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A brief review of the economics of illegal migration

Kar, Saibal

Centre for Studies in Social Sciences, Calcutta

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**Smuggling and Trafficking in Human Beings:
A Brief Review and A Model of the Economics of Illegal Migration**

Saibal Kar

Centre for Studies in Social Sciences, Calcutta and IZA, Bonn

1. Introduction

The issue of illegal immigration receives considerable attention from governments all over the world. The policy makers and the academia alike devote substantial interest in the subject owing to various socio-political and economic bearings on the recipient and the source countries. Defined broadly, illegal immigration constitutes a move from one country to another by ways and means not admissible under the general or country-specific legal requirements that ‘regular’ migrants need to satisfy. In some cases, however, overstaying by legal migrants turns them into illegal migrants and extends the definition of ‘irregular migration’. However, not all developed countries are exposed to illegal immigration of serious magnitude. Statistically speaking, the United States is undoubtedly the single largest recipient of illegal immigrants; Mexico being the largest source country. The official statistics of the US Homeland Security Department states that there has been entry of an estimated 11.5 million people in USA in the year 2011 alone. When such statistics is reviewed globally by inclusion of a number of destination countries in Europe and Asia-Pacific (mainly Australia), the numbers are overwhelming. Not surprisingly, therefore, the staggering volume of illegal immigration has motivated many influential studies in economics, political science, sociology and international law. These contributions are steadily growing and it may be useful to take a stock of the available issues in order to highlight some of the important policy implications emanating from

these studies. To this end, we mainly offer a brief review of the literature on the economics of illegal migration with anecdotal reference to sociological and legal scholarship. As a caveat, we must also mention that even for the economics literature our purpose is not to offer a census of all studies, but review a few interesting results and policies.

Before we proceed to further details, let us invoke a more recent concern about the categorization of illegal immigration into two possible strands dominating the current *modus operandi*. These are, namely, ‘smuggling’ and ‘trafficking’ of illegal workers mainly from poor to rich countries and we shall devote special attention to this distinction in later sections. Note that, albeit movement of workers across various countries have always been a matter of concern, but the magnanimity of what is now deemed as a severe problem is consequent on the impact of illegal movements spilling over to the economic, social and political lives of the legal residents at the destination and source countries. It came under the political and economic scanners of national governments and policymakers especially in countries that have historically relied on migrant workforce and continued to be migrant heaven even thirty years back. Much of the current impact assessments, therefore, treat illegal immigration as a host country problem.

As a result, policies to restrict illegal immigration have been primarily driven by the political and economic judgments at the destination capturing only a partial demand side view of the problem. One has to nevertheless appreciate the fact that since illegal immigration is principally governed by the conditions of excess supply of relatively unskilled workers, the socio-economic factors at the source must also be reviewed at length. In other words, unless sufficient attention is devoted to crucial incentives and disincentives governing decisions to migrate illegally from the source countries, many restrictive policies designed at the destinations are not likely to yield adequate results or lessen the degree of exploitation that is intrinsic to

illegal labor mobility. Moreover, an attempt to understand the supply side of the problem is also important in light of the fact that the richer destinations find it increasingly challenging to monitor and control illegal entries despite elaborate mechanisms in place (viz. Bandopadhyay and Bandyopadhyay, 1998). As part of casual observations it is agreed that illegal immigration as well as overstaying has increased as legalized access to the richer countries have steadily dwindled over time. Even with the Mode 4 type of arrangements under the GATS, which facilitates entry of manufacturing and construction workers in richer countries, a potential applicant is required to satisfy several stringent criteria to qualify as a legal migrant. Besides, many of these schemes typically operate on a favoured nation basis and are far from transparent. This is regularly discussed in the media (BBC, 2008; CNN, 2008, for example) and considered as an important factor that positively affects the scale of illegal immigration. Notwithstanding such temporary shocks generated by global business cycles and policies, various reports of the United Nations estimate the number of illegal entries at 4 million every year. This, as we have alluded earlier, constitutes both smuggled and trafficked workers. In this regard, the United Nations Office of Drugs and Crime (UNODC) states that smuggling of workers is the fastest growing activity in the world with profit currently estimated at \$31.6 billion.

The rest of the paper is divided into four sections. Section 2 broadly explores the economics of illegal immigration, where theory and examples relevant to the North American immigration problem feature as dominant sources of information. Section 3 discusses the economics of smuggling vis-à-vis trafficking and looks into the source country perspectives in detail. The fourth section deals with some socio-political impacts of smuggling and trafficking and section 5 concludes.

2. The Economics of Illegal Migration

Since 1990s the US immigration policies have focused on border enforcement rather than other forms of interior controls, especially on the US-Mexican borders despite the fact it has so far not been very successful in deterring illegal entries.¹ In the year 1997 the INS (currently, US Citizenship and Immigration Service) had developed a surveillance system in the form of Integrated Surveillance and Intelligence System (ISIS), which failed on many counts despite incurring huge costs on behalf of the US government (Koslowski, 2011). It is well-known that the dominant policy choices in the host country are restricted to border controls and/or internal monitoring. The trade-off between the two has been first discussed in Ethier (1986). It suggests that a policy mix of border enforcement and internal worksite monitoring affects the illegal wage and the capture rate of illegal entrants in a complex manner. When the border enforcement (expressed in terms of resources devoted to this activity) is zero but the domestic enforcement (expressed in terms of the domestic output spent for this purpose) is at its maximum, the wage received by an illegal worker is equal to that they receive at home (being captured with a higher probability and deported). On the other hand, if the domestic enforcement is zero and all resource is spent on border enforcement, then those illegal workers who manage to cross the border earn as much as the legal unskilled workers at destination (assuming imperfect identification of legal and illegal workers by employers). The substitution between border enforcement and domestic enforcement yields a strictly convex to the origin relationship and raises the illegal wage as the country moves towards zero domestic enforcement. The task before a social planner is to obtain a combination of the two policies, such that the total cost of enforcement is minimized, the national welfare maximized and the policy target of a certain level

¹It is recently reported, however, that the illegal Mexican entry into USA has dropped 16 percent in 2008 due to deployment of 3000 more border patrol and the tightening job market in construction and services (CNN, 2008).

of unskilled legal wage is achieved. According to this paper, if employer penalty for hiring illegal workers turns out to be a real social cost (lost output), then the optimal combination of the policies is at point *C* (figure 1 from Ethier, 1986, p.64). The policy duo offers a convex combination denoted by the curve *AB* and the slope of this curve at minus unity is the optimal choice (figure 1). As the policymaker chooses more border enforcement, the ratio of actual entries to potential attempts would fall, but so would detection at work. The illegal wage rises in the southeast direction. Movement towards the optimal point lowers net policy cost and improves *ex post* welfare of immigrants, but further movement in the southeast direction substitutes native welfare for illegal workers' welfare. Overall, the policy mix is effective in separating two distinct goals of income distribution and controlling of the volume of migration.

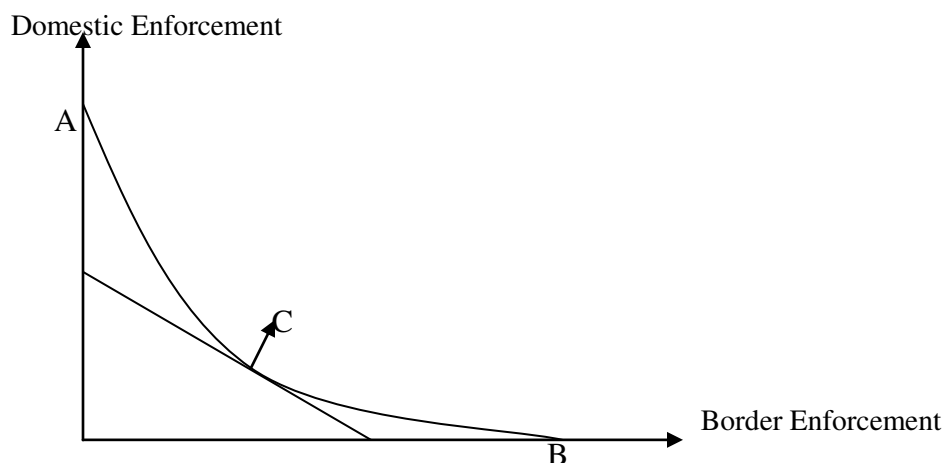


Figure 1. Optimal choice between domestic and border enforcements

These findings influenced research on various dynamic implications associated with comparable policies aimed at controlling illegal immigration. Border enforcement, worksite inspection and prohibition of employment of illegal workers all increase the entry cost for illegal workers. A large portion of the literature discusses how heightened border enforcement interacts with border crossing services – popularly called ‘coyote’ crossing in the US. Djajic (1999) used a simple dynamic framework of international and inter-sectoral migration of illegal workers to

argue that tougher employer sanctions, intensive identity checks, apprehensions and deportations help in lowering the stock of illegal immigrants only if their presence is limited to one geographic location and one economic activity. As tougher border controls raise the cost of illegal entry, illegal immigrants start investing in anti-detection efforts more. If the second effect dominates the first, the policy may have an adverse effect raising the stock of illegal immigrants.

Compared to this, employer sanctions are more effective in the sense that they reduce the flow of illegal immigrants by lowering their wages. Note that, an enhancement of identity checks, apprehensions and deportations might become ineffective if the demand for agricultural labor is inelastic by nature. It has often been observed that illegal immigrants might venture into newer geographic locations through support networks in an attempt to evade detection by authorities. The study clearly suggests that deeper research into the networking abilities of illegal immigrants is required in order to suggest policies, which are complementary in nature and are capable of dealing with the ability of immigrants to pervade into areas that are less prone to detection by authorities.

Guzman, Haslag and Orrenius (2007) offer several conditions wherein the response of tighter border enforcement is countered by greater time investments in border crossing. However, if the 'smugglers' are more efficient and use capital-intensive techniques, less time is spent on border-crossing attempts. This in turn raises the return from illegal migration and more workers choose to migrate illegally. In fact, many other possibilities exist, whereby the capital stock and saving propensity interact with the incentives to migrate illegally. Evaluation of the role of border enforcement vis-à-vis employer interdiction suggests that developed countries are unlikely to choose low border enforcement compared to no enforcement. Similarly, Woodland and Yoshida (2006) have discussed the connection between factor mobility and illegal

immigration when illegal workers display risk aversion. What do these and similar policy propositions therefore imply for welfare of the natives at destination?

Impact at Destination

The raging debate about illegal immigration and the distribution of wealth and economic development in sovereign countries is in stark contrast to the fact that people moved about quite freely even a century earlier.² However, the word ‘passport’ had come into existence at least by the sixteenth century when William Shakespeare uses it in *Henry V* (1599). But, there could not have been as much restriction on where individuals would want to settle as long as it did not disturb the fair shares of the dominant groups and did not amount to *landnahme* (land-taking) by invaders.³ The large intra-Europe migration clearly distinguished the Antiquity from the Middle Ages and spilled further on to the Medieval and Early Modern periods in Europe where Viking, Germanic, Slavic, Turkic, Avars, Bulgars, Angles and Saxons moved about the entire continent. Modern day migration is characteristically different from Medieval and Early Modern migration in the sense that people do not move about in considerably large groups any longer. Decision to migrate is purely individualistic, albeit in some cases migrants use the social capital of groups in order to choose appropriate destinations and lower the cost of relocation. In contrast, illegal immigration is characterized by movements in groups (although, smaller) and therefore reminiscent of historical migration patterns.

The economic, social and political impact of illegal immigration at the destination is looked at from various angles. First and foremost, many studies discuss implications of illegal immigration for the native job market via a number of questions, such as: (1) are the immigrants

² The only Indian to have arrived in USA in the year 1850, landed in Texas; US Bureau of Statistics.

³ These included conquest of Pannonia by Hungarians, Indo-Aryan conquest, Franks arriving in Francia, Seljuk invasion of Anatolia, Gaels coming to Ireland, Anglo-Saxon settlements in Britain etc.

competing with native workers for the same jobs? (2) How are wages determined for illegal workers? (3) Is there job market segmentation in effect? Most answers are critically linked to the illegal arrangements within the recipient countries and influenced by the mode that the illegal immigrants use for entry, whether smuggled in or trafficked. Generally, private firms or farms would always be inclined to hire workers willing to work for the lowest admissible wages. If the level of productivity at the lower rungs of the job ladder (where most of the illegal immigrants find jobs, see Djajic, 1997) is not dependent on the legal status of a worker, firms are essentially indifferent between hiring a legal and an illegal worker. But, there are always legal and institutional restrictions on hiring illegal workers manifested in the form of penalties, revoking of license or legal sanctions on the errant firms, subsequently creating the segmentation between legal and illegal labor markets. The wages and conditions of work in each market are direct products of such segmentation. Carter (1999) suggests that the effects of illegal immigration may both benefit and hurt unskilled workers owing to targeting of primary sector jobs. When illegal immigration is low, availability of primary sector jobs is high and is shared by natives and illegal immigrants. However, as more illegal workers enter, more and more natives are displaced from primary jobs leading to Pareto-superior policy propositions in favor of apprehending and deporting illegal workers from the primary sector.

This hardly means, however, that the demand for illegal workers is zero. First, the act of monitoring firms is costly and requires political consensus in a democracy. And democracies such as USA, according to Bhagwati (1987, p. 32), “with their strong civil-libertarian and civil lobbies, are not in a position to start shooting happily at the illegal migrants”.⁴ The alternative therefore is to ‘reason’ with the firms not to hire illegal workers, in the same spirit as many

⁴ Originally published as Bhagwati, J. N (1979), International factor movements and national advantage, 9th Ramaswami Lecture, *Indian Economic Review* 14, 73-100.

developing country governments now campaign against hiring of child labor given the official ban on such employment. Undoubtedly, it leaves enough space for the firms to flout norms with a probability attached to being apprehended on the act and pay a penalty. If the firms manage to evade apprehension, they retain considerable rent generated by illegal immigration.

Note that, unwittingly enough, policies adopted by a country to curb illegal inflows often produce perverse outcomes for the legal labor market. The allure of amnesty (Karlson and Katz, 2003) and a not-so-perfect border control leads to self-selection among illegal workers regarding who should migrate. It turns out that a positive probability of amnesty offered at the destination may attract better ability workers who will accept lower pays initially given the option to relocate to a higher paying job once the amnesty is granted. The low ability illegal workers on the other hand would not find (low) wage offers negotiable over time and will have little outside options given their skill – in addition to the looming threat of information leakage from the employing firms to the enforcement authorities. This would constitute a source of persistent exploitation of illegal workers as one observes from numerous sweatshop stories. It is further argued that unlike high ability counterparts, the low ability illegal immigrants become a burden to the host economy by consuming publicly supplied goods and services without paying taxes. A mix of amnesty and enforcement applicable to the illegal workers are likely to address the inherent tension between these options, in the same spirit as the trade-off discussed in Ethier (1986).

In this connection, Thum (2004) considers how the public expenditures may indirectly turn into an instrument of migration control given that in some cases free mobility of labor may be difficult to impede, as currently true for the unified labor market in the European Union. Enactment of discriminatory practices with regard to public expenditure may be a viable policy

when more direct practices such as charging higher taxes or excluding foreigners from public services are legally infeasible. More specifically, the government at the destination may predominantly provide those goods that benefit natives more than foreigners assuming that there is sufficient heterogeneity in language, culture and the consumption baskets between natives and immigrants. Since immigrants (in this case legal, but equally applicable to illegal workers) are often only temporary guest workers, it should not be difficult for a government to isolate expenditure categories along preference patterns. For example, it is straightforward that irregular migrants are less likely to visit theatres, use little services from public libraries or consume long hours of public broadcasting services. However, if there are widespread social safety nets, recreational facilities or public transport infrastructure, then immigrants cannot be fully excluded from these services, unless a law as the one recently adopted in Arizona comes into effect. It is argued that this law would potentially bring back the problems associated with racial profiling of immigrants in the US. According to this state law, all individuals must always carry identity proofs so that citizens could be distinguished from aliens. This is unusual for a country that did not use iron curtains for immigrants historically – legal and illegal. The proponents argue that this is a policy to achieve ‘attrition through enforcement’ in the number of illegal entries. In order to bypass this law, large number of immigrants of Hispanic origin has consequently moved over to New Mexico, the neighbouring state. Nonetheless, this is reminiscent of the infamous segregation policies prevalent in the United States for a very long time and the threats facing Blacks, Hispanics and other non-White immigrants in the form of political acceptability of the Ku Klux Klan (see, Levitt and Dubner, 2009).

In other words, given the decision to migrate at all, the location choice is seriously influenced by public expenditure and enforcement characteristics in effect. In fact, Borjas

(1999) shows that due to this differential location choice U.S. states with higher social transfers still become the welfare magnets for immigrants. These results, general for the immigrant population as a whole, are premised on the fact that immigrants do not have voting rights. Mayr (2007) derived conditions that if legal unskilled immigrants could vote then the tax rates could end up being too low hurting redistribution for all. Thus, out of pure re-distributive concerns alone the natives could vote against inflow of unskilled immigrants. This result does not entertain the possibility that such endogenous choices could exacerbate the problem of illegal unskilled immigration. These choices offer a basket of second-best options.

The *ex post* theory of Epstein and Weiss (2000) that *ex ante* illegal immigrants are undesirable, is however, much less myopic. Since border patrol and internal monitoring both consume too much resource, it is not economically efficient to completely stem illegal inflow (also impossible in view of long and porous borders between USA and Mexico, in the same way as India and South Africa from time to time are exposed to illegal infiltration from politically unstable and economically underdeveloped neighboring countries). It is also possible that illegal immigration turns out to be an endogenous policy choice at the destination, wherein the illegal workers are deployed in sector-specific activities despite initial rejection of such migration policies by the median voter (Hillman and Weiss, 1999). This reminds of the Ramaswami (1968) and Bhagwati (1979) propositions where it is ideal for a rich country, such as the US to allow all potential workers to move in from a poor country, like Mexico, and thereby marginal product of workers (and wage) lower at home.

The debate nonetheless continues in terms of the relationship between illegal immigration, minimum wages and migration policies (see Vogel, 2000 for similarities between the US and German policies; Gaytan-Fergoso and Lahiri, 2000 for the relationship between

foreign aid and illegal immigration, etc). Generally, the willingness to work for low wages encourages owners of capital to employ illegal immigrants. This happens when the wages demanded are lower than the mandated minimum wage. However, when the employment of illegal immigrants increases, it exerts an upward pressure on the minimum wage. An immigrant would take up a job if the wage is higher than that offered in the source country. An increase in the minimum wage would decrease the number of legal workers employed. This helps to determine the relationship between the enforcement budget and the number of illegal workers employed. The enforcement budget is determined on the basis of the behavior of workers and employers. On the other hand, the effect of enforcement budget depends upon the relative strength of the (legal) labor union or capital owners union. When the labor union is stronger, an increase in minimum wage raises the optimal enforcement while the reverse occurs when the capital owners union is stronger (Epstein & Heizler, 2007).

Accommodating further complication such as heterogeneous labor markets and growth in the presence of illegal migration Palivos and Chong (2010) show that illegal immigration increases average consumption levels of the economy and promotes skill acquisition among the natives. Further, it raises asset holdings of the skilled workers, but may also lead to unequal wealth distribution in the steady state as well as during the transition to a high illegal immigrant economy. It is possible that the transfer made from the accumulated penalty applicable to illegal immigrants (or employers) falls short of the loss endured by domestic unskilled workers. This leaves the wealth distribution even more skewed.

These and other arguments against illegal immigration often lead to persecution mania and misuse of the legal procedures aimed at reducing trafficking. This drives a considerably large section towards criminal activities and promotes growth of the shadow economies. On the

other hand, the larger shadow economies prevailing in Asia, Latin America and Africa keep creating opportunities for illegal immigration. Epstein and Weiss (2000) had suggested that illegal migrants might be considered for eventual amnesty to bring them back into the mainstream and thereby reduce additional costs incurred due to illegal ‘activities’ and deterioration of law and order situations. When one factors in the costs also borne by immigrants who choose to migrate illegally due to various reasons other than terrorism or similar intentions, the overall costs of illegal immigration becomes quite high. Chau (2001) argued that the constraint of offering amnesty to every illegal intruder works as a credible commitment on the part of the country to apprehend and deport illegal immigrants once they have entered the labor force. Section 3 deals with an analytical case where illegal immigration results from profit-seeking illegal activities by agents. It also brings up a set of complex interactions between migrant agents, local employers, source country issues and therefore the role of public policies.

3. A Model with Smuggling and Trafficking of Illegal Workers

“Sonia was invited to come to the United States by family friends and told that she could work for them as a housekeeper, and they would pay her \$100.00 a week. Sonia was provided with fraudulent documents and departed for the United States with her new employer. She knew that this was illegal, but she needed the money, and was willing to take the risk. *Was Sonia smuggled or trafficked? Sonia was smuggled into the United States.* She left willingly with full knowledge that she was entering the United States illegally.

Upon arriving in the United States, Sonia was kept in isolation, she was given a place to sleep in the basement and told not to speak to anyone or she would be turned over to the Immigration Service. Sonia was never paid for her work and felt that she had no one to turn to for help. *Was Sonia smuggled or trafficked?* At this point Sonia was restricted from leaving the house, threatened with deportation if she attempted to talk to anyone, and forced into involuntary servitude. *Sonia is a victim of trafficking.*”

(Excerpts from Fact Sheet, The Human Smuggling and Trafficking Center at the U.S. Department of State, Washington DC, January 1, 2005; italics added)

The excerpts clearly suggest that trafficking in person is not one-dimensional. There is a fine line between smuggling and trafficking and that statistically it may be quite difficult to isolate the two. In fact, what global data sets capture is essentially accounts of trafficked individuals who have been identified by public monitoring authorities and the information entered into official databases such as the European Central Aliens Register (US equivalent of this being the Central Index). Table 1 displays the top 10 destinations where trafficked migrants have been located in recent times.

Table 1 *Top 10 countries of destination where victims were trafficked in 2011*

| Destination Country | Numbers |
|----------------------------|----------------|
| Russian Federation | 837 |
| Haiti | 658 |
| Yemen | 552 |
| Thailand | 449 |
| Kazakhstan | 265 |
| Afghanistan | 170 |
| Indonesia | 148 |
| Poland | 122 |
| Egypt | 103 |
| Turkey | 101 |

Source: IOM trafficking case data.⁵

According to UNODC statistics, there has been a rising trend in the number of victims of trafficking identified globally during 2003 to 2006. 71 countries feature in the list where the authorities have been able to identify the victims recording a rise in numbers from 11706 in 2003 to 14909 in 2006 (UNODC, 2009). In addition, the profiles of victims were documented and aggregated in 61 countries for the year 2006. It was observed that 66% of the victims were women, 13% were girls, 12% were men and 9% were boys (UNODC, 2009). Drbohlav *et al*

⁵ This, however, includes cases of internal trafficking also.

(2013) provide similar evidence on age profile of smuggled workers from Czech Republic.

The latest report (2012) of the U.S. State Department on the trafficking in persons provides further insights regarding prosecutions, victim identification and convictions of traffickers from across the world. A cross-country assessment of the current scenario (based on estimates only, owing to lack of uniformity in national reporting structures) of trafficking in persons is provided in Table 2. This in fact has direct relations with the United Nations 3P, namely, Prosecution, Protection and Prevention aimed at monitoring and containing trafficking in human beings. Of late, the demand side aspects of smuggling and trafficking have gained some importance in the policy forum globally. From South Asian perspective, however, the situation is quite grim. Table A.1 in Appendix 1 offers an index compiled from Cho, Dreher and Neumayer (2011) to report the status of this policy implementation for South Asian countries. It shows that between the year 2000 and 2009, India, Pakistan, Bangladesh, Nepal and Sri Lanka, all have regularly prosecuted cases of trafficking and therefore score high on this count (on a scale of 1 to 5, meaning worst to best). However, except for a few years, protection offered to victims or potential victims and prevention in terms of concrete policy measures have been quite lackluster. Overall, therefore, the index for 3P is less than 3 for major South Asian countries, suggesting that there is room for substantial improvement (for detailed discussion on Asian migration patterns, see Abella, 2003). There should be little doubt that preventing smuggling and trafficking of workers and lowering the level of economic cost and exploitation associated with it require a better understanding of how the policies might work in a complex maze of conflicting interests.

In section 3 we offer an analytical discussion in this context, where the ‘second best’ policy of creating disincentives for employers of illegal workers, for agents who become

traffickers and the individual workers who consider migrating illegally, is explored. Related discussion is also available in Wheaton, Schauer and Galli (2010), which considers the market for traffickers as a monopolistically competitive one and analyze decisions made by potential migrants, employers of trafficked workers and social conditions that influence choice of trafficking by individuals. A number of other contributions are also available in the International Migration (2010).

Table 2 *Region-wise Description of Identification, Prosecution and Conviction*

| REGION | YEAR | PROSECUTIONS | CONVICTIONS | VICTIMS IDENTIFIED |
|--------------------------------|------|--------------|-------------|--------------------|
| <i>South and Central Asia</i> | 2005 | 1,041 | 406 | |
| | 2006 | 629 | 275 | |
| | 2007 | 824(162) | 298(33) | |
| | 2008 | 644(7) | 342(7) | |
| | 2009 | 1989(56) | 1450(10) | 3510 |
| | 2010 | 1460(196) | 1068(11) | 4357 |
| | 2011 | 974(24) | 829(11) | 3907 |
| <i>Africa</i> | 2005 | 194 | 58 | |
| | 2006 | 170 | 51 | |
| | 2007 | 123(28) | 63(26) | 5 |
| | 2008 | 109(18) | 90(20) | 7799 |
| | 2009 | 325(47) | 117(30) | 10861 |
| | 2010 | 272(168) | 163(113) | 9626 |
| | 2011 | 257(99) | 218(116) | 10094 |
| <i>East Asia & Pacific</i> | 2005 | 2580 | 2347 | |
| | 2006 | 1321 | 763 | |
| | 2007 | 1047(7) | 651(7) | |
| | 2008 | 1083(106) | 643(35) | 3374 |
| | 2009 | 357(113) | 256(72) | 5238 |
| | 2010 | 427(53) | 177(9) | 2597 |
| | 2011 | 1581(55) | 1213(55) | 5357 |

Table 2 *Region-wise Description of Identification, Prosecution and Conviction (contd.)*

| REGION | YEAR | PROSECUTIONS | CONVICTIONS | VICTIMS IDENTIFIED |
|---------------------------|------|--------------|-------------|--------------------|
| <i>Europe</i> | 2005 | 2521 | 1792 | |
| | 2006 | 2950 | 1821 | |
| | 2007 | 2820(111) | 1941 (80) | |
| | 2008 | 2808(83) | 1721 (16) | 8981 |
| | 2009 | 2208(160) | 1733 (149) | 14650 |
| | 2010 | 2803(47) | 1850 (38) | 8548 |
| | 2011 | 3162(271) | 1601 (81) | 10185 |
| <i>Western Hemisphere</i> | 2005 | 170 | 59 | |
| | 2006 | 443 | 63 | |
| | 2007 | 426(1) | 113(1) | |
| | 2008 | 448(42) | 161(24) | 6609 |
| | 2009 | 647(47) | 553(66) | 9020 |
| | 2010 | 732(80) | 293(65) | 6681 |
| | 2011 | 1023(42) | 318(52) | 9836 |
| <i>Near East</i> | 2005 | 112 | 104 | |
| | 2006 | 295 | 187 | |
| | 2007 | 415(181) | 361(179) | |
| | 2008 | 120(56) | 26(2) | 688 |
| | 2009 | 80(9) | 57(8) | 1011 |
| | 2010 | 323(63) | 68(10) | 1304 |
| | 2011 | 209(17) | 60(5) | 1831 |

Source: Department of State of United States of America, 2012.

Note: The numbers in parentheses are those of labor trafficking prosecutions and convictions.

To provide an analytical model on how various players interact in this market, let us consider a large illegal system where migrant smugglers, traffickers, local employers, and potential migrants, all respond to a policy choice made in the destination country. However, before we proceed further on this, let us distinguish between trafficking and smuggling of

workers. Trafficking in Persons means “the recruitment; transportation; transfer; harboring or receipt of persons; by means of threat or use of force or other forms of coercion; of abduction; of fraud; of deception; of abuse of power or position of vulnerability or of giving or receiving payments or benefits to achieve the consent of a person having control over another person; for the purpose of exploitation”. On the other hand, the Smuggling of Migrants Protocol supplementing the United Nations Convention against Transnational Organized Crime defines the smuggling of migrants as the “procurement, in order to obtain, directly or indirectly, a financial or other material benefit, of the illegal entry of a person into a State Party of which the person is not a national or a permanent resident” (Article 3, Smuggling of Migrants Protocol, UNODC).

Given this distinction we assume that smugglers and traffickers function as intermediate agents and their distribution is endogenous. The government’s objective function in the context of illegal immigration represents that of legal unskilled workers in the recipient country.⁶ Workers pay an optimal tax according to this objective function for financing inland monitoring, at a given level of border enforcement (see further, Singer and Massey, 1997; Hanson *et al.*, 1999; Bandopadhyay, 2006). Smugglers and traffickers are distinguished in terms of the exploitative rent they extract from illegal immigrants.

Existing studies on trafficking and exploitation emanate mainly from legal, political and sociological documents (McCreight, 2006; Granville, 2004; Kyle and Koslowski, 2001; Abella, 2000; IOM, 2000; Bales, 1999; etc.), and only recently have motivated economic analysis.

Tamura (2010) shows that migrant smugglers differ in exploitative powers. Based on the

⁶ Skilled workers often vote against illegal immigration since it affects general conditions of living, increases crime and dependence on transfer payments go up. However, their jobs are not directly threatened by it. Presently, we leave out unemployment concerns of skilled workers. Further, the government’s objective function may directly include concern for illegal immigrants. We show that the use of tax and unemployment benefit is a means to tackle illegal immigration even if the objective function does not explicitly include such arguments.

definitions of *smugglers* (organization that provides illegal border crossing services) and *traffickers* (organization that provides illegal border crossing services but exploits its clients after smuggling, UN 2000a, b), it determines endogenous distribution of smugglers and traffickers. Policy choices include border enforcement and high penalty for smugglers/traffickers. The critical policy implications are that border enforcement reduces smuggling activity whereas, improved inland monitoring *only* might induce non-smugglers to take up smuggling.

We use a similar source-destination analytical structure involving migration (also see, Woodland and Yoshida, 2006), for isolating smugglers from traffickers. Instead of beginning with the usual policies adopted for curbing illegal immigration, we consider a standard tax-unemployment benefit approach. Not surprisingly, empirical evidence connecting illegal immigration to tax and unemployment benefit is unavailable. The utility function of an unskilled native or legal immigrant is our basic premise. We assume that it represents the social utility function as far as illegal immigration is concerned.⁷ Choice of an optimal tax required to fund inland monitoring against illegal workers (given an exogenous level of unemployment benefit declared by the government) determines the level of penalty that should be imposed on local employers and traffickers. Note that, both local employers and traffickers hire illegal workers, but there are subtle differences. The local employer is either informed or not informed about the resident status of the worker – unless racial profiling is a dominant characteristic of such equilibrium – but the trafficker is certainly aware of it. Now, the determination of optimal tax borne by the legal workers and the levy of penalty on employers of illegal workers together should determine the market-clearing wage for illegal workers. Using these, one obtains the payoffs of traffickers and smugglers. A migrant smuggler or ‘coyote’ only aids in border crossing services and leaves the illegal migrant to find support on his own (usually in local

⁷ Indeed, it may explicitly include concerns for illegal immigrants but this is currently bypassed.

farms). Traffickers, as already defined, control the activities of smuggled individuals, keep them in captivity and extract rents above the fee for border crossing. Acting as a smuggler exposes the agent to border control only, whereas a trafficker faces internal interdiction in addition to border control. If successful, the additional risk pays off as higher rent extracted from the trafficked migrant used as forced unpaid labor. At the point where the returns from the act of smuggling and trafficking are identical, an agent is indifferent between the two. Those who command greater power of rent extraction end up being traffickers and others distributed with rent extracting power lower than the critical level shall become smugglers. As a second best policy, it should help to reduce the number of traffickers in this system from the demand side.

On the supply side of the model the prospective immigrant from the developing country is asymmetrically informed about true identity and exploitative power of smugglers and traffickers (the excerpt refers to this characteristic). They make decisions on whether or not to migrate depending on expected share of smugglers and traffickers. The expectation is an important criterion for determining expected income of a potential illegal migrant in the foreign country.

Given this intuitive set-up, we consider a policy. Assume an exogenous increase in the rate of unemployment benefit. As the government finances inland monitoring via resources generated from penalty (with a positive probability perpetrators are captured, and otherwise), a rise in committed unemployment benefit may only be covered by a higher penalty imposed, given the tax revenue already collected. This, in turn must lower illegal wage. Since the employers of illegal workers now face higher penalty, they transfer the burden to the illegal workers in terms of lower wage. A lower wage should dissuade illegal migrants and is also expected to lower profits of both smugglers and traffickers due to scale effect. However, agents

who command a high exploitative power shall remain in business and the rest will either turn to smuggling or go out of business. With a lower wage and a higher possibility of matching up with traffickers, lowers expected foreign income and it should desist inclinations to migrate illegally. Thus, it is possible to lower exploitation from illegal migration with a standard labor market policy usually in practice in most destination countries.

In poor countries, the prospect of illegal migration often comes at a very high cost, including sale of land and other assets in order to finance illegal border crossing. Lower foreign expected income compared to the high cost borne by a potential migrant is likely to create disincentives for migration. Of course, an exogenous rise in the unemployment benefit may not meet with success if looked at in isolation or from the perspective of the entire labor market. It is the budget constraint of the recipient country that dictates the optimal penalty imposed, which in turn is directly proportional to the commitment on unemployment benefit. The higher unemployment benefit and the higher penalty create dual pressure on the employers of illegal workers. Overall, under plausible conditions, the policy may turn out to be welfare improving at both ends.

3. Concluding Remarks

In the entire literature, standard deterrent policies involve the perpetrators, the direct victims and the government representing interests of various sections of the population – the capitalists, large farmers, skilled workers, etc. Policies to control illegal immigration run into complicated domains of lobbying, human rights or bilateral treaties between countries. In related studies, general well being of trafficked and exploited workers (Di Tommaso *et al.*, 2009), creation and sustenance of illegal immigration and bonded labor (Epstein, Hillmann and Weiss,

1999; Genicot, 2002), specific implications of minimum wage on illegal immigration (Epstein and Heizler, 2007; Tapinos 1999, 2000), ban on prostitution (Akee et al. 2009), migration reforms and amnesty (Espstein and Weiss, 2001; Chau, 2001; Karlson and Katz, 2004) and debt contract and persistence of exploitation (Friebel and Guriev, 2006) have been discussed.

This review and the brief analytical discussion need substantially more empirical observations to help concrete policy prescriptions. According to Antonio Mario Costa (UNODC), “what counts mostly is the exploitation that takes place at several points along the chain as the human trafficking takes place and that is repetitive and prolonged” (BBC, 2008). Many UN member countries have not yet ratified the Anti-Trafficking Protocol, and not much is known about the scale of activities. The efforts from academics, politicians and policy makers nevertheless offer a rich set of cases and policies, which eventually must lead to better outcomes than the second best policies discussed all through this review.

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Appendix 1

Table A.1. Country Index and Achievements for United Nations 3P

| Code | Country | Year | Prosecution | Protection | Prevention | Overall 3P |
|------|-------------|------|-------------|------------|------------|------------|
| AFG | Afghanistan | 2000 | | | | |
| AFG | Afghanistan | 2001 | 1 | 1 | 1 | 3 |
| AFG | Afghanistan | 2002 | | | | |
| AFG | Afghanistan | 2003 | 2 | 3 | 3 | 8 |
| AFG | Afghanistan | 2004 | 3 | 3 | 3 | 9 |
| AFG | Afghanistan | 2005 | 3 | 2 | 3 | 8 |
| AFG | Afghanistan | 2006 | 2 | 2 | 3 | 7 |
| AFG | Afghanistan | 2007 | 2 | 2 | 2 | 6 |
| AFG | Afghanistan | 2008 | 2 | 2 | 2 | 6 |
| AFG | Afghanistan | 2009 | 2 | 2 | 3 | 7 |
| BGD | Bangladesh | 2000 | 4 | 3 | 3 | 10 |
| BGD | Bangladesh | 2001 | 4 | 3 | 3 | 10 |
| BGD | Bangladesh | 2002 | 5 | 3 | 4 | 12 |
| BGD | Bangladesh | 2003 | 5 | 2 | 3 | 10 |
| BGD | Bangladesh | 2004 | 5 | 4 | 3 | 12 |
| BGD | Bangladesh | 2005 | 5 | 3 | 4 | 12 |
| BGD | Bangladesh | 2006 | 5 | 3 | 3 | 11 |
| BGD | Bangladesh | 2007 | 5 | 3 | 3 | 11 |
| BGD | Bangladesh | 2008 | 5 | 3 | 3 | 11 |
| BGD | Bangladesh | 2009 | 5 | 3 | 3 | 11 |
| IND | India | 2000 | 4 | 2 | 2 | 8 |
| IND | India | 2001 | 4 | 3 | 3 | 10 |
| IND | India | 2002 | 4 | 3 | 3 | 10 |
| IND | India | 2003 | 5 | 2 | 3 | 10 |
| IND | India | 2004 | 5 | 3 | 4 | 12 |
| IND | India | 2005 | 4 | 3 | 2 | 9 |
| IND | India | 2006 | 5 | 3 | 2 | 10 |
| IND | India | 2007 | 4 | 2 | 2 | 8 |
| IND | India | 2008 | 4 | 2 | 3 | 9 |
| IND | India | 2009 | 4 | 2 | 3 | 9 |

Table A.1. Country Index and Achievements for United Nations 3P (contd.)

| Code | Country | Year | Prosecution | Protection | Prevention | Overall 3P |
|------|-----------|------|-------------|------------|------------|------------|
| NPL | Nepal | 2000 | 4 | 3 | 3 | 10 |
| NPL | Nepal | 2001 | 4 | 4 | 3 | 11 |
| NPL | Nepal | 2002 | 4 | 3 | 3 | 10 |
| NPL | Nepal | 2003 | 4 | 3 | 3 | 10 |
| NPL | Nepal | 2004 | 5 | 3 | 4 | 12 |
| NPL | Nepal | 2005 | 5 | 3 | 3 | 11 |
| NPL | Nepal | 2006 | 5 | 3 | 3 | 11 |
| NPL | Nepal | 2007 | 4 | 2 | 3 | 9 |
| NPL | Nepal | 2008 | 4 | 2 | 3 | 9 |
| NPL | Nepal | 2009 | 4 | 2 | 3 | 9 |
| PAK | Pakistan | 2000 | 2 | 2 | 1 | 5 |
| PAK | Pakistan | 2001 | 3 | 2 | 3 | 8 |
| PAK | Pakistan | 2002 | 4 | 2 | 3 | 9 |
| PAK | Pakistan | 2003 | 4 | 2 | 2 | 8 |
| PAK | Pakistan | 2004 | 5 | 4 | 4 | 13 |
| PAK | Pakistan | 2005 | 5 | 2 | 4 | 11 |
| PAK | Pakistan | 2006 | 5 | 2 | 3 | 10 |
| PAK | Pakistan | 2007 | 5 | 2 | 3 | 10 |
| PAK | Pakistan | 2008 | 4 | 2 | 2 | 8 |
| PAK | Pakistan | 2009 | 4 | 2 | 4 | 10 |
| LKA | Sri Lanka | 2000 | 4 | 3 | 3 | 10 |
| LKA | Sri Lanka | 2001 | 4 | 2 | 3 | 9 |
| LKA | Sri Lanka | 2002 | 4 | 3 | 3 | 10 |
| LKA | Sri Lanka | 2003 | 4 | 3 | 3 | 10 |
| LKA | Sri Lanka | 2004 | 4 | 3 | 3 | 10 |
| LKA | Sri Lanka | 2005 | 4 | 2 | 3 | 9 |
| LKA | Sri Lanka | 2006 | 4 | 2 | 3 | 9 |
| LKA | Sri Lanka | 2007 | 4 | 2 | 3 | 9 |
| LKA | Sri Lanka | 2008 | 4 | 2 | 3 | 9 |
| LKA | Sri Lanka | 2009 | 4 | 2 | 3 | 9 |

Source: Cho, Seo-Young, Axel Dreher and Eric Neumayer (2011).

Note: Prosecution: Score 1 (worst) to Score 5 (best); Protection: Score 1 (worst) to Score 5 (best); Prevention: Score 1 (worst) to Score 5 (best). **Overall Index:** Overall 3P. Score 3 (worst) to Score 15 (best).