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Estimating the Extent of Out-Migration Human Trafficking in Ukraine

Ron Hampton  
*University of Nebraska–Lincoln*, rhampton1@unl.edu

Dwayne Ball  
*University of Nebraska–Lincoln*, dball1@unl.edu

Julie Pennington  
*University of Wisconsin-Eau Claire*, penninjr@uwec.edu

Anh Nguyen  
*International Organization for Migration*

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Ron Hampton, University of Nebraska–Lincoln
Dwayne Ball, University of Nebraska–Lincoln
Julie Pennington, University of Wisconsin-Eau Claire
Anh Nguyen, International Organization for Migration

The problem of estimating the true extent of human trafficking has yet to be well-solved. The study we will report used three estimation methods to estimate the number of persons trafficked out of the Ukraine. One was a small (N~1300) survey of randomly-selected families, another was a large (N~13,000) survey of households, and a third was a survey of key neighborhood informants. The three methods, while varying in questionnaire wording, sampling frame, and other methodological considerations, converged roughly on an estimate of the number of persons trafficked out of the Ukraine. The estimated number was much higher than statistics from social service agencies would indicate, suggesting that government anti-trafficking efforts should be accelerated. Further, against stereotype and expectations, 2/3 of those trafficked were men, suggesting that stereotypes of the typical trafficked person as a young woman sold into the sex trade may be seriously incomplete. The study offers methodologies that may be adaptable to other countries and contexts, and further suggests that a great deal of future work, both methodological and substantive, needs to be done in the area of estimation of the extent of human trafficking.
Estimating the Extent of Out-Migration Human Trafficking Victims in Ukraine

Ron Hampton and Dwayne Ball
University of Nebraska – Lincoln

Julie Pennington
University of Wisconsin – Eau Claire

Ahn Nguyen
International Organization for Migration
Out–Migration Human Trafficking

Our working definition of a trafficking victim:

- A citizen who has gone abroad to work and has been forced to work without the opportunity to leave of his or her own free will.

- This encompasses sex slavery, forced agricultural, industrial, domestic, or construction labor, as well as wage slavery.
Prior to the surveys we will report, the only absolute statistic was the number of persons who reported themselves to governmental or NGO authorities as having been trafficked (and seeking help).

From IOM statistics:

- 2002: 179
- 2003: 238
- 2004: 347
- 2005: 473
Difficulties of Estimating the Number of Victims

- Victims of trafficking constitute a “hidden population.”
- Much has been written about this problem, and a number of solutions (none perfect) have been devised.
- Our solutions assume that while the victim may be unknown to officials, he or she may have told people who are close, either by family relation or by proximity.
Methods

1. Small survey of families (N~1000) in 5 countries (our questions added).
2. Large national health survey of >13,000 households (our questions added) in Ukraine.
3. Survey of key informants in Ukraine.
   - Hoping for rough convergence of estimates.
1. Family Survey of 5 Countries

- 5 countries (Ukraine, Belarus, Romania, Moldova, and Bulgaria) in 2006.
- Approx. 1000 in each country.
- Sampling frame: “random route” cluster sampling (GfK).
- Interviewed an informant in the household about his or her “close family:” parents, children, spouse, brothers, sisters.
1. Family Survey of 5 Countries

- Asked for the number of “close family” members.
- Asked for the number of close family members trafficked abroad.
- Three types of trafficking: lured by promises of domestic or nursing jobs, locked into commercial/agricultural jobs, and locked into sex business jobs.
- No time frame specified.
1. Family Survey of 5 Countries

Estimate:

- 97,000 Ukrainians trafficked abroad in the indeterminate past, 
- ± 60,000. (Wide due to low n.)
- May be a low estimate due to reticence of family members to talk about the trafficking of other family members.
2. Key Informant Survey

We sought people who were not part of a victim’s family, but who were central figures in a group, community, or “neighborhood” of which the victim would be a well-known member.
2. Key Informant Survey

Considered and interviewed
- Russian & Ukrainian Orthodox priests & Protestant ministers,
- Small-village headmen,
- General-practitioner MDs,
- Orphanage administrators,
- Local Police captains,
- “Babushkas,” and
- Head teachers of long tenure.
2. Key Informant Survey

Criteria for being a good type of informant:

- has well-defined “neighborhood” in which the neighborhood population is representative of the larger Ukrainian population,
- would know if someone had been trafficked, and
- the type of informant exists everywhere in Ukraine and is usually unbiased.
2. Key Informant Survey

- We chose 241 “Babushkas” and 221 head teachers,
- Using an Oblast/district stratified cluster sample devised by a sociology professor at Kyiv-Mohyla Academy.
- Districts of all sizes sampled proportionately.
- Interviewing done by approximately 50 sociology students on fall break, 2007.
2. Key Informant Survey

Questions:

- “How many in your “neighborhood population?” (for Babushkas, the neighborhood or apartment building; for Head Teachers, their students and their families).
- How many of those do you know were trafficked in the past 5 years?
2. Key Informant Survey

Estimate:

- Combining Babushkas and Head Teachers:
  - 109,000 over the past 5 years,
  - $\pm 37,000$
  - Or approximately 22,000 per year
  - $\pm 7,400$
2. Key Informant Survey

Additional question of the key informants:

- “How many persons do you strongly suspect, but do not know, were trafficked abroad?”
- Almost the same result:
- An additional 110,000 persons.
- Indication that the number from the Key Informant Survey may be much larger:
- Possibly 219,000 over 5 years, or about 44,000 per year.
3. Large Household Survey

- Sampling frame: small district clusters in Ukraine (National Health Survey), Fall 2007.
- Unit of analysis: Household, all persons living in it the night before. N=13,379
3. Large Household Survey

- Respondents asked for the number of household members.
- And the number of those who had been trafficked.
- Also, sex of the trafficked persons.
- Time frame: past 3 years.
3. Large Household Survey

- Estimate:
- 111,000 persons trafficked outside Ukraine over 3 years, ± 26,000.
- Or about 37,000 per year, ± 9,000
- 2/3 men
Summary

- We are very confident that at least 22,000 Ukrainians per year have been trafficked abroad on average in past 5 years.
- Fairly sure this estimate is low; the correct value is probably double, based on Large Household Survey, which is probably our most accurate estimate.
- Surprise: 2/3 men.
What would we do differently?

- More consistent definition of trafficking.
- More control of trafficking question wording, esp. sensitive to cultural variations.
- More careful definition of “close family”
- More control of sampling frame and procedure.
- Stick to large samples.
- Work harder on identifying good key informant types and good individual key informants within type.
Questions?
Why these methods? Are they exhaustive?

- The problems of measuring hidden populations are addressed in our report, just after the introduction.
- The alternatives (expert opinion, capture-recapture, direct surveys of current or returned victims) all appear to have far more serious biases.
- There is one commonality among our 3 methods: they all ask for information from people who probably should know if someone else has been a victim.
Why these methods? Are they exhaustive?

- We make no claims that the methods are exhaustive.
- For example, with enough money, one could send investigators to every Ukrainian abroad and determine his or her victim status (yes or no).
- We claim only that these approaches represent the best available practical methods.
Why these methods? Are they exhaustive?

The methods, particularly studies 1 and 3, are similar to the famous and somewhat controversial studies published in the British medical journal, *Lancet*, regarding deaths due to the war in Iraq.

We reviewed all the criticisms of those studies and could find no better method, assuming that the authors followed their own methodology.
“We believe bias from sample design is minimal” in study 1

- Is this justified?
- The sample design in this study was from a random route/random address cluster sampling technique
- Designed and implemented by GfK.
- If there is bias, it would have to arise due to unprofessional behavior on the part of GfK: interviewers not following the plan.
- We have no reason to suspect unprofessional behavior on the part of a reputable survey company.
Study 1: Is it possible overlapping households were interviewed?

- Given that we asked about “close families,” that usually are not all in one household,
- Is it possible that the same close family was interviewed twice, thus biasing the estimate?
- We wrote a 3–page analysis of this question regarding Moldova, using basic probability theory (available upon request).
- Conclusion: the probability of any overlapping households in the data is no more than two out of ten thousand.
There is no way to determine this, empirically.

Of all the different types of key informant we considered, they were the most confident in their knowledge, and had the most representative “neighborhoods.”

The key informant technique was used as a check on the other techniques.

All techniques have bias; we sought techniques with different biases to see if they would produce somewhat close estimates.
Method 2: Rotation among neighborhood residents as a source of bias.

- We asked the Babushkas and the Head Teachers to give us the number of persons in their neighborhoods on the day of the interview,
- And then the number of those people who they knew had been trafficked in the past 5 years.
- Thus, there should be no problem with the number of persons in a household changing.
Study 2: expanding estimates to population

- Each Babushka had a neighborhood size, ranging from 11 persons to 6250 people (only 17 of the 242 Babushkas had more than 1000).
- We converted her “number of persons known to be trafficked” into a ratio of “persons trafficked per thousand in neighborhood.”
- The mean number per thousand was scaled up to the size of the Ukrainian population.
- Similar procedure for Head Teachers.
Are Head Teachers’ neighborhoods representative of Ukraine?

- Probably less so than Babushkas.
- Families with school children may be under more pressure to seek work abroad than people without children.
- We might expect an upward bias for that reason.
- Just as we might expect a downward bias due to less complete knowledge on the part of Babushkas.
- We sought methods with as little bias as possible, and different biases than other methods.
Study 2: Babushka’s various estimates comparable?

Babushkas estimated:

- number of trafficked persons,
- number of suspected trafficked persons,
- number going abroad to work, etc.

Are these comparable?

- As they come from the same source, they should be comparable; just as any two questionnaire items measured on a sample of, for example, economists, should be comparable.
Study 2: How were ratios computed?

- For example, how was the ratio for the probability of being trafficked if going abroad to work computed?
- Rate of being trafficked (Babushkas + Head Teachers): 2.33 per thousand
- Rate of going abroad to work: 39.1 per thousand.
- Probability of being trafficked if going abroad to work: \( \frac{2.33}{39.1} \) or about 6%
Study 2: Official Statistics

- 233,000 going abroad to work: official statistic.
- Estimate from key informants: 1.8 million.
- Official statistics apparently do not include short-term work abroad.
- We were unaware of this, and could not account for it.
- Thanks to the person who informed us of what the official statistics included.
Study 2: Probability of being trafficked if going abroad to work

- One estimate (page 20): 6%
- Suspicion (page 20): maybe 9 or 10%
- Basis for suspicion: **All** of our estimates are very likely to be under-estimates of the amount of trafficking, because of all of the problems associated with estimating hidden populations.
- Our best estimate is 6%.
- Why say 9 or 10%? We don’t need to, but we do not wish to ignore the likely bias.
Study 2: Assumption regarding accuracy of key informants

- Why should it be assumed that key informants have no reason to provide inaccurate data?
- This is one reason for the key informant technique as a check.
- The other two studies used family or household members, who might have a reason to hide shameful facts.
- The key informants are not family/household members, so this motivation is less.
Study 2: Assumption regarding accuracy of key informants

- Babushkas might have had a motive to make their neighborhoods more “dramatic” or to show more “knowledge” than is actually the case.
- Yet, Babushkas produced the lowest estimate of trafficking.
- So, that form of bias may be less than for the other methods.
- Again, the key informant technique was used as a “check” on the other methods and gave us estimates that were not dramatically different.
How were the confidence intervals computed?

Normal distribution theory estimates in all cases.

- In each study, the parameter being estimated was the average number of trafficked persons per observational unit:
  - close family in study 1,
  - neighborhood normalized to 1000 persons in study 2 (babushkas and head teachers).
  - Household in study 3.
How were the confidence intervals computed?

- The individual observations were usually 0 trafficked persons per family, informant, or household,
- occasionally 1 trafficked person, or
- very occasionally 2, 3, or more.
How were the confidence intervals computed?

Typically, a small number for the mean:

- Study 1: 0.0155 persons per close family.
- Study 2: 1.91 trafficked per thousand in the neighborhoods of babushkas and 2.78 trafficked per thousand family members of students for head teachers.
- Study 3: 0.00583 trafficked persons per household.
- Call these means M.
How were the confidence intervals computed?

- The standard deviation of the sample could then be computed by taking a deviation of each number from the relevant mean, squaring the difference, and averaging the squared differences.
- Call this $s_x$, the standard deviation of the sample.
- The 95% confidence interval is
  \[ M \pm 1.96 \, s_x \]
Why didn’t the estimates converge more closely?

- Each source of data has its own biases.
- We are inclined to trust study 3, the large household survey more than the others,
- due to the large sample size,
- and the fact that, because it was the third study, we could apply some learning from the first two studies.
Why didn’t the estimates converge more closely?

- For example, Study 1, the small family survey, had some problems with the definition of “family:” despite instructions, some respondents apparently counted brothers-in-law and sisters-in-law as brothers and sisters.
- Furthermore, all possible definitions of human trafficking may not have been included in the 3 operational definitions we used (for example, victims lured by professional job offers).
- Finally, an indeterminate time frame may have produced a low estimate due to memory loss.
Why didn’t the estimates converge more closely?

Time frame issue:

- It is interesting that all three time frames:
  - (indeterminate, 5 years, 3 years)
  - Produced similar total trafficking point estimates:
    - 97,000, 109,000, and 111,000.
Why didn’t the estimates converge more closely?

Possible explanations:

- The rate of human trafficking has increased over the past decade.
- The willingness of relatives and friends to reveal their trafficked status to others has increased over the past decade.
- The ability of friends and relatives to recognize the signs of trafficking has increased over the past decade.