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CHILD LABOR AND TRAFFICKING IN THE LAKE VOLTA AREA

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Introduction

This study estimates likely child trafficking and exploitative child labor in three fishing districts around Lake Volta in Ghana. Both international and Ghanaian definitions were applied to determine these populations. Targeting children in fishing villages along the coast of Lake Volta, this study used a household-based probability sampling to reach N=1,286 children. Household parent/caregivers (N=489) were also sampled to understand community perceptions of trafficking and child labor in these areas.

Among children interviewed, we find that about 38% were likely victims of human trafficking and an additional 45% were engaged in likely exploitative child labor (i.e., excessive hours, harsh conditions). Additionally, we find that children identified as likely trafficked victims are more frequently exposed to dangerous working conditions, physical and psychological harm.

Among children, we find:

- Approximately 37.7% (CI=34.3,41.1) of children were identified as likely trafficked victims.
 - The majority of these children were boys (~60%).
 - These children were about 13 years old on average.
- An additional 45.1% (CI=41.6,48.7) were engaged in likely exploitative child labor conditions only, and 17.2% (CI=14.6,20.2) were doing other child work/help.
- About half of all children engage in fishing tasks out on the lake, such as bailing/scooping water, paddling the boat, diving for nets, etc.
- Some of these tasks are particularly dangerous, with 15% reporting going underwater to retrieve nets.
- About 20% of children said they were not attending school, citing the need to work as one of the most common reasons for skipping school.

Likely trafficked children:

- Many were working in dangerous conditions (28.6%) or working excessive hours, including: ~22.5 per week on average, 34.4% working six days a week, and 13.7% reporting working seven days a week.
- More than half worked while it was dark.
- 58% of likely trafficked children report extreme fatigue, 55% report severe stomach aches, and 51% report severe back and joint pain. About 40% expressed feeling sad, hopeless, or having little interest in things.
- Emotional violence, such as being belittled and insulted, was significantly higher among likely trafficked children (25.3%) than those in likely exploitative child labor (12.3%). A similar pattern emerges for physical violence and threats of violence, with 36.7% of likely trafficked children experiencing such conditions.
- Likely trafficked children experienced the highest levels of restrictions on their freedom, perceived exit or work refusal costs, and emotional and physical abuse at work.

Among parent/guardians, we find:

- Nearly 20% know of a child brought to their village to work, while about 34% know of a child not enrolled in school (most commonly to support their family economically).
- About a fifth have witnessed children engaged in dangerous fishing tasks, with about 10% noting they have seen boys being treated badly in fishing.
- However, most parent/caregivers believed children enjoyed working in fishing, most commonly because it allowed them to earn money for themselves or their family.
- Knowledge of labor laws is lacking, with only 9% reporting their employers are knowledgeable about most labor laws.

Using rigorous probability-based methods, this study finds child labor in the fishing industry to be pervasive in the villages along Lake Volta, dangerous and abusive working conditions to be common, and

the number of potential child trafficking victims to be alarming. In addition to probability household sampling, we also used population-based calibrations to weight our results. These results point to the need for increased efforts to enforce child protection laws, eliminate abusive working conditions for children, and improve access to child welfare and education services. More importantly, periodic assessment through repeated measures should be built into all anti-child trafficking or anti-human trafficking efforts to evaluate program outcomes and monitor progress.

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BACKGROUND, PURPOSE, & METHODOLOGY

Background

Like most developing countries, many children in Ghana are in the labor force to assist their families to make ends meet. Nationally more than a third of children aged 5-15 participate in the labor force, and nearly one in five children in Ghana does not live with either biological parent.¹ According to the Trafficking in Person (TIP) Report issued by the US Department of State (2022), Ghanaian children are found in forced labor in Lake Volta's fishing industry; traffickers limit access to food as means to control their victims.² Children work in hazardous conditions, including deep diving. The depletion of fish stocks in Lake Volta further increased the need for the cheap labor provided by children, particularly those trafficked from their home villages.³ Aside from the fishing industry, traffickers also exploit children in forced labor in domestic service, street hawking and begging, portering, artisanal mining, quarrying, herding, and cocoa farming.

DEFINITION OF THE TARGET POPULATION

This study is concerned with forced child labor or child labor trafficking. Forced child labor is defined as any forced or compulsory child labor, and debt bondage and serfdom of children, including situations in which the child appears to be in the custody of a non-family member and the child's work financially benefits someone outside the child's family, or the denial of food, rest, or schooling to a child who is working. Forced child labor is among the worst forms of child labor as defined

by international convention.⁴ Forced child labor is different from child labor in general, which is defined by international conventions that prohibit the employment of children below a minimum age (as established by national legislation) and working conditions that are hazardous or detrimental to the wellbeing of a child. For instance, Ghanaian law prescribes the minimum age thresholds that children are allowed to work (15) or to work in hazardous conditions (18) and defines exploitative child labour as the deprivation of the child's health, education, and development.⁵

PRIOR RESEARCH ON CHILD FORCED LABOR IN GHANA

Ghana's fishery sector, particular inland fishing around Lake Volta, is critical to the livelihood of those that live in the bordering districts. Lake Volta fishing makes up about 90% of total inland fishery.⁶ Older estimates suggest nearly 50,000 children are involved in fishing in Ghana, with the majority working around the lake. Although there is some disagreement by local stakeholders, many acknowledge the presence of exploitative child labor and child trafficking on the lake for the purposes of fishing.

Recent headlines have brought to international attention the individual experiences of children trafficked into forced labor on Lake Volta.⁷ Qualitative interviews with trafficked children on the lake indicate children are deprived of adequate food, sleep, education, and access to medical care.⁸ Such interviews also detail the danger involved in being out on the lake and the daily abuses children face

1 Better Care Network. (2015). Ghana DHS 2014: Children's Care and Living Arrangements, New York: Better Care Network.

2 <https://www.state.gov/reports/2022-trafficking-in-persons-report/>.

3 <https://www.unodc.org/unodc/en/frontpage/child-trafficking-in-ghana.html>

4 C182 – Worst Forms of Child Labour Convention, 1999 (No. 182), last accessed here: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C182.

5 <https://www.dol.gov/agencies/ilab/resources/reports/child-labor/ghana>; Children's Act of 1998, Act 560, Section 87 at http://www.ovcghana.org/docs/Childrens_Act_1998_Act_560.pdf.

6 International Labour Organisation. (2013). "Analytical Study on Child Labour in Volta Lake Fishing.

7 Patta, Debora. (2021). "Children forced into slavery risk lived deep-dive fishing in Ghana. CBS Evening News (September 28, 2021). Kristine, Lisa. (2021). "On Ghana's Lake Volta, child slavery in plain sight." CNN (July 3, 2021)

8 Hamenoo, E. S., & C. A. Sottie. (2015) "Stories from Lake Volta: The lived experiences of trafficked children in Ghana" Child Abuse and Neglect 40: 103-112.

from their employers. A mixed-methods assessment found that younger boys are most often observed fishing out on the lake, but both boys and girls were engaging in physically difficult work and long hours.⁹ However, few prevalence estimates of likely trafficked children exist. This study seeks to address this gap.

Study Purpose and Scope

The primary purpose of this study is to establish reliable baseline prevalence estimates of child labor. Such prevalence estimates will not only be broadly useful to the community to better understand the local labor conditions of children.

Study Objectives

1. Establish prevalence estimates of overall child labor as well as the prevalence of child labor based on age range, sex, and region.
2. Establish prevalence estimates of type of work (e.g. legal child work/help, exploitative child labor, trafficked/forced labor). Understand the types of exploitation that may occur within each type of work.
3. Describe children's work activities.

4. Describe information related to child labor migration/trafficking (e.g., age of occurrence, community of origin) when applicable.
5. Describe parental/caregiver awareness of forced labor in their community.

Methodology

This study went through three distinct phases: survey instrument development and sampling design, field data collection around Lake Volta, and data analysis based on statistical calibration. Our primary data collection method utilized quantitative questionnaires.

SURVEY INSTRUMENT DEVELOPMENT

Measurement items developed to identify labor practices and trafficking are based on principals established by scholars¹⁰ and Ghanaian law.¹¹ For instance, the ILO (2009) suggests “violence on victims” and “isolation, confinement, or surveillance” are two exemplar strong indicators of coercion at destination; we capture these with validated scales of “violations of physical integrity” and “restriction of physical/ communicative freedom” These items were first developed were first developed and validated in a labor trafficking study in San Diego¹², and found to possess excellent psychometric properties through item-response analysis¹³. These same scales and their variations have been successfully applied in multiple

9 IJM Operational Assessment Team, A. Adeyemi, H. Agbeko, K. Christy, P. Langford. (2015) “Child Trafficking into Forced Labor on Lake Volta, Ghana: A mixed-methods assessment.” International Justice Mission.

10 Okech, D., Aletraris, L., & Schroeder, E. (2020). Human trafficking statistical definitions: Prevalence Reduction Innovation Forum. University of Georgia African Programming and Research Initiative to End Slavery. DOI:10.13140/RG.2.2.31986.12484
International Labor Office. (2009). Operational Indicators of Trafficking in Human Beings. [wcms_105023.pdf](#) (ilo.org)

11 Government of the Republic of Ghana. The Children's Act, Act 560. Enacted: September 24, 1998.

<http://www.ilo.org/dyn/natlex/docs/WEBTEXT/56216/65194/E98GHA01.htm>

Government of the Republic of Ghana. Labour Act of 2003, Act 651. Enacted: March 31, 2004.

<https://www.ilo.org/legacy/english/inwork/cb-policy-guide/ghanalabouract2003section109.pdf>

12 Zhang, Sheldon X., Michael W. Spiller, Brian Carl Finch, and Yang Qin. 2014. “Estimating Labor Trafficking among Unauthorized Migrant Workers in San Diego.” *ANNALS of American Academy of Political and Social Science* 653(1): 65-86.

13 Zhang, Sheldon X., and Li Cai. 2015. “Counting Labor Trafficking Activities: An Empirical Attempt at Standardized Measurement.” *Forum on Crime and Society*, 8: 37-61.

human trafficking prevalence studies in US¹⁴ and abroad¹⁵. Additionally, “working excessive working days or hours” is a strong ILO indicator of exploitation; though there is no specific guidance as to how to define this, we erred on conservative cutoffs for children as to not overestimate exploitation (i.e. ≥ 40 hours of work). Although some created items are specific to Ghanaian fishing (i.e. considering diving underwater to retrieve nets a dangerous task), it is important to note that no single indicator was responsible for classifying a child as “likely trafficked” or experiencing exploitative labor. These items were then used to construct experiencing one or more of the following domains:

Table 1. Trafficking Domains and Associated Survey Topics

TRAFFICKING DOMAINS	RELEVANT SURVEY TOPICS
A. Recruitment by abuse of vulnerability	Child migration Origin communities Adults involved in travel Reason for travel
B. Coercion at destination	Consequences of work refusal Exit costs Income and debt bondage Restrictions on personal freedom
C. Abuse of vulnerability at destination	Living Situation
D. Exploitation	Working hours and types of tasks Hazardous work conditions School attendance (non-attendance for work reasons) Working in the dark Breaks/meals/hunger Physical and mental health consequences of work Actual or threatened harm by employer

We use information on these four domains to identify children who are likely trafficked victims, those who are otherwise engaged in likely exploitative child labor, and those engaged in other child work/help. This mapping is detailed in Appendix A.

Additionally, we also developed an adult survey instrument which queried their knowledge of children’s involvement in fishing, labor conditions,

and labor trafficking. Both the child and adult survey instrument went through several iterations with the help of our field staff and were pilot tested in fishing communities outside the sample districts before formal field rollout. See Appendix C for the child and adult survey questionnaires.

14 Zhang, Sheldon, Kelle Barrick, Brian Evans, Ryan Weber, Joe McMichael, and Derek Ramirez. 2018. Labor Trafficking in North Carolina: A Statewide Survey Using Multistage Sampling. A Summary Overview to Award #: 2013-IJ-CX-0047, funded by the National Institute of Justice, US Department of Justice. Available at: <https://www.ncjrs.gov/pdffiles1/nij/grants/252521.pdf>

15 Vincent, K., M. Dank, O. Jackson, S.X. Zhang & W. Liu (2021) Estimating Young Women Working in Kathmandu’s Adult Entertainment Sector: A Hybrid Application of Respondent Driven Sampling and Venue Site Sampling, Journal of Human Trafficking, DOI: 10.1080/23322705.2021.2007461

Vincent, K., S. X. Zhang, & M. Dank. (2019). Searching for Sex Trafficking Victims: Using a Novel Link-Tracing Method among Commercial Sex Workers in Muzaffarpur, India. Crime & Delinquency. First Published online. <https://doi.org/10.1177/0011128719890265>.

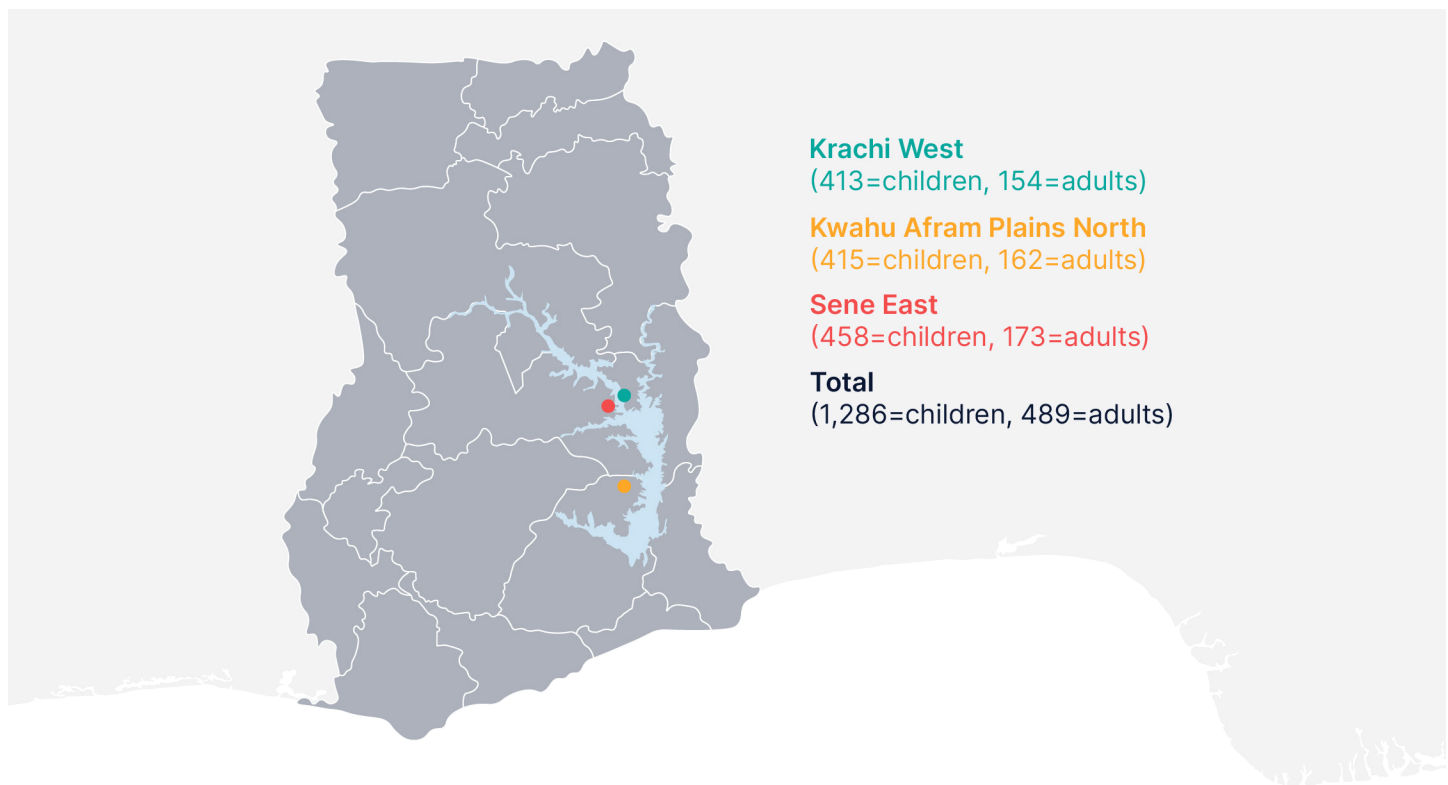
PROBABILITY SAMPLING

After a formative assessment, household-based sampling was determined to be the best method given the nature of the communities and respondent profiles. The formative assessment involved field observations and one-on-one or focus group conversations with community contacts, including village elders, caregivers, children, boat masters, as well as representatives from non-government organizations (NGOs) working in child trafficking. Community contacts were queried about a number of topics including but not limited to patterns of child work, school attendance, origin of children working, and the logistics around reaching both youth and their consenting adult in given locations and timeframes. In addition to household-based sampling, link tracing and time location-based sampling were also considered. Although each option had merits, there were concerns that children were too often fearful or otherwise reluctant to recommend peers for link tracing to be successful, and time-location sampling carried numerous logistical and budgetary hurdles as enumerators would have to track down consenting parent-caregivers for each child interviewed near the lake before proceeding. There were also concerns that children may not be as forthcoming if enumerators attempted to contact them near places of work. Other time-location options such as market day or church services were discarded as the children most apt to be working on the lake may not be consistently engaged in these activities. Although household-based sampling was determined to be the best option in terms of methodological rigor and under the local circumstances, it does have limitations. One such limitation is that children

who are most likely to be exploited or trafficked may be away from home at the time of interview; to ameliorate this, we used the formative assessment to determine the timeframe that parent/caregivers were most likely to be home, and enumerators returned to a home multiple times if a child was not available. Other sampling-based limitations and the efforts to address those are detailed in the concluding pages of the report.

A three-stage household sampling design was used for the selection of children and a subset of their parent/guardians to be interviewed. The design was applied separately and independently within each of the three study districts around Volta Lake (Krachi West, Kwahu Afram Plains, and Sene East). Based on power analysis and budget considerations, we projected a total sample size of 1,200 children and 400 parent/guardians. Actual sample sizes across the three districts are noted in Map 1.

The first stage was based on using a probability proportional to population size design to first select a subset of enumeration areas from a list of candidate enumeration areas bordering the lake. Hence, for each individual the selection probability at this stage was proportional to the size of the corresponding enumeration area in which they reside. This has the benefit of ensuring a heterogeneous sample while reducing costs that would be associated with an equal probability sampling approach. An equal probability approach necessitates sampling additional enumeration areas which can result in substantial time and monetary costs in hard-to-reach locales around the lake.



The second stage of sampling applied a random route walk approach within each selected enumeration area to select a subset of households for observation. Such systematic designs are commonly used in standard household survey studies, with selection at this stage modeled as if households were selected via simple random sampling. Local partners observed that a typical enumeration area was comprised of approximately 450 households and advised the study team to use this as the approximated count of households for each of the selected enumeration areas. For each individual, their second stage selection probability was therefore approximated with the ratio of the number of households in which a successful invitation was obtained in the corresponding enumeration area and 450. It is noted that there were occurrences of non-response at the household level, and that no information pertaining to such households was observed. Hence, non-response was modeled as if it occurred completely at random and therefore a corresponding non-response term was not incorporated in the selection probability

at this stage.

The third stage of sampling was based on randomly selecting one child from among all eligible children that reside within each selected household. Random selection avoids the bias that would arise from allowing the parent-caregiver to select the child. For instance, if parent-caregivers are more apt to select the child that works less, non-random selection would result in underestimating child labor. Hence, the corresponding selection probability at this stage for each individual was taken to be the ratio of one and the total number of children residing at the corresponding household.

DATA COLLECTION AND FIELD PROCEDURES

Before beginning data collection, Kantar paid courtesy calls to all District Assemblies to obtain cover letters to aid in community entry. Kantar's field team then met with local Chiefs, village elders, and opinion leaders to secure permission to enter their respective communities. While many were open to data collection, some expressed skepticism

or hostility due to previous rescues and arrests. The field team was able to overcome these concerns in all but one enumeration area.

Some areas were challenging to access, and in some cases field teams needed to travel to villages by boat. Further, fear of rescues/arrests meant that the field team had to overcome apprehension among some potential respondents.

Data were collected through face-to-face interviews using tablets and Nfield software. Team supervisors were constantly monitoring for adherence to established protocols, and overall data quality. The SDSU team was regularly reviewing data with an eye towards systematic patterns of missing or potential underreporting. Collectively, the community entry and data collection/review efforts led to comprehensive data on children and their parent/guardians in fishing areas.

ETHICAL CONSIDERATIONS

This study has been reviewed and approved by Ghana Atomic Energy Commission Ethics Review Committee in May of 2022. All data collectors involved in the surveys and interviews had a minimum of four days training, covering such topics as confidentiality and anonymity, establishing rapport, ethical protocols, minimizing risk, and

duty to report cases of abuse. All field staff were also trained on how to observe Covid-19 protocols during fieldwork to protect both their own and their respondent's safety.

Prior to the survey, informed signed consent was obtained from both participants and their parent/guardian for the child survey. In approximately 15.5% of the interviews, the parent was present, and in an additional 6% of interviews a family member would stop in briefly during the interview. Participants could stop the interview at any time or choose not to answer specific questions. For the child survey, children were eligible if they were between 8 and 17 years old.

Kantar enumerators were trained to establish rapport with village chiefs and elders, and scan for potential risks posed for respondents as well as the research team. Kantar has established protocols in protecting human subjects from harm during the interviews and enumerators know when to escalate a report to their supervisor in the case of child endangerment. In approximately 52% of the interviews, a supervisor was present to observe the child's responses. There was neither report from the field of any adverse incidents, nor report of situations that presented immediate danger to any of the respondents.





ANALYSIS & FINDINGS



for, and an additional 2.5% reported that they lived with a “mother/father/aunt/uncle” that was not biologically related. Of those children not living with either parent, about 9.3% reported that both parents were deceased, and 3.2% did not know where their parents lived. Approximately 23.6% of children lived with children that were unrelated to them; this was most common in Kwahu Afram Plains

(27.6%) and least common in Sene East (19.1%).

Overall, 22.4% reported they were not currently enrolled in school. School enrollment in the lake areas was the highest in Krachi West (86.6%), followed by Sene East (76.4%), and lowest in Kwahu Afram Plains (73.8%).

Analysis and Findings

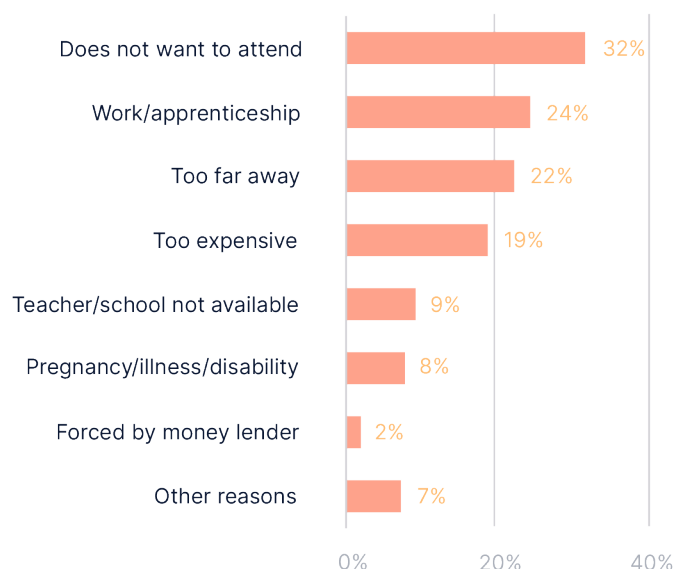
Calibration techniques were employed to adjust sample anomalies and account for variations from local age-sex census data for the child survey (Appendix B). The adult survey remains uncalibrated and should be interpreted as exploratory information, as the adult sample was only secondary to the child sample and not strictly probability based. The following sections present key findings from our analysis.

DEMOGRAPHIC PROFILES

Approximately 54% of our sample was male, and 46% was female. Children aged 8 to 11 years of age comprised 37% of the sample, compared to 32% for children 12-14, and 30% for children aged 15 to 17 years old. Only 1.1% of children indicated they were married.

About 85% of children reported living with either or both their biological parents, whereas 11% reported living with another biological relative such as an aunt/uncle, sibling, or other relative. Only 1.5% reported they lived with a non-relative they worked

Figure 1. Child Reported Reasons for Non-attendance



Note: Totals to >100% as one child can select multiple reasons

Common reasons for not attending (Figure 1) included not wanting to go to school (32%), needing to work or participate in an apprenticeship (24%), having the closest school too far away or too unsafe to travel to (22%), or school being too expensive (19%). Still other children reported there was either no school or insufficient teachers in their area (9%) and other children reported health or disability conditions that prevented them from attending (8%).

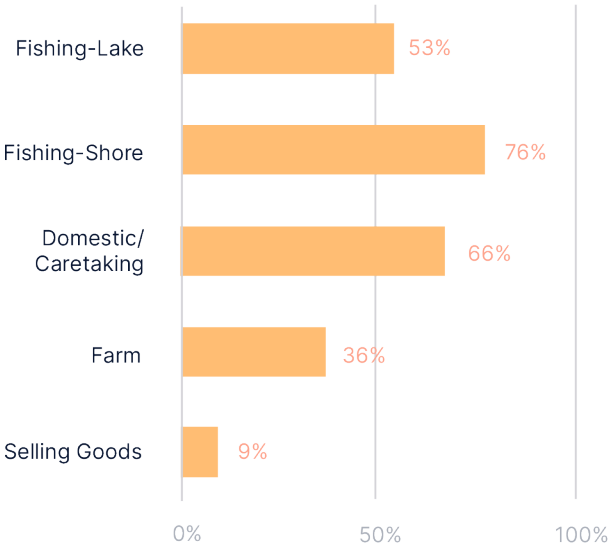
Of children 8 to 11, 13.6% reported they had attained no education, 29% indicated kindergarten or preschool, and the remainder indicated primary school. For children 12 to 14, the highest grade attained was as follows: 5.2% no schooling, 6.3% kindergarten or preschool, 85.8% primary school, and 2.7% junior high school. Finally, for children aged 15 to 17, 5.4% had attained no school, 2.7% only kindergarten or preschool, 72% primary school, 18.1% junior high school, and 1.9% senior high school.

EMPLOYMENT CONDITIONS

Practically all children participate in some form of labor. Children report engaging in many types of work tasks around the lake (Figure 2). Approximately 53% of children report engaging in fishing tasks out on the lake, such as bailing/scooping water, paddling the boat or running the motor, diving to retrieve the nets, etc. Seventy-six percent reported engaging in fishing tasks on shore such as cleaning or repairing nets, sorting, cleaning/scaling, or smoking

fish. Approximately 66% engaged in domestic or caretaking tasks whereas 36% did farm work. Finally, 9% indicated they sold goods.

Figure 2. Reported Work Tasks of Children



Note: Totals to >100% as one child can select multiple tasks

Approximately 15% of children reported doing work that required them to go under water, whereas 2.6% reported having to go underground, 6.3% climbed to dangerous heights, and 2.1% used chemicals or skin irritants. About 41% of children reported going to work before it was light out, and 21.9% reported returning from work after it was dark.

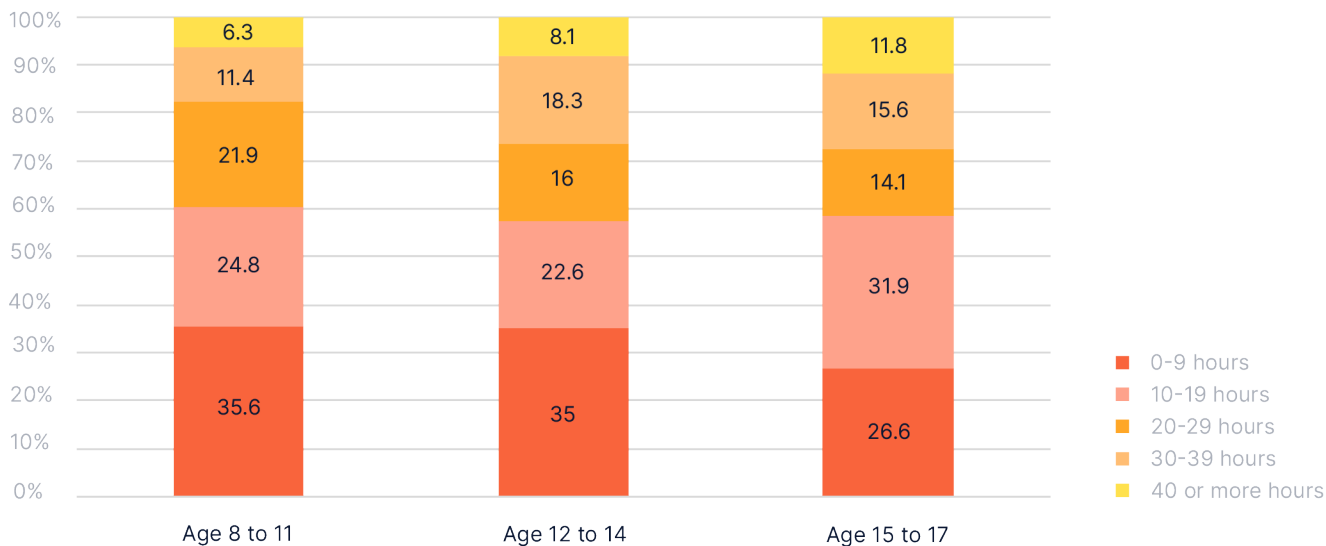


Children report working an average of 4.6 days a week, with 13.1% reporting working five days, 34.4% reporting six days, and 13.7% reporting working seven days a week. Approximately 8.5% report working more than forty hours a week, while an additional 14.9% report working between thirty and forty hours, and 17.6% report between twenty and thirty hours. This varies by age (Figure 3), with approximately 18% of children aged 8 to 11 working thirty or more hours and over 25% of both children 12 to 14 and 15 to 17 working thirty or more hours a week. At all ages, the

majority of children are working ten or more hours per week. Girls reported working an average of 17.8 hours per week whereas boys reported working an average of 19.7 hours per week. Children in Kwahu Afram Plains reported working the most hours per week, on average (21.0), followed by Sene East (19.4), and Krachi West (13.3).

About 20% of children report getting paid for their work. Among these children, they earn, on average GH 1,622 (CI=1,339, 1,906) per year.

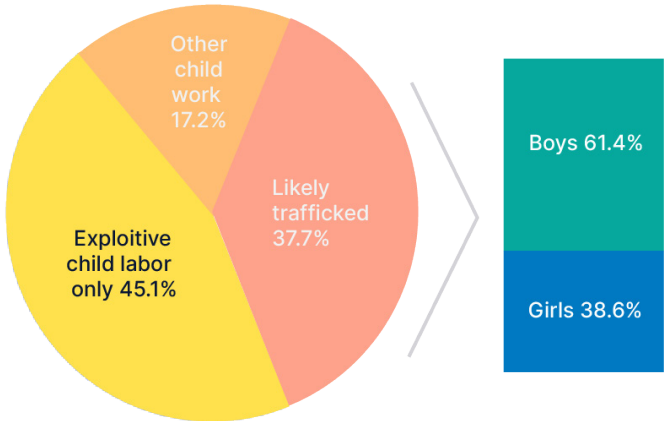
Figure 3. Average Hours of Work Per Week, by Age of Child



LABOR TRAFFICKING PROFILES

We identified children who were likely victims of labor trafficking using the methods outlined in Appendix 1; additional children were identified as experiencing exploitative child labor conditions but were not considered likely trafficked victims. Overall, approximately 37.7% (CI=34.3,41.1) were identified as likely trafficked victims. An additional 45.1% (CI=41.6,48.7) were engaged in exploitative child labor conditions, and 17.2% (CI=14.6,20.2) were engaged in other child work (Figure 4).

Figure 4. Labor Conditions among Children and Child Sex among Likely Trafficked Children



Among children identified as likely trafficked and experiencing exploitative child labor, approximately 60% were boys and 40% were girls. Among children experiencing other child work, about 30% were boys and 70% were girls.

In Kwahu Afram Plains lake areas, about 40.4% of children were likely trafficked (Table 2), compared to 33.2% in Sene East, and 37.5% in Krachi West.

Table 2. Labor Types, by District

	SENE EAST	KWAHU AFRAM PLAINS NORTH	KRACHI WEST
Other Child Work	17.6% (13.73,22.16)	18.3% (13.98,23.63)	14.5% (10.44,19.81)
Exploitative Child Labor	49.3% (43.40,55.13)	41.3% (35.70,47.09)	48.0% (41.85,54.14)
Likely Trafficked	33.2% (27.69,39.19)	40.4 (35.00,46.09)	37.5% (31.81,43.63)

By children's age, about 32%, 39%, and 44% of children aged 8 to 11, 12 to 14, and 15 to 17 were likely trafficked, respectively.

LABOR EXPLOITATION AND CHILD WELLBEING

Table 3 presents working conditions for the three categories of child labor. Children identified as working in exploitative child labor or trafficking conditions worked considerably more hours, labored under more dangerous conditions, and were more likely to labor in the dark than children engaged in other child work/help. For instance, 19% of children in exploitative child labor were engaged in dangerous labor such as diving under water, climbing to heights, handling chemicals, or going underground; however, 28.6% of likely trafficked children also worked under similarly dangerous conditions.

Table 3. Labor experiences, by labor type

	OTHER CHILD WORK	EXPLOITATIVE CHILD LABOR	LIKELY LABOR TRAFFICKED
Hours per week	10.4 (8.88,12.00)	18.9 (17.00,20.72)	22.54 (20.82,24.26)
Dangerous labor conditions	0.1% (0.02,1.82)	19.3% (15.42,23.83)	28.6% (23.58,34.11)
Work in the dark	6.8% (3.30,13.59)	54.5% (49.26,59.64)	59.2% (53.51,64.67)

Children also reported on physical and mental health conditions resulting from their work. Figure 5 displays the percentage of children experiencing work-related health

problems by labor category. Across every physical health domain, children who are likely trafficked victims fare worse than children experiencing exploitative child labor who, in turn, fare worse

than those who engage in other child work activities. Specifically, 58% of children likely trafficked report extreme fatigue, 55% report severe stomach aches, and 50.6% report severe back and joint pain.

About 5.5% of children engaged in other child work had been injured so badly at work, they could not return the following day. Comparatively, about 21% of children experiencing child labor and 29% of those likely trafficked had been hurt badly at work.

Table 4 presents forms of restriction and violence by type of work. Those identified as likely trafficked experienced greater forms of restriction of physical and communicative freedom, such as being forbidden from leaving the worksite, prevented or restricted from communicating freely with family or other workers, or from seeking medical care.

They also reported greater experiences of negative consequences after refusing to work. Among children that reported they were not able to change employers, likely trafficked children also report greater exit costs if they were to change employers. Sexual violence was rare, however children in child labor or trafficking situations were more likely to have experienced it. Emotional violence, such as being belittled and insulted,

Figure 5. Physical Health Problems Due to Work, by Labor Category

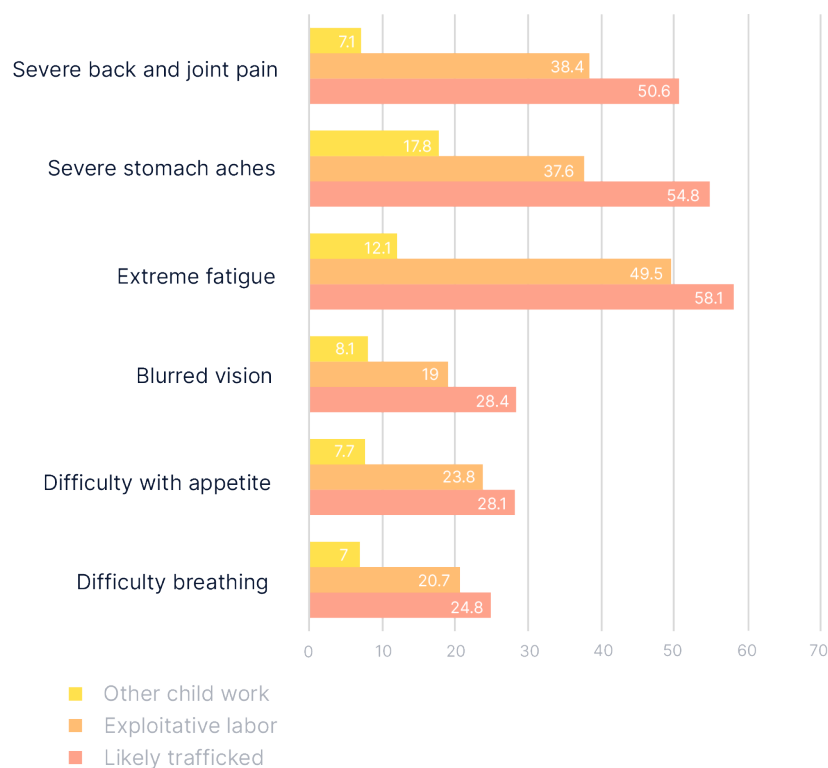


Table 4. Labor Restrictions and Experiences of Violence, by Labor Type

	OTHER CHILD WORK	EXPLOITATIVE CHILD LABOR	LIKELY LABOR TRAFFICKED
Restriction of physical/communicative	2.6% (1.07,6.14)	11.5% (8.63,15.23)	29.3% (24.40,34.69)
Experienced negative consequences of work refusal	-- ^a	2.0% (0.93,4.23)	22.1% (17.61,27.46)
Exit costs	15.0% (8.4,25.2)	12.6% (9.35,16.77)	38.7% (33.20,44.45)
Sexual violence	0%	2.2% (1.13,4.09)	5.9% (3.81,8.98)
Emotional violence	-- ^a	12.3% (9.36,16.00)	25.3% (20.74,30.52)
Physical violence/threats	3.3% (1.63,6.63)	20.3% (16.30,25.01)	36.7% (31.39,42.32)

^a Estimate suppressed due to the small number of children in this category

was high among those in exploitative child labor (12.3%) and even more so for likely trafficked children (25.3%). A similar pattern emerges for physical violence and threats of violence, with 36.7% of likely trafficked children experiencing such conditions.

Children also experienced mental health difficulties associated with work. Less than 9% of kids engaged in other child work said they felt sad, depressed, or hopeless or had little interest in things. Children engaged in exploitative child labor reported greater sadness/hopelessness (26.9%) and little interest in things (21.0%). About 40% of likely trafficked children expressed each of these sentiments.

Likely trafficked children also report the lowest rates of school attendance (72.1%), compared to those experiencing child labor (79.1%), and those experiencing other working conditions (85.7%).

MIGRATION PROFILES

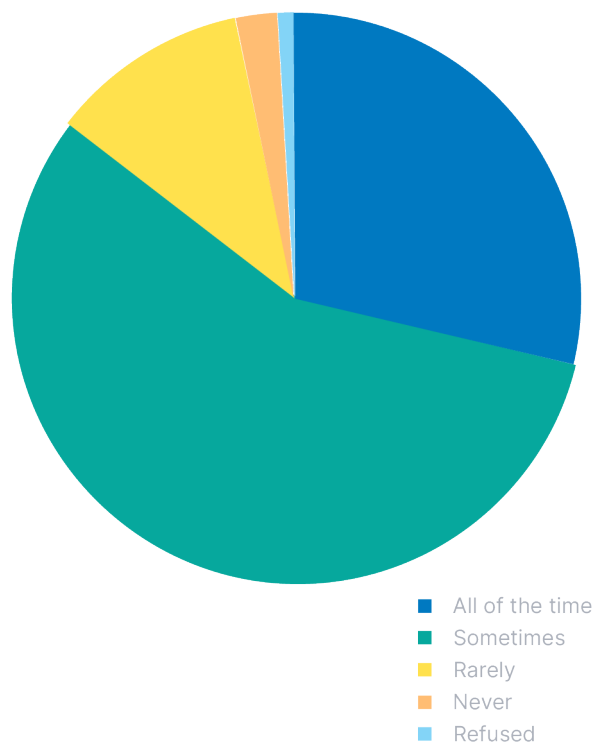
Of children who came to their current village to work or for their families to work, 69.3% came with their parents, and 26.8% came with other relatives. Only 2.6% reported coming with a non-relative and <1% with an agent of a fishing business. Depending on the district, approximately 4-15% of children came from other villages within the same district, about 18-44% did not know which district they came from, and the remainder identified a specific district outside their own. In particular, children residing in Kwahu Afram Plains were least likely to report traveling from elsewhere in the district and most likely to report not knowing which district they were from. Children reported traveling for an average of 9.6 hours to arrive at their current village and reported coming to their current village approximately 4 years prior. On average, children migrated to their current village around age nine. However, those who were less than 10, came on average around age 6.

COMMUNITY OBSERVATIONS BASED ON ADULT INTERVIEWS

Most adults in these communities are working in fishing or fishing-related tasks (preparing for sale, etc). Of these adults, about 75.5% report their own children work in fishing and the majority (62.6%) are supervising one or two children while working (this

includes their own children). It is quite common to observe children engaged in fishing tasks (Figure 6), with 28.6% saying they see children working in fishing “all the time” and 57.7% reporting they see children working some of the time. Most parent/caregivers note that they observe mostly adults working in fishing (77.6%), but 10.5% report it is about the same number of children as adults, and 8% report it is more children.

Figure 6. Frequency of Observing Children Working in Fishing by Parent/Caregivers



About 10.7% say they have seen boys working in fishing being treated badly, whereas only 2.5% report they have seen girls being treated badly. Nearly a fifth of parent/caregivers have seen children engage in dangerous fishing tasks like diving in the water to retrieve nets. About 12% of parent/caregivers also believe children working in fishing are not usually free to quit. Unfortunately, about 5.1% of parent/caregivers also knew of a child who died working on the lake. Despite all of this, respondents still largely believed most children enjoyed working on the lake, with only 18.6% reporting that most children do not enjoy working in fishing. Although they noted

specific tasks that they believed children found enjoyable (e.g. sorting fish or swimming in the lake), they most commonly believed children enjoyed earning money to spend or to contribute to their family's earnings.

Knowledge of labor laws is somewhat limited (Table 5). Only 9.4% report their employer (or themselves if they are self-employed) is familiar with most labor laws. In contrast, 24.7% report their employer has little knowledge and an additional 37.2% do not know how knowledgeable their employer is about labor laws in fishing.

Table 5. Fishing Labor Law Knowledge of Employers

RESPONSES	PERCENTAGE
Employer is familiar with most laws	9.41
Employer has some knowledge	28.66
Employer has little knowledge	24.69
Don't know how knowledgeable employer is	37.24

About 18% of parent/caregivers knew of at least one child that was brought to their village to work. They observed that children most commonly came around age 10, or 12, or 15. Respondents also noted that they believed the majority were brought here either by their employer or by extended family members. About half of respondents who knew of children who were brought here to work noted that they were in the village for less than a year.

In terms of other indicators of child trafficking and labor, many community members also know of a child not living with a parent or relative in their village (30.5%) or of a school age child not attending school (34.2%). Respondents noted that one of the primary reasons children didn't attend school was so that the child could work, help pay off debt, or otherwise help with their family's economic situation (31%). Other challenges included not having a school close by or teacher absence.

LIMITATIONS OF THIS STUDY, RECOMMENDATIONS FOR FUTURE RESEARCH

Despite the considerable efforts to establish community buy-in and enumerator-participant rapport, challenges remained. While our enumerators believed most children and adults were being honest, and virtually none were being outright misleading, about 13% believed their adult or child respondent was not entirely forthcoming. We also cannot discount the possibility that the fear of other action/rescues may have impacted either a family's willingness to participate, or a child's specific answers. In fact, our field teams did observe instances where children would hide upon their entry into a community, often until it was clear that they were not there to take legal action.

Still other challenges were tied to the age of our children. Many were currently too young to know much about the details of their migration to their

current village (or were too young when they migrated). Others were likely too young, or not involved enough in their family's finances, to know about any sort of financial arrangements/debts their parent/caregivers might have with their employer. This has implications for our ability to precisely identify labor trafficking. Future work could attempt to better understand the dynamics involved in a family's or child's migration around the time it happened and what financial arrangements might have been involved.

Protecting children from any unnecessary distress during the interview was also a critical part of our research process. Therefore, we took what children said at face value, and did not probe into any claims to ascertain the veracity of it, or to extract more details about it. Certainly, such an approach is important to minimize harm, but we acknowledge that in doing so,

we may have missed additional sensitive information that would have prompted involvement of child welfare services or even requirement to report to the authorities.

Finally, it is also important to acknowledge the limits that arise from a household-based survey. As each child interviewed requires the consent of a parent-guardian, if there are children in the home that do not have a parent-guardian present, then they are not eligible to participate off the household roster. This suggests we may be missing children that are the least connected to the parent-caregiver. Additionally, although enumerators would return to the household multiple times to try to interview the randomly selected eligible child, we may be missing children that were working excessively and were not home the various times they returned for an interview.





CONCLUSION

Conclusion

Using a methodologically rigorous process, this study attempted to estimate the prevalence of likely trafficked victims in fishing around Lake Volta. We find almost 40% of children are likely trafficked victims and an additional 45% are engaged in exploitative child labor that is difficult and harmful.

Children identified as likely trafficked face particularly harsh conditions. These children experience the harshest working conditions and severe consequences. They are more likely to face exit or work refusal costs and have restrictions on their personal freedom. These children also are most likely to experience various forms of workplace abuse, most commonly emotional belittling and physical aggressiveness (i.e. pushing, hitting).

This study provides evidence that children engaged in fishing labor around Lake Volta are at risk of work-related physical harm or poor mental health. We

also find that work interferes with children's school attendance and that for many children work hours are excessive on top of the demands from attending school.

Recent Ghanaian government efforts to eliminate the worst forms of child labor include increased investigations and convictions, the development of standard operating procedures for child protection, and increased training for labor inspectors.¹⁶ Though efforts to minimize such labor practices (from government investigations to NGO interventions) exist in these districts, further efforts are needed to address such pervasive and dangerous child labor conditions. Immediate intervention is needed for many of these children, with 30% feeling hopeless because of their working conditions. Community efforts should also address knowledge of child labor laws as the vast majority of parent/caregivers noted their employers were not very knowledgeable about such laws.



Note: photos used throughout this report are stock images, not photos of victims.

16 U.S. Department of Labor. 2022 Findings on the Worst Forms of Child Labor: Ghana

APPENDICES



Appendix A. Child Labor Categorization

Table A1. Trafficking Definition and Item Mapping

	A RECRUITMENT BY ABUSE OF VULNERABILITY	B COERCION AT DESTINATION	C ABUSE OF VULNERABILITY AT DESTINATION	D EXPLOITATION
Strong	<ul style="list-style-type: none"> Not living in hometown and hometown is another district or country or lengthy transportation time. Migrated with non-relatives or agents of a fishing business. Came to village to work on lake. 	<ul style="list-style-type: none"> Forced to work when refused/or didn't want to AND there were consequences to refusing (e.g. physical violence/restraint, deprivation of food/water/sleep, emotional violence). Exit costs to leaving job Someone else was paid for their work of 20+ hours a week Working to pay off own or family debt Enumerator reports child asked for assistance or might need assistance 	<ul style="list-style-type: none"> Living with someone other than biological relatives 	<ul style="list-style-type: none"> Excessive working (≥ 40 hours per week) OR engage in ≥ 9 of 14 work tasks (e.g. cleaning nets, paddling boat, sorting fish, preparing fish for sale, smoking fish) Dive to retrieve nets Going underwater Not attending school because they have to work Working before sunrise Working after sunset Going out on lake 2+ times a day No breaks within a ≥ 6 hour work day. Regularly does not eat any meals in a day. Goes hungry/does not have enough to eat 6+ days a week Has regularly experienced negative physical/emotional symptoms because of work (e.g. blurred vision, difficulty breathing, feeling sad, down, depressed, or hopeless). Employer used physical, emotional, sexual intimidation to compel work.
Moderate	<ul style="list-style-type: none"> Not living in hometown but hometown is elsewhere in the district. Traveled to village with relatives. Came to village so family could work on the lake. 	<ul style="list-style-type: none"> Experienced other physical or communication restrictions. Not paid (and no one else is either) for their work of 20+ hours a week. Someone else was paid for their work of < 20 hours a week. 	<ul style="list-style-type: none"> Living with other relatives (not biological parents) State living with parents but traveled to town with Agents of a Fishing Business 	<ul style="list-style-type: none"> Excessive working (30-39 hours per week) OR engage in 7 or 8 of 14 work tasks (e.g. cleaning nets, paddling boat, sorting fish, preparing fish for sale, smoking fish) Engages specifically in work tasks on boat/in lake Likely interference of school with work (attending school, but working 5+ days a week and 30+ hours a week) Goes out on lake at least once a day for work Regularly eats only one meal a day Goes hungry/does not have enough to eat 4+ days a week

Table A1. Trafficking Definition and Item Mapping Continued

Weak	<ul style="list-style-type: none"> Not living in hometown, refused to answer 			<ul style="list-style-type: none"> Excessive working (20-29 hours per week) OR engage in 5 or 6 of 14 work tasks (e.g. cleaning nets, paddling boat, sorting fish, preparing fish for sale, smoking fish) Specifically engages in smoking/ preparing fish or street hawking Potential interference of school with work (attending school, but working 3/4 days a week and 20-29 hours a week) Cannot provide name of school or refused to answer about school enrollment Goes hungry/does not have enough to eat 2+ days a week
------	---	--	--	--

Note: These indicators are mutually exclusive and are based on international definitions, adapted when applicable to the fishing context in Ghana¹⁷.

LIKELY TRAFFICKING RULE SET

We follow ILO's set of rules for identifying membership in a given domain¹⁸ with one exception¹⁹; it is also important to highlight that we do not have an exhaustive set of the indicators laid out by the ILO, or specifically indicators of deceptive or coercive recruitment. Thus, it is possible that we are underestimating trafficking and exploitation to some extent. Individuals were identified as experiencing a given domain (columns A-D), if they experienced the following:

A. Domain A

- Three or more strong or moderate indicators.
- At least two strong or moderate indicators and one weak indicator.
- At least two strong or moderate indicators with at least one of them being: "Not living in hometown and hometown is another district or country or lengthy transportation time" or "Migrated with non-relatives or agents of a fishing business."

B. Domain B

- Three or more strong or moderate indicators.
- At least two strong or moderate indicators with at least one of them being: forced work w/anticipated consequences or anticipated exit costs.

C. Domain C

- At least one strong indicator
- At least one strong indicator paired with one or two moderate indicators

D. Domain D

- Three or more strong or moderate

17 Okech, D., Aletraris, L., & Schroeder, E. (2020). Human trafficking statistical definitions: Prevalence Reduction Innovation Forum. University of Georgia African Programming and Research Initiative to End Slavery. DOI:10.13140/RG.2.2.31986.12484
International Labor Office. (2009). Operational Indicators of Trafficking in Human Beings. [wcms_105023.pdf \(ilo.org\)](#)

18 International Labor Office. (2009). Operational Indicators of Trafficking in Human Beings. [wcms_105023.pdf \(ilo.org\)](#)

19 As we have relatively few indicators with the "abuse of vulnerability at destination", fewer indicators in turn were responsible for categorizing a child as "category C". It is important to note that a child would not be considered "likely trafficked" based on category C membership alone or in combination with only one other category, they would need at least two additional categories in addition to category C.

indicators.

2. At least two strong or moderate indicators and one weak indicator.
3. At least two strong or moderate indicators with at least one of them being: excessive work hours or going underwater for work.

Children were categorized as “likely trafficked” if they fulfilled the criteria for three or more domains noted above. They were also considered likely trafficked if they fulfilled the following combinations of only two domains: A and D, A and B, B and D, and C and D.

CHILD LABOR RULE SET

Children were categorized as experiencing “child labor” if they were not considered likely trafficked but experienced Domain D. A small number of children were also considered “child labor” if they had only evidence of B. All remaining children were considered as experiencing normal child help/work.

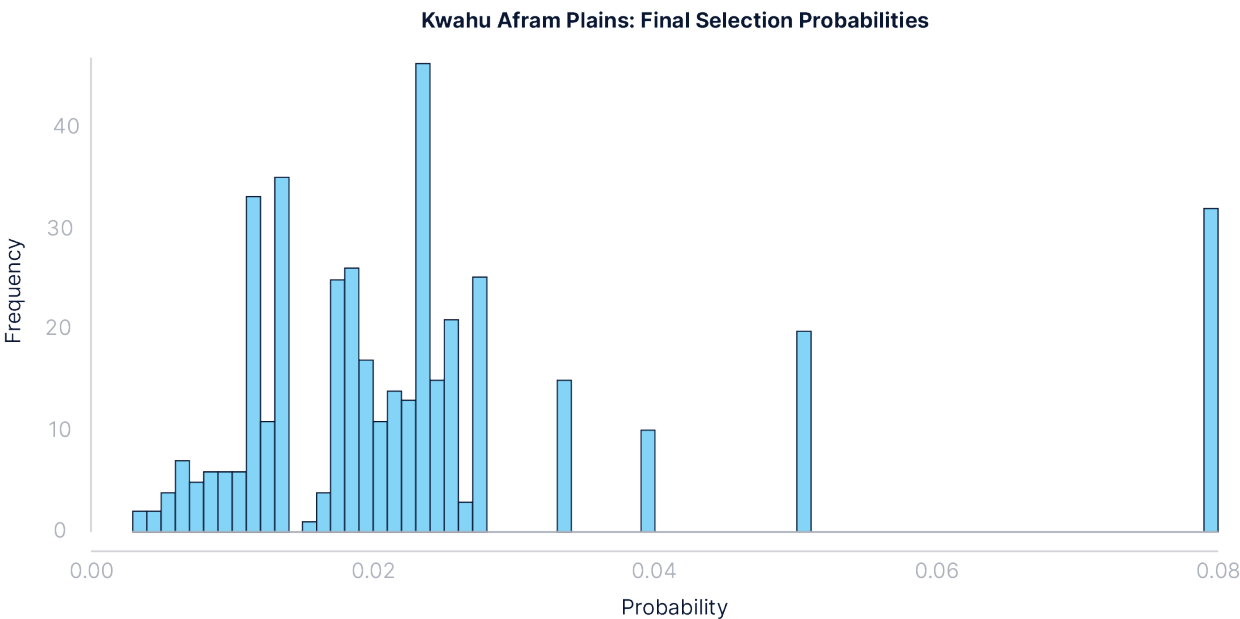
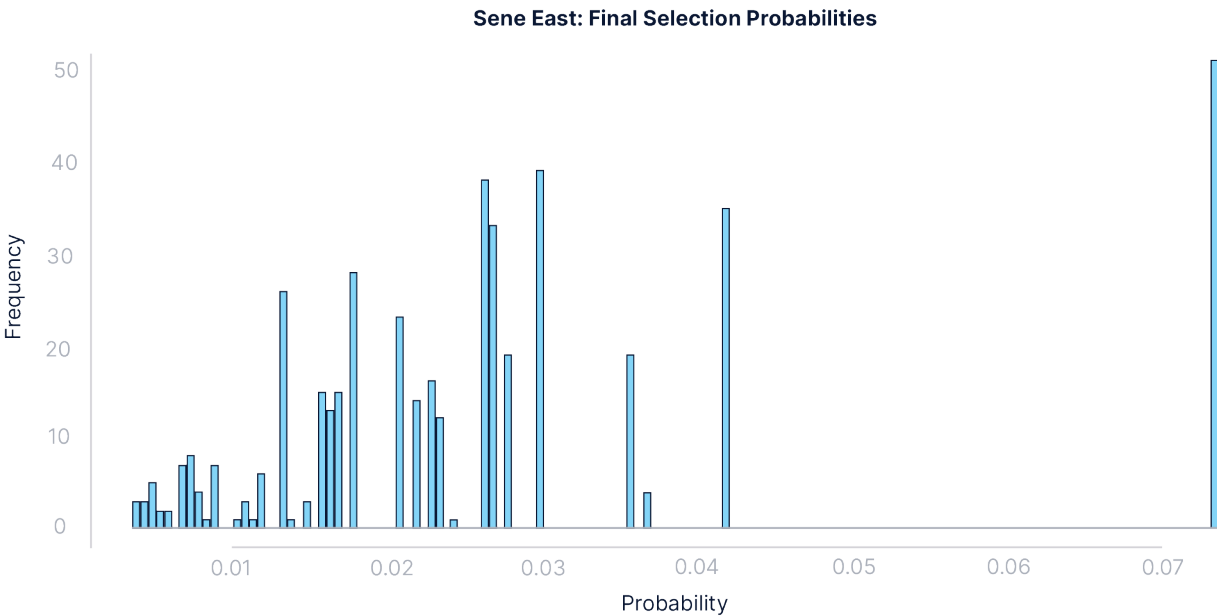
Table A2. Child Labor Categorization: % of Children in Various Domain Combinations

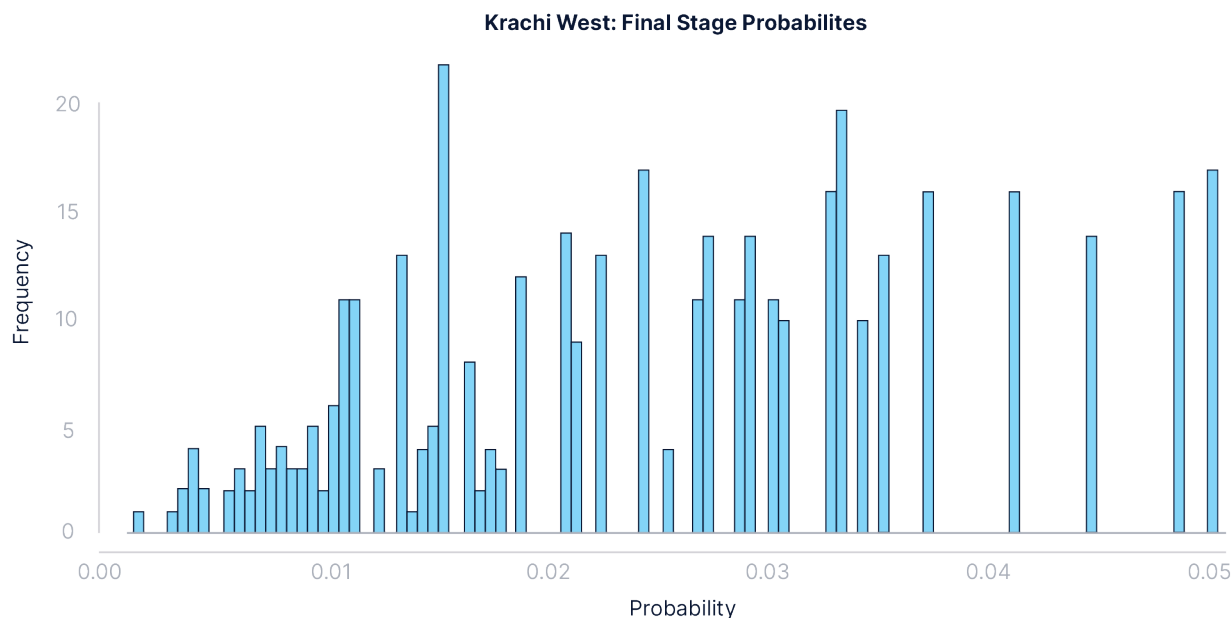
DOMAIN A	DOMAIN B	DOMAIN C	DOMAIN D	% OF CHILDREN
				12.29
				44.48
				<1.00
				<1.00
				1.24
				12.05
				<1.00
				3.65
				16.56
				1.17
				<1.00
				5.13
				<1.00
				1.32
362	266	56	1,056	1,286

Note: Colored cell indicates presence of that domain

Appendix B. Sample Calibrations

The figures below present histograms of the final selection probabilities of the individuals, separated by district of residence.

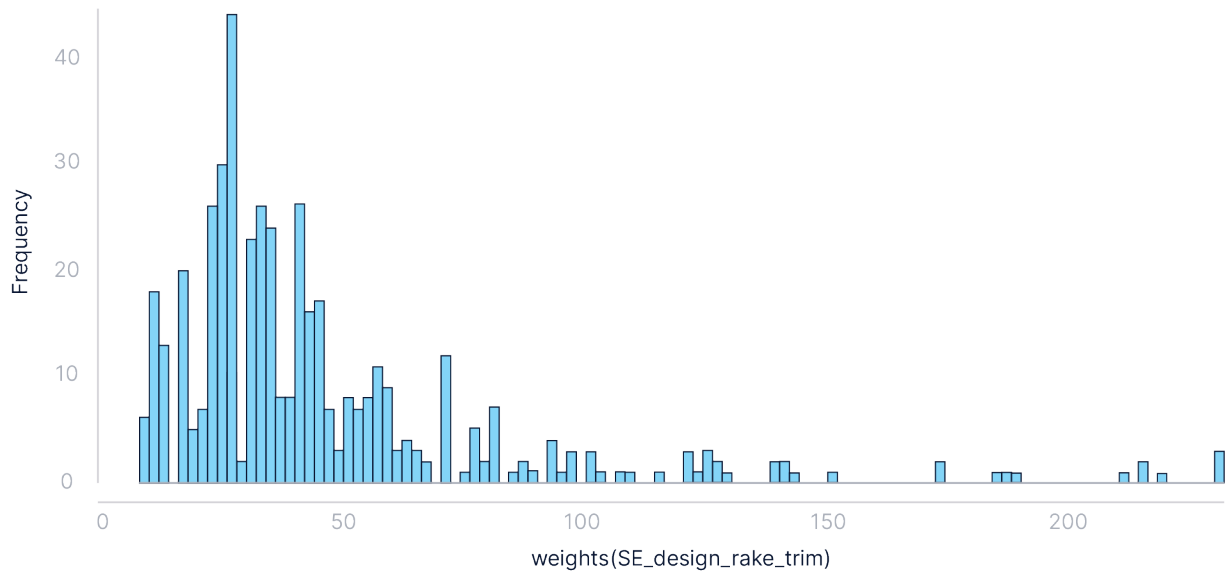




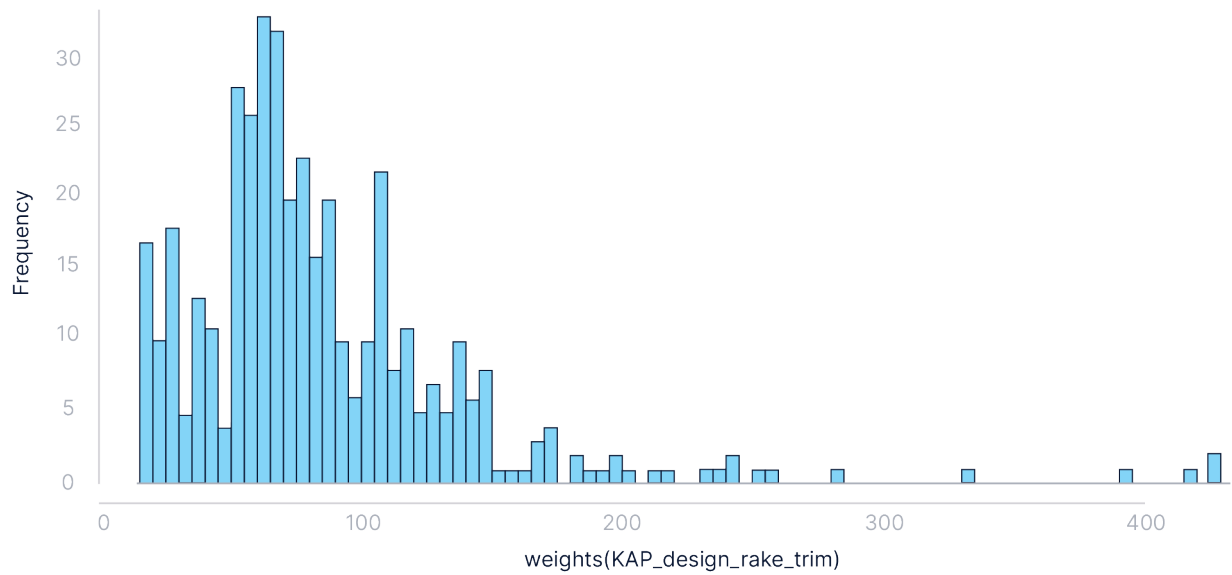
A raking ratio sample calibration routine (Deville, Särndal, and Sautory, 1993) was applied separately to each of the Krachi West, Kwahu Afram Plains, and Sene East district samples. The calibration routine was based on total census counts of age and gender variables. The age variable was categorized by ages 8 and 9, 10 to 14, and 15 to 17 years of age, and the gender variable was categorized by male or female. The inverse of the selection probabilities of the individuals served as the base weights for the routine, and these were iteratively adjusted in such a manner to sum to the population counts for each calibration variable.

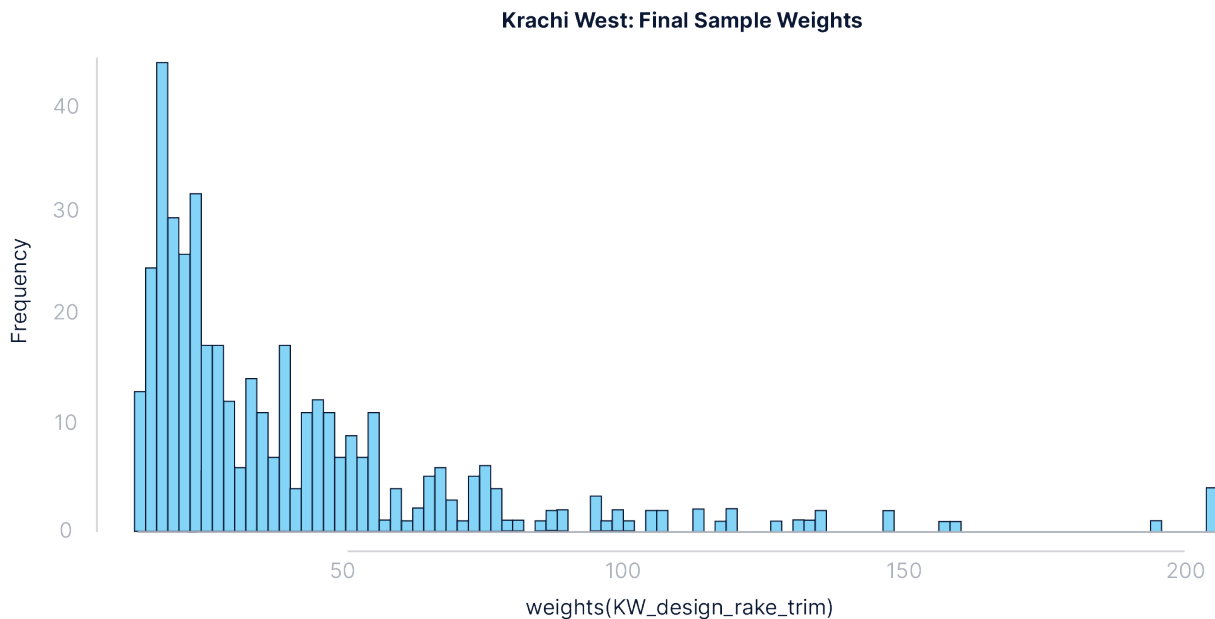
The sample calibration routine resulted in extreme weights for a subset of the sampled individuals; when extreme weights are calculated the estimates for survey variables may be too strongly influenced by the observations of the corresponding individuals. As suggested by Battaglia et al. (2004), the sample weights for each of the three districts were trimmed to five times the mean of the corresponding full set of weights for each district. The figures below present histograms of the final trimmed weights of the sampled individuals, separated by district of residence.

Sene East: Final Sample Weights



Kwahu Afram Plains: Final Sample Weights





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Appendix C. Survey instruments in English

Ghana Child Labour Survey (Fishing)

ID. Survey Number ____ (assigned at data entry)

ID1. Data entered by: ____; ID2. Date of entry: ____/____/____

A. SURVEY ADMINISTRATIVE RECORDS

Region	District	Enumeration Area Name: _____
Community Name	Language of Interview	Child Survey Number/A1g. Confirm Child Survey Number
Interviewer ID	Date of Interview (DD/MM/YYYY): ____/____/____ Start time of survey (24-hours format) _____	

ENUMERATOR SAMPLING (THIS SHOULD BE ANSWERED BY THE ENUMERATOR, AT THE HOUSEHOLD LEVEL TO ASSIST WITH CHILD SELECTION AND LATER SAMPLING CALCULATIONS)

Enumerator Sampling:			
	HH consent	Do you agree to be interviewed (asked of parent/guardian before asking questions about HH composition)	
	children sampling	How many children live in the home? (asked of adult to determine focal child)	_____ number of children living in the household
	children consent	How many of these children are you parent/guardian for? (asked of adult to determine focal child)	_____ number of children living in the household that the adult can consent for
	children available	How many of the children that you are parent/guardian for are currently available to be interviewed? (asked of parent/guardian to determine focal child)	_____ number of children available to be interviewed

INFORMED CONSENT

Subject eligibility: Any youth between 8 and 17 years of age, currently working or worked in past 12 months for someone (including his/her own family) in the fishing business.

A5. What is your age: ____; > **discontinue interview if 7 and younger, or 18 and older**

A5a. Gender of respondent: (1) Male; (2) Female; (8888) Other (Specify) _____`

Hello, my name is _____, and I am working for Kantar to conduct a survey on the situation of children in this area. It will take about 30 minutes of your time. There is no right or wrong answers to any question. Your opinions and experiences are important to us. There is no harm in taking the survey. You can stop the interview at any time or not answer questions you don't feel comfortable. We are talking to hundreds of children in this state and will only report findings in groups of numbers. We will not tell anyone what you will be telling us.

A6. Would you be willing to talk to us and answer some questions?

(1) Yes > **Continue interview>> B1**; (2) No > **TO "REFUSAL"**

REFUSAL

If the person refuses or does not want to take the survey...