence of origin of trafficking	UNODC (2006)
HDI value	2005 HDR (UNDP 2005)
Transition economies	International Monetary Fund (2000)
GDP per capita (PPP), US\$, 2003	2005 HDR (UNDP 2005)
Ratio of female–male adult literacy rate (percent ages 15 and above), 2003	2005 HDR (UNDP 2005)
Ratio of female–male life expectancy, 2003	2005 HDR (UNDP 2005)
Ratio of estimated female–male earned income, 2003	2005 HDR (UNDP 2005)
Total population	2005 HDR (UNDP 2005)
Freedom of press scores	Freedom House (2005)
Conflict	UCDP/PRIO (2007)
Regional/geographic classification	UNODC (2006)
Access to sea	UN-OHRLLS (n.d.)
Sex ratio under age 15	Central Intelligence Agency (2005)
Rule of law index	World Governance Indicators, 2005 (World Bank and World Bank Institute 2005)
Headcount ratio under US\$2/day (PPP)	World Development Indicators, 1997–2005 (World Bank 2005)