

# **Measuring the Number of Trafficked Women in Cambodia: 2002**

## **Part –I of a Series**

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## ABSTRACT

A commonly held and oft repeated belief is that it is difficult or impossible to know the extent of trafficking throughout the world. Such statements are often followed by pronouncements of the "estimated" numbers of persons trafficked. If the numbers are difficult or impossible to obtain, then where did these "estimates" come from? In attempting to trace the "estimates" back to the methods that produced them, it appears that many and perhaps most may be little more than wild guesses, or even pure fabrications. Once published, this initial publication of the "estimate" is cited by other publications as the source, and the numbers, whether fabrications or valid measurements, take on a credibility of their own. Steinfatt (2002) demonstrated that accurate scientific estimates of the number of workers in foreign oriented sex work venues in Thailand can be calculated. Hard numbers on sexual trafficking can also be obtained.

We used a geographic mapping technique with motorcycle taxi (moto) drivers, of the type pioneered by Sittitrai, Brown, et al. (1993), to enumerate major sex work venues in Phnom Penh, Cambodia. The enumeration was followed by multiple interviews at each such venue to establish numbers of workers and approximate proportions of indentured workers. The counts of nightclubs, karaoke parlors, and discos in Phnom Penh by the Municipal Tourism Department were then used as a measure of the number of smaller venues. To estimate trafficking at minor venues throughout the city that might have been missed by the first two methods, we enumerated the city blocks in Phnom Penh by actual count, and again by counting the blocks on a published map, achieving the same result within 1.1%. We then selected a random sample (N = 44) of the blocks and observed each, to locate sex work venues. Interviews were again used to count workers and determine indentured proportions on these blocks. The mean number of workers in observed small locations was used to provide an estimate of the total number of workers in smaller venues. UNDP (2000) estimates of the number of sex work establishments along national highways were incorporated into the estimates. The number of sexually trafficked persons in Phnom Penh was then established from the number of sex workers and indentured proportions within a narrow range, using the standard error of the estimate and a 95% confidence interval.

We argue that an upper limit can be placed on a point-in-time estimate of the number of persons sexually trafficked into Cambodia, when our data are systematically applied to Cambodian cities, and combined with other studies such as the mapping studies of sex work establishments along Cambodia Routes 1 and 5 conducted by the UNDP (2000). We argue further that non-sexual trafficking of persons likely adds only a small percentage to the number of persons trafficked.

This report is Part-I of a series on trafficking in SE Asia that is the result of (a) interviews with Vietnamese families conducted between 1990 and 1996; (b) with Vietnamese workers in Cambodian brothels conducted between 1996 and 2002; (c) with Cambodian cyclo and moto drivers conducted in May and June, 2002; (d) using UNDP counts and accepted population figures for Cambodia; and (e) a sampling of the city blocks of Phnom Penh. The series summarizes the process whereby young Vietnamese women cross the border into Cambodia to serve as indentured workers in the Cambodian sex industry. This report (Part-I) offers point-in-time measures of the size and extent of the trafficking. Using a Geographic Mapping Technique and GPS coordinates, the data generated also provides an accurate location analysis and numerical count of the number and type of sex workers within a 20 km radius of Phnom Penh, where the greatest single concentration of Vietnamese and Khmer sex workers in Cambodia is located.

## INTRODUCTION

The people of this world are faced with serious problems. Among the most serious are the economic inequalities among geographic areas. Religious, ethnic, and political differences often add to the economic problems. These factors combine to produce a climate such that individuals in dire straits in one geographic area are motivated to move to a different area to seek better economic circumstances, sometimes together with increased social, religious, and political freedoms.

Such situations are familiar to the people of the United States. This country was founded on these premises – that persons have a right to leave one geographic location such as England, and come to another, such as the colonies, to seek life, liberty, and the pursuit of happiness. Recognition of these forces is embedded in the structure of U.S. immigration laws, which distinguish between economic refugees, and those fleeing for reasons of religious, ethnic, and political persecution.

Persons who flee one land area for another are often not well educated nor well traveled. They communicate with others who have, or claim to have, greater experience with the world and with travel to more friendly economic, religious, ethnic, social, and political climates. Since this advice is of potential value to the travelers, those who possess it may request payment for it. Even persons of greater education and experience, e.g. Westerners with money, often employ travel agents and agencies that are believed to understand the transportation and accommodation choices they desire. Such travel agents may take economic advantage of the traveler or they may be honest brokers. In the worst of cases, especially with the economically disadvantaged, such agents may engage in trafficking. Persons may be induced to travel by force, fraud, or coercion and used as indentured labor. Children may be trafficked for sexual purposes.

The U.S. government defines **trafficking** in terms of *knowingly obtaining by any means – often by force, fraud, or coercion – any person for involuntary servitude or forced labor. Trafficking for sexual exploitation* is defined in the (U.S.) Victims of Trafficking and Violence Protection Act of 2000 as *trafficking in which a commercial sexual act is induced by force, fraud, or coercion, or in which the person induced to perform such act has not attained 18 years of age* (Department of State, 2001).

### Questionable “Estimates”

Any measurement, any estimate, is worth no more than the methods used to produce it. If we do not know the methods then we have no way of determining the worth of the estimate. References to a “rigorous methodology” which do not specify what that methodology is, are in fact equivalent to producing mere guesses through no reliable method whatever. For a method to be rigorous it must be fully explicated since non-replicable methods are inherently non-rigorous.

The *NGO Statement to the 2001 Consultative Group Meeting On Cambodia* contains the following statement:

Child prostitution and child trafficking have become grave problems in Cambodia. In Phnom Penh, there are an estimated 10,000 - 15,000 child prostitutes (NGO Statement, 2001).

Who produced these estimates and by what method? Are they simply guesses or was any form of scientific methodology used to measure the numbers presented as estimates? The NGOs may – or may not – be well meaning, but the credibility of their position is not enhanced by printing numbers that have no method of verification.

Similarly, Perrin, Majumdar, Gafuik, and Andrews (2001) use the term *sex slave* for victims of sexual trafficking in their report for their Future Group *The Future of Southeast Asia: Challenges of Child Sex Slavery and Trafficking in Cambodia*. They state:

It is exceedingly difficult to determine accurate figures for the number of sex slaves in Cambodia as a result of six factors:

- Illicit nature of the sex trade
- Transience and trafficking of sex slaves
- Demographic data on the population alone is not well known
- Security risks of monitoring or recording data about number of sex slaves through direct observation
- Information becomes rapidly obsolete due to the constant flow of victims in the sex trade and evolution of the problem
- Blurring of lines and differences in definitions between which types of women and children are considered to be sex slaves (Perrin, et al., 2001, pp. 11 - 12).

These six factors are considered in more detail in the Discussion, below. Notwithstanding these stated difficulties, the six factors did not dissuade Perrin, et al. from providing guesses, of unknown and unstated origin and thus unknown veracity, as to the size of the problem.

Despite these significant challenges, ranges of figures on the size of this problem in Cambodia have been made public. On the higher end, it is estimated that there are between 80,000 to 100,000 prostitutes and sex slaves in Cambodia. By far the lowest statistic for the number of prostitutes and sex slaves in Cambodia is between 40,000 to 50,000. With a population of just 10-12 million, Cambodia's sex slave and prostitution problem is enormous. Indeed, more than 1 in 150 people in Cambodia are sex slaves or prostitutes (Perrin, et al., 2001, p. 12).

Perrin, et al. state that they obtained their estimates by asking persons associated with trafficking to estimate its extent:

The most credible experts on this issue who deal with sex slavery, trafficking or associated consequences of these problems were approached to complete an interview. Many of these individuals face this problem on a daily basis and have been active in this area for years or even decades (2001, pp. 5-6).

How Perrin, et al., came to know how to recognize credible experts *on trafficking numbers*, an area in which they themselves were not expert, is left unstated. The key point is that no scientific studies were done either by the Perrin group or by anyone that Perrin's Future Group interviewed.

This process of asking people who work for an NGO or governmental agency in a specific content area how big they think a problem is, may be likened to asking expert baseball players of long standing to estimate the number of persons currently playing baseball in their country. Being expert at baseball does not imply knowledge or credibility concerning the number of baseball players. Without a scientific study to back up the estimate, players can offer no more than a wild guess even though they are quite familiar with the game of baseball, with many other baseball players and managers, and with the lore of baseball which may contain a 'number of players' guess that 'everyone knows is true.' The average of a set of wild guesses is simply an average wild guess. It does not take much effort to "make public" a wild guess, and then have a second party refer to this guess as a "statistic," attempting to provide the guess with an aura of credibility.

Perrin, et al., then relied on such guesses to produce a similarly unfounded statement:

It can be expected that at least 1 in 40 of children born in Cambodia will be sold into sex slavery. The number of sex slaves and prostitutes has peak (*sic*) and has normalized as a well-established phenomenon in Cambodia (Perrin, et al., 2001, p. 12).

They go on to state that there were 17,000 sex slaves in Phnom Penh in 2001, with 80,000 throughout Cambodia (Perrin, et al., 2001, p. 12).

The claim of 80,000 has no scientific basis. A rationale for why the process is presumed to have peaked is not presented. The claim concerning Cambodian children has no basis in fact, and is little more than a slur on the government and the people of Cambodia. The claim of 17,000 sex slaves in Phnom Penh also has no basis in fact. It assumes that essentially all sex work in Cambodia is forced, and thus constitutes “sex slavery.” In addition, the statement falsely assumes that if there are “sex slaves in Cambodia” that they must have been born in Cambodia. Thus, none of these claims made by the Future Group has an empirical or even a necessarily rational basis. This did not dissuade *The Calgary Herald* from publishing these estimates, nor news sources from around the world from reprinting the speculations as fact, much to the international discredit of Cambodia.

In addition to the problem of wild guesses is the problem of self interest in the size and direction of these guesses. Claims of large numbers of “sex slaves” often have inherent worth to the claimants, since their budgets may be dependent on the beliefs of donors as to the size and nature of the problem. If persons with a financial stake in the outcome are allowed to create the numbers that affect the size of these donations, then the recipe and motivation for cheating have been created.

It appears to be common practice in statements about trafficking to claim that estimating the number of persons trafficked into sexual labor is difficult to impossible, and then to present unfounded guesses as to these same estimates as though they were numbers to be relied upon. Such practice violates both common sense and scientific methods of measurement. Scientific measurement is based on the concepts of validity and replicability. If a process actually measures what it intends to measure it is said to be valid. If others can use the same empirical methods to produce the same results, then the numbers empirically produced have scientific reliability.

The numbers produced by scientific methods of measurement are not always absolutely accurate. Occasionally, flaws in the method produce under or over estimates. Factors are sometimes ignored in scientific studies that could change the outcome. But scientific methods offer a verifiable system open to anyone who wishes to corroborate the numbers and a confidence to a specifiable degree, often 95% confidence, that the estimates are no greater or less than certain limits calculated on the basis of mathematical probability theory. If a method is truly rigorous then it is completely explicit, open, and transparent. Exactly what went into the estimates is open for everyone to see, and if an important factor has been left out, that can be seen and corrected in the next study. If the numbers produced by a study are not attached to a completely stated, replicable method by which they can be reproduced, then claims made based on these numbers are nothing more or less than pure propaganda (Steinfatt, 1979).

The key element of scientific estimates is a detailed statement of methodology with no gaps in the statement that require guessing, such that any trained social scientist could follow that method in attempting to replicate the results. Asking people a question, people who have no way of knowing the answer to the question, and then representing these answers as data – which is the method used by Perrin, et al. (2001) – has no scientific validity as a measure either of the number of sex workers or of the number of trafficked persons in Cambodia. Simply because someone has worked with former sex workers and may be expert in that area does not provide that individual with any necessary knowledge of the scope of the problem aside from the narrow slice of reality open to that individual to observe.

### **Definitional Considerations**

The definition of a sex worker partially determines the size of the estimated number of such workers. In any Western culture women go out without dates, they meet men who buy them drinks and dinner, and occasionally they go home and have sex. They received something of value in exchange for sex. Are such women to be counted as sex workers? We did not count them as such in this study since, if they were to be counted as such, a very large proportion of females in Western countries would also have to be

classified as sex workers. Definitions of who is and is not a sex worker must be consistent, and not country or culture dependent, or else cross-country and cross-cultural comparisons become meaningless. **Sex workers** were defined for this study as individuals available to sell sex, in an establishment or area in which sexual services are commonly sold.

The *time nature* of the estimate also affects its size. A *point-in-time estimate* (the number of persons currently engaged in sex work at a specific point in time) will be lower than a *per-year estimate* (the number of persons who ever worked in a year), which will be lower than a *lifetime ever-worked estimate* (the number who ever worked in their lifetime). These issues are covered thoroughly in Steinfatt (2002, pp. 17 – 22, & 134 – 144). We present *point-in-time estimates* in this report. The estimate we present of the proportion of workers indentured, is a point-in-time estimate of the number of current workers ever indentured.

## METHOD

### Geographic Mapping Study – Major Locations

What is the extent of trafficking for sexual exploitation in Cambodia? We began attempting to answer this question by using the method of Sittitrai, Brown, et al., (1993) to form a geographic map of the location, number, and type of sex workers in large venues within a 20 km radius of Phnom Penh. Sittitrai, Brown, et al., used an overlay technique where two independent maps were produced of establishments offering sexual services in Bangkok, Thailand, in 1992. In that study, one map indicating the location, establishment type, and number of workers, was produced by academic researchers in Thailand who study the sex industry. A second such map was produced independently by a snowball sample of workers in the Thai sex industry. The snowball sample was allowed to grow until no new establishments were being added to the map. A comparison of the two mappings yielded a 95% overlap (Steinfatt, 2002, Table 2.1, pp. 18 - 19).

The Phnom Penh study varied these procedures for several reasons. First, while some foreign workers in Bangkok, largely Chinese and Russian, are not free to choose their work location, Thai sex workers in Bangkok in general are mobile free agents and able to select the most advantageous work location for themselves. Thus they tend to know sex work locations other than their own. But some sex workers in Phnom Penh who are principally Vietnamese, are not free to choose their location, and such workers are aware primarily of their own area plus a few others nearby. In addition, there was no group of academic researchers available at the time of data collection to produce additional mappings of Phnom Penh, aside from the authors. Thus a different application of the mapping technique was employed.

In order to obtain an initial mapping, cyclo drivers in different parts of the city were asked to produce a map by driving researchers to sex work locations. Taxi drivers in any urban area of the world are generally quite familiar with locations of sex areas in their territory, since they make money from both passengers who want to go there and from the business, which may give them a kickback from the customer's payout. After the first three cyclo drivers produced maps, it became apparent that each driver was familiar primarily with his own territory, and had a range sufficiently limited that each was unable to produce more than a few locations. Thus, only moto drivers were used to obtain the initial mapping of major locations. These drivers had a greater range and were more likely to be hired by persons such as foreigners who would not know these locations.

In June of 2002, ten motorcycle taxis were hired from different areas within Phnom Penh. Each driver was asked to show the passenger every major location in the city where sex could be purchased. The inclusion of "hidden" locations not often visited, was emphasized. It was made clear that these locations

must include places where the poorest of the poor might buy sex, as well as the rich and foreigners. The driver then took the passenger to each of the locations known to him. This occupied the better part of a day for each driver. Some of the locations consisted of individual buildings and businesses, while others were collections of multiple structures and businesses. The first three drivers each produced a map by this method that included 90% or more of the large locations known to the other two. The following seven drivers were unable to add any new large locations beyond those produced by the first three drivers. Three automobile taxi drivers were also unable to add additional locations to those obtained from the moto drivers. On this basis, the moto drivers' map of large venues was assumed to be essentially complete. We refer to these venues as *major* locations, since they employed many workers, were well known to drivers, and were relatively easy to locate for anyone hailing a motorcycle taxi, the common method of transportation in Phnom Penh.

### Observation Counts and Management Interviews

The number of individual businesses operating in each mapped major venue area was recorded and each was visited. After arrival at each major venue, the driver was instructed to enter each business and count the **number of workers observed** (*nOb*). He was then to present this number to the manager and state that he was scouting this venue and wondered if there were only *nOb* workers, or if there were others that worked there even on a part time basis. The **number of total workers given by the manager** (*nMn*) was noted and recorded. The driver then asked the manager about the price structure, which was recorded. The **proportion of Khmer, Vietnamese, and workers of other ethnicities** were also requested and recorded (*pKm*, *pVn*, *pOth*). The driver then asked **how many of the workers were or had at one time been working off a debt or were otherwise not free to leave** (*pIndt*), as some customers were particularly interested in being with such workers. Managers usually have knowledge of which workers have had prior contracts. This method was used at each business on at least three separate days, at different times during working hours, by three separate drivers. Only two drivers were used in each establishment where venues consisted of more than one business. Previous studies in Thailand have established management estimates given to potential customers or their representatives as a valid method of obtaining such counts (Steinfatt, 2002).

Observation counts were conducted of proportions of Khmer, Viet, Other Asian, and Western customers entering each of the venues during business hours. Both Western and Khmer judges were used, with each venue observed on at least three occasions for at least four hours at each observation session by at least three judges. Judgments of customer ethnicity were based on manner of dress and language spoken.

### Reliabilities

*nMn* was always larger than *nOb*, and *nMn* was used as the best high-side estimate of number of workers, *nW*. In almost all cases the different managers' statements of *nMn*, *pKm*, *pVn*, *pOth*, and *pIndt*, were within 95% of each other. In only three establishments were these agreement proportions as low as 92%. In two of these cases the agreements were 91% and in one case they were 90%. The average of the estimates was used for *pKm*, *pVn*, *pOth*, and the highest estimate was used for *pIndt*.

### Local Government Counts

In addition to the well-known major sex work locations mapped by the moto drivers, many smaller local oriented venues exist throughout the city. The Municipal Tourism Department counts the number of nightclubs, karaoke parlors, and discos in Phnom Penh. These counts include many such small locations frequented largely by persons living or working nearby, as well as the larger and better-known venues

located through the moto drivers. The MTD counts were used to estimate the number of small venues by subtracting from these counts, the known number of businesses of these three types operating in the major venues. The result of the subtraction was used as a measure of the number of small venues. Several major venues consisted of many small businesses clustered together along a street. The mean number of workers obtained in each type of small business in the major venues – nightclubs, karaoke parlors, and discos – was used as an estimate of the number of workers in the same type of small business in similar smaller venues.

## City Block Sampling

While the government makes every attempt at accuracy in its counts of nightclubs, karaoke parlors, and discos, this method will miss locations such as car washes and small local guest houses, and other businesses some of which occasionally employ sex workers, as well as private homes. We wanted to locate these other minor venues as well as those already identified, in order to provide a better estimate of the total number of workers in Phnom Penh.

Since it would be impossible to locate every individual sex worker – in any city in the world – the city blocks in Phnom Penh were selected as sampling units and the number of blocks was enumerated. Two counts were obtained, one by visual inspection during the venue enumeration, and a second by counting the number of blocks on an updated, detailed city map, including new housing encroaching on Boeng Kak Lake. The two counts varied by only 1.9%, and the larger of the two was selected for use. The blocks were numbered for sampling purposes and a sample of  $N = 44$  city blocks selected using a computer-generated table of random numbers and sampling randomly from it. Each of these 44 blocks was subjected to intensive study. Two Khmer, one Vietnamese, and one Westerner each observed each block for a total observation period of no less than 48 hours. In addition to these observations, conversations were struck up with local people about unusual numbers of comings and goings on the block, and possible sex venues were pursued. All locations that could have involved one or more individuals charging for sexual services were approached by an observer whose culture was similar to that of the individuals in the business. When located, the numbers of workers, their ethnicity, approximate ages, and their state of indebtedness was sought and recorded for each location.

## RESULTS

### Phnom Penh

#### Venues Located

**Major Venues.** Twenty-two major sex work venues were located and charted on the motorcycle-driver generated map. These locations included brothels and brothel areas, massage parlors, street pick-up areas, apartments, hotels, restaurants, nightclubs, discos, bars including those with beer promotion girls, and karaoke parlors (many of which still operated despite the ban on nightclubs, karaoke parlors, and discos still in force during data collection). These 22 are all large locations with twenty or more workers. Some are areas with hundreds of workers spread across many individual businesses.

**MTD Venues.** The Municipal Tourism Department currently lists some 1,052 nightclubs, karaoke parlors, and discos in Phnom Penh, with about 860 of them closed by the Prime Minister's order in 2001 due to drugs and violence. Many continued to operate under tighter security. The 22 major venues surveyed contained 22 such establishments currently doing business, and 26 closed such establishments. If all 1052 are presumed to be operating then the additional number of establishments beyond these 22 would be  $1052 - 22 = 1030$ . If 860 are presumed closed then the additional number is only 170. To determine a reasonable estimate of the number of additional open venues, we used the proportion of open businesses to the total



number of such businesses within the 22 major venues, 45.8% [ $22/(22 + 26)$ ]. It is a reasonable estimate of the proportion of open MTD-counted establishments in June, 2002. We estimated the number of open establishments to be the total number of such establishments, times the proportion open, or  $(1052 \times .458 = )$  482.

**City Block Sampling Venues.** Observation of the 44 randomly selected city blocks yielded an additional 4 sex work locations, all smaller and all locally oriented within Phnom Penh and not among the three MTD categories, or an average of .09091 locations per block. The 44 blocks were 3.026% of the 1454 enumerated city blocks in Phnom Penh. The 4 locations found were thus multiplied by 33 ( $1/.03026$ ) to obtain an estimated additional 132 venues throughout Phnom Penh (or  $.09091 \times 1454$ ). The size of the upper 95% confidence interval for these data is 125 (S.E.Mn = 0.04384;  $1.96 \times .04384 = 0.0859$ ;  $0.0859 \times 1454 = 124.9$ ), (Blalock, 1972, p. 206), suggesting that the actual number of additional minor locations is unlikely to be more than 257 ( $132 + 125$ ), with 132 the most likely value.

This process produced a final count of  $(22 \text{ major} + 482 \text{ smaller} + 132 \text{ minor} = )$  636 as the best estimate of the number of locations operating sex work businesses in June, 2002, with multiple business at the major locations, and individual businesses at the smaller and minor locations. If all 1,052 MTD-located venues were assumed to be operating, which they were not, then there would be  $(22 \text{ major} + 1052 \text{ smaller} + 132 \text{ minor} = )$  1,206 total locations as a high-end overestimate of the number of operating MTD counted venues.

The basis for this line of reasoning goes beyond statistical considerations and to the nature of commercial sex as a business: it requires customers. For a sex business to stay in business, a relatively large base of customers is necessary or the business will fail (Steinfatt, 2002, pp. 7 - 9). Only some individuals in any society are customers of commercial sex. All such customers seek sex only occasionally, some more often and some less often. All customers have multiple locations available to them. And some locations are preferred over others based on tradition ("That's just where we go") and preference. If a potential commercial sex location is so obscure that no one knows of it and it cannot be found, then it will cease to exist. Even "hidden" venues need to be known to a sufficiently large number of repeat customers that their location will be known to many people. Moto drivers make it their business to know even supposedly "hidden" locations large enough to bring tourists to. The MTD is interested in all such locations, and our city block sampling method should estimate the number of remaining locations. Thus, the proportion of locations not found, and the number of workers at such locations, is likely to be very small, and the MTD counts should produce a high-side rather than low-side estimate. The 44 block sample provides a reasonable 'snapshot' of the small locally oriented sex venues that exist outside of the major hotspots and the nightclub-karaoke-disco circuit of smaller places.

The 22 major locations and 4 of the minor locations were observed directly for a total of 26 observed locations. The percentage of venue types and the percentage of workers at the 26 known locations are provided in Table 1. Some venues could be classified in different ways since they were, for example, hotels, with a restaurant, that also offered karaoke. Each venue was classified only once in Table 1, according to the activity that appeared to be the principal draw for customers.

## **Workers Located**

The 22 mapped major locations held 2,309 workers, with 19 other workers found at the four minor locations observed, for a total of **2,328**. The observed small karaoke/nightclub-type businesses within the 22 major venues averaged 4.8 workers in each. The 482 estimated additional MTD venues were multiplied by this 4.8, to yield an additional 2,314 estimated workers. (If the overestimate of 1,206 operating locations were used in place of 482 it would yield 5,789 estimated workers). The four minor locations averaged 4.75

workers. When 4.75 is multiplied by the 132 additional locations in Phnom Penh estimated by the City Block Sampling it yields another 627 workers. By addition,  $2,309 + 2,314 + 627 = 5,250$  which is the best point-in-time estimate of the total number of sex workers in Phnom Penh. Using the upper 95% confidence interval value of 257 in place of the best estimate of 132 additional locations would produce an estimate of 5,844 [ $2,309 + 2,314 + (257 \times 4.75)$ ] as the number of additional workers.

Even the figure of 5,250 is likely to be slightly inflated by double counting of sex workers. Hotels and guest houses inside the city often borrow workers from another establishment such as a brothel for a fee, rather than housing their own independent set of workers. And some workers from brothel areas commonly travel on their own to bars and nightclubs when business is slack in their primary area. If the *overestimate* of 1,206 locations is used, the 5,250 becomes ( $2,309 + 5,789 + 627 =$ ) 8,725. The 8,725 provides a considerable upper-bound overestimate of the actual number of sex workers in Phnom Penh, since it includes in it workers and workplaces currently not in existence, and also overestimates due to a degree of double counting.

<b>Table 1</b> <b>Distribution of Observed Venues</b> <b>and Sex Workers</b> <b>in Phnom Penh, June 2002</b>		
<i>Type of Venue</i>	<i>Percentage of Venues</i>	<i>Percentage of Workers</i>
Bars/Nightclubs/ Karaoke/Discos	19.2	25.1
Restaurants	7.7	5.0
Apartments/Homes	11.5	7.8
Massage	7.7	11.7
Hotels/Guesthouse	15.4	9.0
Brothels	30.8	30.7
Streetwalkers	7.7	10.7
<i>Observed</i> Ns at 26 Venues <sup>1</sup>	N = 26	N = <b>2,328</b>
<i>Estimated</i> Total Ns <sup>2</sup>	N ~ 636	N ~ <b>5,250</b>

<sup>1</sup> Observed values.

<sup>2</sup> Number of estimated small venues and their workers throughout Phnom Penh + observed values.

## Worker Ethnicity

Ethnicity and indentured status were recorded for 2,058 of the 2,328 observed workers of Table 1, with 1,053 identified as Khmer (51.2%), 966 as Vietnamese (46.9%), and 39 as other ethnicities (1.9%) (see Table 2).

<b>Table 2</b> <b>Distribution of Sex Worker Ethnicity</b> <b>In Phnom Penh, 2002</b>		
Khmer	Vietnamese	Other
51.2%	46.9%	1.9%
N = 2058		

## Proportion of Workers Indentured

Workers were counted as indentured if, through management identification, they were either currently indentured or had been indentured in the past. Most of the workers at the venues observed, 1,416 or 68.8%, were not indentured, while 642 or **31.2%** were indentured. The great majority of the indentured workers were Vietnamese (95.0%), with 63.2% of Vietnamese workers indentured either now or in the past. Another 4.7% of the indentured workers were Khmer; and the remainder were of undetermined origin (see Table 3).

Not all indentured workers are trafficked. Some workers are well aware of the implications of signing an indentured contract and do so willingly. For purposes of this study so as not to miss any possibly trafficked persons, all persons ever trafficked, those with indentured contracts past or present, are counted in Table 3 and throughout this study as currently trafficked.

	Khmer	Vietnamese	Other
<b>Proportion of Total Number of Indentured Workers</b>	4.7%	95%	0.3%
<b>Proportion of Ethnic Category Indentured</b>	2.9%	63.2%	–
N = 642 = <b>31.2%</b> of 2058 <b>Indentured</b>			

## Customer Ethnicity

Across all venues observed, 48% of the customers were Khmer, 11% were Vietnamese customers, 10% were Western customers, and 31% were Asian foreign customers, neither Vietnamese nor Khmer. The latter group was composed largely of Chinese, Japanese, and Singaporeans. *Customers*, as used here, refers only to individuals observed entering an establishment who were not employees of the establishment (see Table 4).

Khmer	Vietnamese	Western	Other Asian
48%	11%	10%	31%

## Age

We did not gather sufficient data on the age of workers in enough establishments to provide reliable estimates. This remains for a future study. It was the impression of the interviewers that most locations did not have children under 16 available for sexual services, but that some clearly did. The number of children working in sexual services in Phnom Penh is necessarily far lower than the total number of workers in Phnom Penh, which is best estimated at 5,250 (Table 1).

## Outside of Phnom Penh

### Other Major Cities

Sex work requires a large population of males in order to flourish. Its venues are not evenly distributed across the countryside. Throughout the world it is found where large concentrations of males are found: in urban areas, along heavily traveled routes, in tourism centers, and near military bases and work locations employing large numbers of males. The larger the urban area or base and the more heavily traveled the route, the greater the likelihood of success for such venues. Phnom Penh is the largest city in Cambodia with 1,133,800 people in 2002 (World Gazetteer, 2002). The principal sex work locations in Cambodia aside from Phnom Penh are the tourist areas of Sihanoukville, Siem Reap, and Poi Pet, and the major roadways of the country such as Routes 1 and 5. Tourist areas are seldom truly rural regardless of their surroundings, since they attract a sizable local population of service workers as well as the tourist population.

One method of estimation for these smaller cities is to assume

(a) proportionality with Phnom Penh.

**The Impact of Tourism.** In addition to this proportionality assumption, tourist destinations usually have proportionally larger sex work areas than those municipalities without large tourist concentrations. We use the term *tourism* loosely, to indicate the presence of foreigners with money. Tourist areas attract more sex workers than the simple increase in population created by the number of tourists would suggest taken by itself. This appears to be true for several reasons. Tourists are less bound by the moral customs of their place of residence when they travel. They often have few contacts with local individuals in their new temporary place of residence who might support “no casual sex” norms, and who might influence them not to participate. A more extensive model of why men do and do not patronize sex workers may be found in Steinfatt (2002, Ch. 13, pp. 303 - 339).

In large cities such as Bangkok or Phnom Penh the impact of tourism on the number of sex workers is masked to an extent by the overall size of the population. About 9% of the number of sex workers in Bangkok is attributable to tourism (Steinfatt, 2002, p. 29). But in smaller cities with economies based largely on tourism – certainly those of 250,000 or less – a much larger effect on the number of sex workers, due to the impact of tourism is apparent. This can be as high as twice the number of workers that would be predicted to exist by the size of the population alone, based on data previously obtained in Thailand as an incidental finding by Steinfatt (2002). In general, the larger the municipality, the smaller the proportional impact of tourism.

Assuming proportionality with Phnom Penh corrected in this way for tourism, the best estimate of the number of workers in Phnom Penh can be used as a reasonable guide to the likely number of workers who would be supported by a population of the given city size. Using 91% of the Phnom Penh number (based on the Bangkok data suggesting about 9% due to tourism leaving 91% as the estimate of the local effect) allows a population-based prediction of the number of workers in Cambodian cities. In Cambodian cities outside of Phnom Penh that are highly dependent on tourism, this 91% prediction can be multiplied by two to account for the maximum predicted impact of tourism on the predicted number of workers. When tourism is down this will produce an overestimate of the number of sex workers. When tourism is high this will produce a reasonable estimate of the number of sex workers.

In attempting to account for the impact of tourism, we used

(b) a factor of 200% as the estimate of the proportional impact of tourism in those smaller cities that depend on tourism as an economic base.

Later empirical studies of Cambodian cities may show this “2 times in small tourist based locations” assumption to be a useful or a poor estimate.

These proportions were applied to the best estimate of the number of sex workers in Phnom Penh (5,250 from Table 1) as follows:

1. 5,250 was multiplied by 91% = 4,777.5 to obtain the local population proportion.
2. A ratio of 4,777.5 to the population of Phnom Penh was calculated (= .0042137).
3. Each city’s population was multiplied by the ratio obtained in 2.
4. The number obtained in 3. is reported as the estimated number of workers in that city, except for tourist cities where double the number obtained in 3. is reported.

The results of these calculations are presented in Table 5. Including the 5,250 estimated workers from Phnom Penh (from Table 1), the best current estimate of the total number of workers in the ten largest cities in Cambodia is 9,874 (see Table 5).

<i>City</i>	<i>Population</i> <sup>1</sup>	<i>Estimated Number of Sex Workers</i>
Phnom Penh	1,133, 800	5,250
Bat Dâmbâng	195,000	822
Siem Reap <sup>2</sup>	142,300	1199 <sup>2</sup>
Sihanoukville <sup>2</sup>	93,000	784 <sup>2</sup>
Prey Veang	70,500	297
Kâmpông Cham	55,600	234
Ta Khmau	50,700	214
Pousat	42,200	178
Poi Pet <sup>2</sup>	42,000 <sup>3</sup>	740 <sup>4</sup>
Takaev	37,100	156
<b>Total</b>	<b>1,862,200</b>	<b>9,874</b>

<sup>1</sup> City population data from *World Gazetteer*, (2002).

<sup>2</sup> Estimate corrected for tourism.

<sup>3</sup> From *The Straits Times* (Singapore), Sunday, July 16, 2000.

<sup>4</sup> From UNDP (2000, pp. 5-6) estimates, using six current casinos.

Using the "two times" method would yield 354 predicted workers.

## Routes 1 and 5

In August and September of 1999, the UNDP conducted a geographic mapping study of HIV vulnerability along Cambodia Highways 1 and 5, from Bavet at the Vietnam border to Phnom Penh (Route 1), and from Phnom Penh to Poipet at the Thai border (Route 5; UNDP, 2000). The document does not report an estimate of the total number of workers, but the published UNDP data allow an estimate to be constructed. The UNDP estimates a high-end number of 20 workers per brothel (2000, p. 6). This was multiplied by the number of brothels along each route outside of Phnom Penh since Phnom Penh vicinity workers are already included in Table 5. A high-end average estimate of 20 workers was also used for karaoke lounges, with 35 as the high-end average for nightclubs and casinos. Poi Pet area nightclubs and casinos also are already included in Table 5. Guest houses tend to have fewer workers and we used a high-

end average estimate of 10 for these. This process is summarized in Table 6. The best current estimate of the total number of workers along Cambodia Routes 1 and 5, outside of Phnom Penh and Poi Pet, is 3,130 (see Table 6). This figure is established through direct UNDP counts of establishments and mean number of workers within these establishments.

<b>Table 6 Number of Sex Work Venues and Estimated Numbers of Sex Workers on Cambodia Routes 1 and 5</b>					
	<i>Route 1</i>		<i>Route 5</i>		
<i>Venue Type</i>	<i>Number of Establishments outside of Phnom Penh<sup>1</sup></i>	<i>Estimated Number of Sex Workers<sup>2</sup></i>	<i>Number of Establishments outside of Phnom Penh<sup>3</sup></i>	<i>Estimated Number of Sex Workers<sup>2</sup></i>	
Brothels	20	400	20	400	
Karaoke	13	260	33	660	
Guest Houses	110	1100	17	170	
Nightclubs/Casinos	1	35	5 <sup>4</sup>	175	
<b><i>Route Total</i></b>		<b><i>1795</i></b>		<b><i>1335</i></b>	
<b><i>Total for Routes 1 and 5 outside of Phnom Penh</i></b>		<b>1795</b>	<b>+</b>	<b>1335 =</b>	<b>3,130</b>

<sup>1</sup> From UNDP (2000, p. 4) counts.

<sup>2</sup> [Establishments located by UNDP (2000)] x [Mean number of workers reported by UNDP (2000)].

<sup>3</sup> From UNDP (2000, p. 6, Table 1) counts.

<sup>4</sup> Poi Pet casinos are counted in Table 5.

## **Additional Highways**

Highways 1 and 5 cover 574 km with the remainder of the national highway system covering 1,446 km. The ratio of kilometers of national highway surveyed by UNDP, to kilometers not surveyed, is 1 to 2.5. Some of the remaining national highways, such as the shorter Route 4 to Sihanoukville, carry traffic loads comparable to Routes 1 and 5. But much of the remainder of the national highway system, such the long and twisting Route 7 to Laos, is far less busy. Consequently, guest houses, brothels, and other businesses are less frequent and further apart on these routes than on the more heavily traveled highways.

In addition, Table 1 of the UNDP study (2000, p. 6) indicates that of the 297 brothels, karaoke lounges, hotels, guest houses, and nightclubs where commercial sex is available along Routes 1 and 5, 106 of these are located in the Russey Keo district on the north side of Phnom Penh, and 222 are either in Russey Keo or Banteay Meanchey, within or on the outskirts of Poi Pet. Thus 74.7% of these sex venues are in or near the larger urban/tourist areas along the route, of Phnom Penh and Poi Pet. This suggests that, at a maximum, about 25.3% of the sex venues along highways in Cambodia are outside of the major metropolitan and tourist areas.

Using the ratio of 2.5 times the mileage of Routes 1 and 5 to estimate the number of additional sex workers on the remaining national highways outside of urban areas would produce (3,130 x 2.5 =) 7,825 estimated additional workers. This would be a clear overestimate due to the lesser traffic and more rural character of much of the remaining national highway system. We believe 1.5 to 2.0 times would be the highest reasonable number. Using the high estimate of 2.0 produces (3,130 x 2 =) **6,260** as a reasonable but high-end estimate of the number of sex workers along the remaining national highways. We believe the

actual number may be substantially lower than this. Future studies are needed to determine an actual count of the numbers of establishments and average numbers of workers in each type along these routes.

### **Remaining Towns, Villages, and Rural Areas**

In addition to the sex venues considered above are those that exist in small towns, villages, and rural roads and areas of Cambodia not on the national highway system. The viability of commercial sex is dependent upon population density, particularly, on a sizable population of potential customers with easy access to the area (Steinfatt, 2002, p. 7). While the great majority of the Cambodian population, over 80%, lives in villages and rural areas, this population is dispersed over a large land area and, except for areas immediately adjacent to major highways, does not achieve the density needed for commercial sex to thrive. Rural Khmer norms opposing commercial sex also work to reduce or eliminate such businesses. Thus, the total number of workers and venues in this remaining area of Cambodia is very small in towns and villages, and declines to nonexistent in rural areas. The high estimate of 6,260 sex workers along the remaining roads and highways provided above, should account for most of the remaining number of sex workers throughout Cambodia. It is quite unlikely that the remaining smaller towns and rural areas could support more than a small additional number of workers since rural areas without major transportation systems are highly unlikely locations for sex businesses, and local rural Khmer custom dictates that such places should not exist. We estimate the maximum number of additional sex workers throughout Cambodia as no more than half of the 3,130 located by UNDP along rural sections of Highways 1 and 5, or **1,565**. Rural males seeking commercial sex do not do so at home. They wait until their travels take them to a highway area or city where such services are available, or they do without.

Summing our best estimates for cities (9,874), highways (9,390) and rural areas (1,565) gives **20,829** as the best estimate of the total number of sex workers of all ages and ethnicities in Cambodia.

### **The Number of Trafficked Persons in Cambodia**

The (U.S.) Victims of Trafficking and Violence Protection Act of 2000 regards trafficking as knowingly obtaining any person for the purpose of involuntary servitude or forced labor. Children under 18 used in sexual labor are always considered involuntary due to lack of ability to consent, and thus are considered trafficked. *Involuntary servitude* is often, but not always, in identity with *indentured servitude*. If we assume these are the same, then the obtained proportion of indentured sex workers can be used to estimate the number of persons trafficked for sexual purposes.

These measures estimate sexual trafficking within and into Cambodia. They do not consider trafficking from Cambodia to other countries, sexual or otherwise since those numbers should be counted for those destination countries. In addition, these numbers assume that there are no cases of voluntarily signing an indentured contract, since all contracted labor is counted as involuntary labor, thus potentially over-inflating the number of workers labeled as trafficked.

In Phnom Penh, we found that 31.2% of the 2,058 workers at observed locations were indentured. There is no reason to believe that this proportion would be higher in other areas of Cambodia, and it is likely to be lower. Phnom Penh is often the first stop for persons sexually trafficked from Vietnam, and 95% of the trafficked sex workers in Phnom Penh were Vietnamese, so this proportion should be considerably lower than 31.2% throughout the rest of Cambodia. Trafficked workers tend to be younger and more attractive than non-trafficked workers and consequently a higher price can be asked. In any commercial situation, as price goes up the number of potential buyers willing to pay that price goes down. In developing countries, potential purchasers of a more expensive product tend to congregate in larger cities and recreational areas. Rural residents, and local residents of smaller cities and towns, have less money and are willing to spend less of it to obtain commonly purchased goods and services. Thus, larger cities, and areas where executives

of larger businesses, foreign businessmen, retired persons with money, and travelers with money tend to congregate, are more likely locations for a profitable business when the asking price and “quality” provided by the businesses are higher. Such conditions are more descriptive of Phnom Penh, Siem Reap, Sihanoukville, and Poi Pet than of other locations in Cambodia with respect to commercial sex.

The best estimate of the total number of sex workers in all of Cambodia was calculated above as 20,829. Thus 31.2% of 20,829, or 6,499, is an overestimate of the total number of persons sexually trafficked in Cambodia. It is inflated by the assumptions that all workers ever indentured were trafficked and are currently trafficked, which is an incorrect assumption when determining the number of individuals currently trafficked. It is also highly inflated by the assumption that a phenomenon that exists in Phnom Penh and recreational locations also exists at the same level throughout Cambodia, when there is no strong evidence of the existence of this effect to any extent outside of these cities and their environs.

The best estimate of the number of sexually trafficked persons would appear to be the number of sex workers in Phnom Penh, Siem Reap, Sihanoukville, and Poi Pet multiplied by the proportion of indentured workers obtained in Phnom Penh. From Table 5, this total is 7,973. Using the obtained indentured proportion of 31.2% yields **2,488** as the best estimate of the number of women and children trafficked to or within Cambodia for sexual purposes, of all ages and ethnicities at any point in time. If the upper 95% confidence value of 8,791 is substituted for 7,973, the upper 95% confidence interval of the number of trafficked women and children becomes 2,743.

## DISCUSSION

The main purpose of trafficking in the view of the trafficker is to make money, as much as possible. Not all trafficking is sexual trafficking. This report does not attempt to estimate the number of persons trafficked for other than sexual purposes, nor numbers of persons who may be trafficked from Cambodia to other countries. However, claims that there are large numbers of trafficked persons outside of sexual trafficking should be considered in light of the methods used to estimate the amount of such trafficking and the economic credibility of the claims.

For example, rural Khmer women working in garment mills on Highway 5 north of Phnom Penh do not command high wages and are not trafficked. Suggestions that large numbers of persons of any ethnicity are trafficked to engage in factory work would have to account for how profits are to be made from such a venture or any similar venture by the trafficker. We found no evidence of such trafficking in interviewing workers from these mills. The mill workers are untrafficked rural Khmer and they do not report the existence of Vietnamese workers or other non-Khmer in the mills. Currently these garment mills are the new economic hotspot of Phnom Penh. Claims of trafficking within Cambodia to other sites and for other economic purposes would have to explain how the money is to be made from these locations and ventures, when the economic hotspot does not seem to involve trafficking. We have seen no evidence of trafficking within Cambodia aside from the trafficking for sexual purposes measured and reported above. We have also seen no evidence of trafficking of persons to Cambodia from other countries for other than sexual purposes.

### Double Counting

While there is evidence of trafficking of Khmer children to neighboring countries for employment as beggars and low skilled labor, we suggest that trafficking should be measured within individual countries in a way that accurately reflects the total number of trafficked persons. If Khmer persons trafficked to Thailand, for example, are to be counted in the number representing Cambodia, then how is the count for Thailand to be composed? Are trafficked persons to be counted twice, once within their country of origin and once within the country to which they are trafficked? Since Vietnamese persons trafficked into



Cambodia are included in the Cambodian total presented above, we suggest that they should not be counted again as trafficked in the Vietnam totals. To do so would double the estimate of the number of persons trafficked across international borders since all such persons would then be subject to double counting.

For the same reasons, we suggest that any trafficking of persons shown to exist that uses a given country as a transit point between other countries, be counted in the totals only for the country of final destination. To do otherwise, such as counting persons coming from one country and traveling through five countries to reach a final destination country as having been trafficked within each of these countries, would overestimate the number of trafficked persons by 700% since the same person would then be counted seven different times. Separate statistics maintained within each country on the numbers in transit, numbers originating in a country, etc., are of course appropriate and necessary categories provided that they are not used as the basis for double or triple counting.

Given this reasoning, we conclude that our best estimate of the total number of trafficked persons in Cambodia for all purposes is 2,488, since we see no good evidence of significant numbers of persons brought into Cambodia, or trafficked within Cambodia, for non-sexual purposes. To the extent that such persons may be shown to exist in future empirical studies, our estimates should be increased by that amount. Similarly, our best estimate of the upper-bound limit for the total number of trafficked persons in Cambodia for all purposes is 2,743 using the same reasoning. Persons wishing to challenge these estimates must present a clear, complete, replicable, scientific method for the way they obtained the higher estimates.

### Summary Statistics

The following point-in-time summary statistics are relevant. Our data suggest that the best estimate of the total number of sex workers in Phnom Penh at any point-in-time is 5,250. The most likely place for errors to occur in the construction of this number is within the City Block Sampling projection. The City Block Sampling study allows construction of a confidence interval around the number of workers in Phnom Penh, a number that affects the size of certain other numbers in this report. The upper 95% confidence limit calculated from the City Block Sampling data is reported above to be 257 additional minor sex work locations, as opposed to the best estimate of 132. Using this confidence limit, Table 7 presents two sets of summary statistics. The *Best Estimate* of the statistic is calculated using 132 as the number of additional minor venues. The *95% Upper Bound Estimate* is calculated using 257 in place of 132.

<i>Concept Measured</i>	<i>Best Estimate</i>	<i>95% Upper Bound Estimate</i>
Total Number of Sex Workers in Phnom Penh	5,250	5,844
Proportion of Phnom Penh Sex Workers who are Indentured	31.2% <sup>1</sup>	–
Total Number of Sex Workers in 10 Largest Cities	9,874	10,908
UNDP Estimates of Sex Workers on Rural Areas of Routes 1 and 5	3,130	–
Estimates of Sex Workers on Remainder of National Highway System	6,260	–
Total Number of Sex Workers in Cities and along National Highways	19,264	20,298
Maximum Number of Sex Workers in “Rural Areas”	1,565	–
<b>Total Number of Sex Workers in Cambodia</b>	<b>20,829</b>	<b>21,863</b>
<b>Likely Number of Sexually Trafficked Persons in Cambodia</b>	<b>2,488<sup>1</sup></b>	<b>2,743<sup>1</sup></b>

<sup>1</sup> Assumes that all current sex workers who were ever indentured, are currently trafficked workers.

The best estimate of the total number of sex workers in all of Cambodia is **20,829** and, with 95% confidence, this number should be no higher than 21,863. This means that anyone providing an estimate higher than 21,863 total sex workers of all ages and ethnicities in Cambodia at any point in time, must present a theoretical rationale for their method and explain clearly how its application resulted in this higher estimate, and specifically why the calculations presented in this paper do not provide a 95% upper bound limit.

One possible basis for increasing the estimate of the number of trafficked persons would be an estimate of the number of babies given to orphanages in exchange for a remittance. Government crackdowns have reduced the prevalence of this practice to small numbers, but it still may occur. The extent of its scope is an important area for future research. Beyond this orphanage remittance practice, some Khmer children are trafficked into Thailand for work as beggars and other menial labor jobs. This number must be measured in Thailand, and any number found should be counted in the total for Thailand, the end point for the trafficking, and not Cambodia, to avoid double counting.

We are unable to provide information on credible allegations of other forms of trafficking in women and children. If higher numbers are alleged, the form of trafficking must be specified, the allegations investigated, and the numbers verified by a stated replicable method. Similarly we have no data on trafficking in men for forced labor jobs. While such trafficking is equally reprehensible, in raw numbers it is likely much smaller than the numbers presented here on trafficking in women and children.

### **Difficulty of Measurement**

It may be worthwhile to consider the six factors that Perrin, et al. (2001) list as barriers to accuracy of measurement of sex workers. These are the

- Illicit nature of the sex trade
- Transience and trafficking of sex slaves
- Demographic data on the population alone is not well known
- Security risks of monitoring or recording data about number of sex slaves through direct observation
- Information becomes rapidly obsolete due to the constant flow of victims in the sex trade and evolution of the problem
- Blurring of lines and differences in definitions between which types of women and children are considered to be sex slaves (Perrin, et al., 2001, pp. 11 - 12).

While these factors affect the way in which measurement in commercial sex and trafficking is conducted, they can be taken into account.

(1) The *Illicit nature of the sex trade* does not make it impossible to measure. It simply creates a situation where questionnaires and other common accompaniments to social scientific measurement are likely to produce invalid responses (Steinfatt, 2002, Appendix on Data Collection Methodology, pp. 363-364). Attempts at using questionnaires and similar methods of recording data will assure that the interviewer is not welcome in the establishment at future times as well as assuring that little valid information will be collected on the current attempt. If management believes that the interviewer is working with the police or other forces against the best interests of the business, then the security of the interviewer may be compromised.

(2) The *Transience and trafficking of sex slaves* involves two different issues with respect to measurement. *Transience* creates a potential problem of double counting, and the possibility that workers have been moved recently and not replaced. These errors should be randomly distributed and their extent can be determined through replication of the study, and through careful distinctions between *point-in-time*

*estimates, per-unit-of-time estimates, and lifetime ever-worked estimates*, as discussed by Steinfatt (2002, pp. 17 – 22, & 134 – 144). *Trafficking* creates the same problem dealt with in (1) above.

(3) *Demographic data on the population alone is not well known*. Reliable demographic data on the population is in fact both well known and readily available from government ministries and from the Population Institute of the Royal University of Phnom Penh, as well as the United Nations (1999).

(4) *The Security risks of monitoring or recording data about number of sex slaves through direct observation* is dealt with in part under (1) above. Sex venues are not inherently dangerous places for an interviewer, especially when the interviewer is from the same culture as the interviewee, and/or when the interviewer is culturally similar to the expected customer base. Our interviewers for the Geographic Mapping Study were Khmer moto drivers who are common customers of the type of business they were surveying. Interviewers for the City Block Sampling were culturally similar to the persons in the business, either Khmer or Vietnamese.

(5) *Information becomes rapidly obsolete due to the constant flow of victims in the sex trade and evolution of the problem*. Constant flows do not equate to rapid or even to slow obsolescence. Commercial sex has a high EAR (Employment Activity Rate) as discussed in Steinfatt (2002, p. 134 - 144). But the number of workers remains relatively constant over time, and in Cambodia, many of the same workers can be found in the same locations over periods of six to eighteen months, despite the "closed" appearance that may be presented by the existence of large padlocks on the exterior iron gates of the establishment. Trafficking has occurred for thousands of years and the process does not evolve to new forms at a rapid rate. Some new locations do open and older ones do close, but that is the natural flow of any form of business responding to market demands. Occasional police raids have little effect on this flow, nor on established trafficking routes.

(6) *Blurring of lines and differences in definitions between which types of women and children are considered to be sex slaves*. This issue is clearly a problem, one of definition. If researchers deny the possibility of a woman making a free choice to become a sex worker, then such researchers will define all sex workers as sex slaves. Since most women working in any sex industry do so by free choice, researchers assuming that women cannot and do not work by free choice use different terms such as *sex slaves* to refer to such women. Since some workers are in fact trafficked while most are not, research reports by persons who, for ideological reasons, to fail to make and record fundamentally important distinctions such as who is in fact trafficked and who is not, can often provide information only on numbers of sex workers, who will then be called *sex slaves* in the report and will be referred to in it as having been trafficked, and not on actual numbers of victims of trafficking.

There is a correlation between real life experience in studying trafficking over time, competence in quantitative social science research methods, and the definitions employed. Competent researchers with experience in research in a given field usually maintain important distinctions whatever their personal ideologies may be. Persons claiming to be experts, but who are without substantial field experience in their research area, usually do not maintain such distinctions and often allow their ideologies to obscure their methodology. The numbers produced by ideologically driven research are usually (a) *not verifiable*, (b) *have no original data from which they were composed*, and (c) *usually have no computations or interim data summaries available from smaller scale data sets from which they were composed*. These elements are **hallmarks of fabricated numbers**. Thus, such studies usually have flaws sufficiently obvious that reasonable individuals, one would hope, would not be tempted to believe them, let alone base policy decisions upon them. Much of the testimony in the U.S. Congress concerning trafficking in persons has come from individuals with no social science research competence, no experience beyond speaking to someone who is believed to have been trafficked, and whose ideology predetermines their testimony, regardless of what scientifically gathered data may show.

The issue of children is more difficult. Children below a certain age clearly cannot make an informed choice and are rightly regarded as trafficked if engaged in sexual labor. The question is the age at which persons should be regarded as having the right to make such a choice. The United Nations has declared 18 to be that age. The United States agrees with that position. There is a certainty to declaring such an age that is reassuring. Yet this declaration has the effect of criminalizing the behavior of poor persons who are 16 and 17, and often members of their families. These are often persons who can and do legally work by choice in such jobs in many poor countries. This policy considerably reduces the income of the poor, but not of the rich in these same countries. The morality of a 17-year-old working in the sex industry is not the only moral question involved. An equally important moral question is the degree of participation of the poor in fundamental definitional processes imposed upon them by international organizations, definitional processes that have a significant impact on the livelihood of the poor. The relationship of the age of consent, to the imposition of policy on the poor by the rich – policy based on definitions imposed upon the poor by the rich without consultation or consent – is in need of further consideration and discussion.

## Final Thoughts

The statistics in this report are grounded in direct empirical observations, not in guesses by parties with political, moral, and economic positions to defend. Absent major changes in Vietnam and Cambodia, these numbers should gradually increase over time as a function of increases in the population of Phnom Penh, increasing urbanization, increases in sex-based tourism, and increases in the traffic along major transportation arteries throughout the country. Our observation-based assumption that small city tourist areas contain about twice the number of sex workers as other urban areas of the same size, may prove to be a useful or poor approximation both for calculating the number of workers and the number of those who are indentured. It is based on data obtained from urban areas of Thailand during the years 1988 to 1999. It does *not* suggest that tourism is the principal cause of commercial sex or trafficking. Rather, the effect of tourism on commercial sexual activity is small compared to the effect of local activity, but more obvious in smaller cities and towns highly dependent on tourism for economic sustenance.

When groups and individuals who are concerned with a particular problem construct messages about that problem, they often want to make the problem seem large so others will pay attention to it. Yet lower estimates of the size of a real problem do not reduce the importance of the problem. Stretching the truth by inflating the numbers simply lowers the credibility of the entire communication campaign. Even a single individual forced to engage in activities against his or her will, should be of concern to us all. Inflated estimates of the number of trafficked persons serve largely as propaganda tools to inflame passions of concerned persons around the world. Once inflamed, these passions can be used to justify impositions of policy by large nations and by international coalitions, and to raise donations. When policy is imposed from without and based on false assumptions of the size of the problem, a just solution is unlikely, and harm to the nation affected is more likely to occur from policies imposed in this fashion.

## References

- Alreck, P. L., and Settle, R. B. (1995). *The survey research handbook*. New York: Irwin/McGraw-Hill.
- Blalock, Hubert. (1972). *Social Statistics, 2<sup>nd</sup> ed.* New York: McGraw-Hill.
- Department of State (2001, July). *Trafficking in Persons Report, July 2001*. As required by the Victims of Trafficking and Violence Protection Act 2000. Washington D. C.: U.S. State Department.

Available at <https://www.state.gov/documents/organization/4107.pdf>

Gannon, John C. (2001, 21 May). *The Role of Intelligence Services in a Globalized World*. Prepared remarks for presentation given at the Stiftung Conference, Berlin, Germany.

NGO Statement. (2001). *NGO Statement to the 2001 Consultative Group Meeting On Cambodia*. Available at: <http://www.bigpond.com.kh/users/ngoforum/cg2001/child.htm>

Perrin, B., Majumdar, S., Gafuik, N., and Andrews, S. (2001). *The Future of Southeast Asia: Challenges of Child Sex Slavery and Trafficking in Cambodia*. Phnom Penh: The Future Group, Motorola Printers.

Rogers, E. (1995). *Diffusion of Innovations, 4th ed.* New York, Free Press.

Rogers, E., and Steinfatt, T. M. (1999). *Intercultural Communication*. Prospect Heights, IL: Waveland.

Schunter, B. (2001). Filial piety and Vietnamese sex workers in Svay Pak, Cambodia. *Research for Sex Work*, 4. Available at: <http://www.med.vu.nl/hcc>

Sittitrai, W., Wongsukol, N., Phanuphak, P. & Brown, T. (1993, June). Female commercial sex work in Thailand: Prevalence and risk determinants. *Proceedings of the 9th International Conference on AIDS*, Berlin, Germany.

Steinfatt, T. M. (1979). Evaluating propaganda and its effectiveness: a critique of Ellul's theories. *Et Cetera: The Journal of the International Society for General Semantics*, 36:2, Summer, 157-180.

Steinfatt, T. M. (2002). *Working at the Bar: Sex Work and Health Communication in Thailand*. Westport, CT, Greenwood Press.

Steinfatt, T. M., and Mielke, J. (1999). Communicating Danger: The Politics of AIDS in the Mekong Region. In William N. Elwood, (Ed.), *Power in the Blood: A Handbook on AIDS, Politics, and Communication*. Mahwah, NJ: Lawrence Erlbaum Associates, Chapter 28, pp. 385-402.

UNDP (2000). *Cambodia HIV Vulnerability Mapping: Highways One and Five*. United Nations Development Project. National Centre for HIV/AIDS, Dermatology and STD, Cambodia. ISBN: 974-68016-7-8. Available at <http://www.hiv-development.org/text/publications/Cambodia%20Mapping%20Land%20Transport.pdf>

United Nations. (1999). *World population prospects: The 1998 revision, Volume I: Comprehensive tables: Annex Tables to Background Paper* (UN Report No. E.99.XIII.9). New York: Population Division, Department of Economic and Social Affairs, United Nations Secretariat, p. 51.

World Gazetteer. (2002). *The World Gazetteer: current population figures for cities, towns and places of all countries*. Available at: [http://www.world-gazetteer.com/t/t\\_kh.htm](http://www.world-gazetteer.com/t/t_kh.htm)