Human Trafficking Data Lab

We are a multidisciplinary research collaboration with both academic expertise and frontline anti-trafficking experience working to bring the most promising innovations in research methods and modern data science to the fight against human trafficking.

- Research motivated by stated needs of frontline anti-trafficking actors, including the development of action-focused tools
- Aim to understand not only prevalence, but also social, economic, and political drivers and consequences of human trafficking
- Ensure robust gap analysis involving diverse stakeholders before starting new research
- Local stakeholders and students involved in all projects

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Motivation

Labor trafficking in Brazilian agriculture is well known in many key subsectors

Brazilian beef farms 'used workers kept in conditions similar to slavery'

Workers on farms supplying world's biggest meat firms allegedly paid £8 a day and housed in shacks with no toilets or running water

Cattle graze on feed ration on a ranch in Barretos. Photograph: Bloomberg/Getty

Brazilian companies and slaughterhouses including the world's largest meat producer, JBS, sourced cattle from supplier farms that made use of workers kept in slavery-like conditions, according to a new report.

Brazilian wineries involved in a slave labor scandal

By Thiago Alves   March 7, 2023

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São Paulo, Brazil – Brazil's Federal Police along with the Ministry of Labor rescued more than 200 people who were living and working in slave-like conditions in Bento Gonçalves, a city in the southern state of Rio Grande do Sul.

The workers were employees of Fênix Serviços Administrativos e Apoio a Gestão de Saúde LTDA, a company that provided services to three traditional wineries in the region, including Salton, one of the most well-known wine companies in Brazil.

Picked by Slaves

Coffee crisis brews in Brazil

Fabio Teixeira | Thomson Reuters Foundation

12 December 2019

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Motivation

Agriculture is the most common sector among detected cases
- ➢ More than 50% of Brazil's Dirty List are agricultural producers
- ➢ 61% of known trafficking cases were found in cattle, sugar, coffee, and forestry alone

However detected cases are not prevalent cases
- ➢ Case detection may have biases of unknown magnitude and direction – can not provide representative sector-wide prevalence
- ➢ Existing data is insufficient for understanding the most common exploitative practices, the relative risk in each subsector, and the profile of at-risk farm workers

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Goals and Objectives

Trafficking prevalence
- ➤ Estimate the prevalence of human trafficking in Brazil's agricultural sector using a gold standard representative household survey in four states with highest proportion of agricultural workers
- ➤ Estimate the relative prevalence of specific exploitative practices (indicators) that contribute to trafficking conditions among Brazilian agricultural workers
- ➤ Compare representative survey-based prevalence to NSUM prevalence

Risk profile
- ➤ Determine the profile of workers at risk of trafficking
- ➤ Determine the relative risk of trafficking across agricultural subsectors (intensity)

Policy implications
- ➤ Compare prevalent cases to the portfolio of detected and prosecuted cases
- ➤ Identify key biases in detection and prosecution
- ➤ Identify potential policy interventions to protect workers

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Methods – Sampling

Sampling strategy:

➤ Four states selected

➤ 18 municipalities randomly sampled weighting for proportion of households in agriculture

➤ 210 study clusters (census units)

➤ All households listed to determine if agricultural workers lived within

➤ Agricultural households sampled in real time until a max of 35 households per study cluster were included
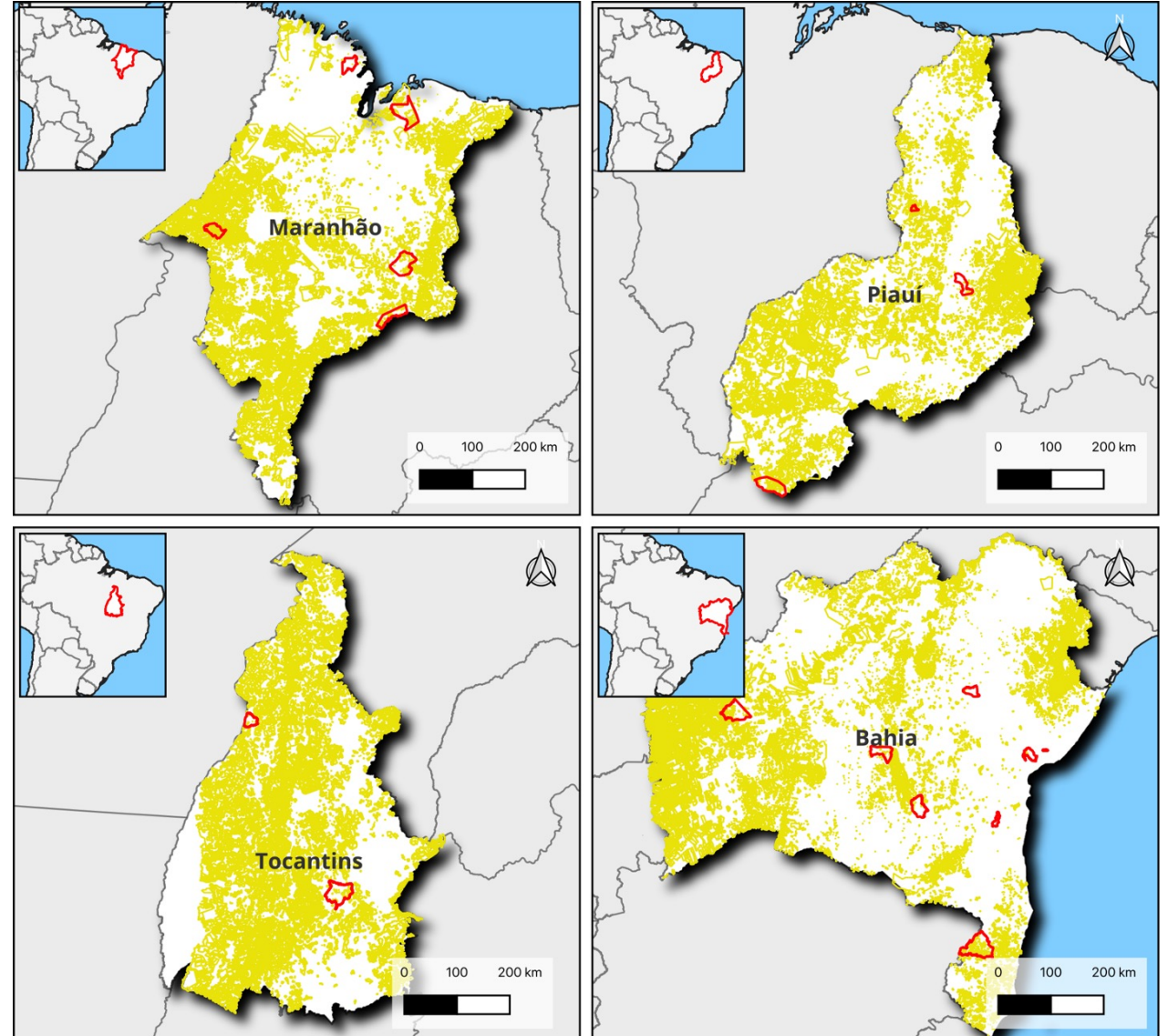
Methods - Prevalence Estimation

Method 1: Population Representative Household Survey
➢ Total of 10,825 agricultural workers in 7,277 households included
➢ 43% of workers employed on farms not owned by family members
➢ Detailed work histories used to assess trafficking among all eligible farm workers (not employed on family farms, and having completed a job spell within the past 2 years)

Method 2: Network Scale Up
➢ Network data collected among a total of 2,085 agricultural workers
➢ Alter groups defined by most common first names for men and women across 10-year age groups
➢ Focus on most commonly-occurring trafficking indicators (sufficient to meet trafficking threshold)
   ➢ Future "double scale up" adjustment using survey results

Results - Survey-Based Trafficking Prevalence

Prevalence of trafficking among all agricultural workers and hired agricultural workers
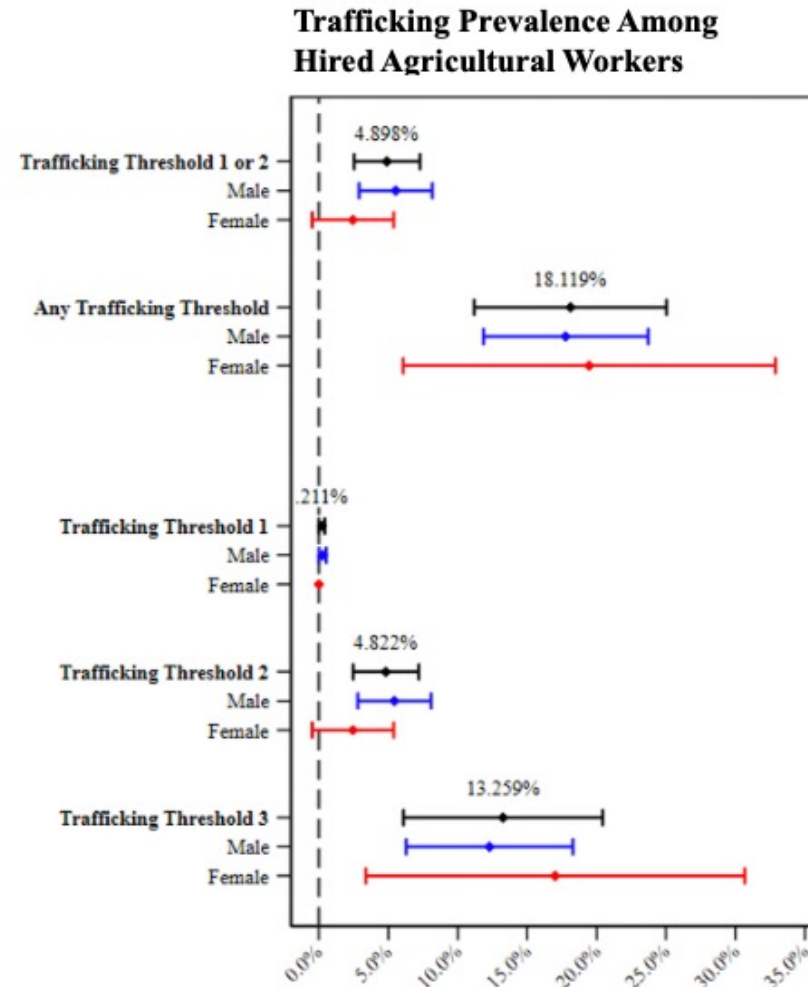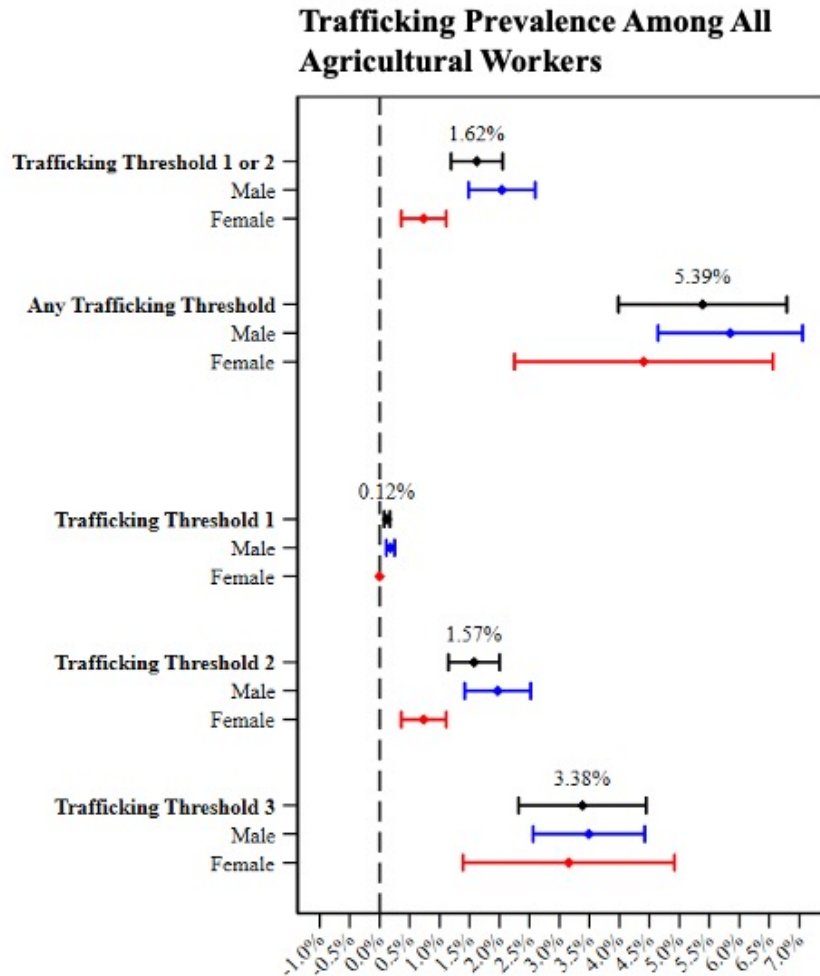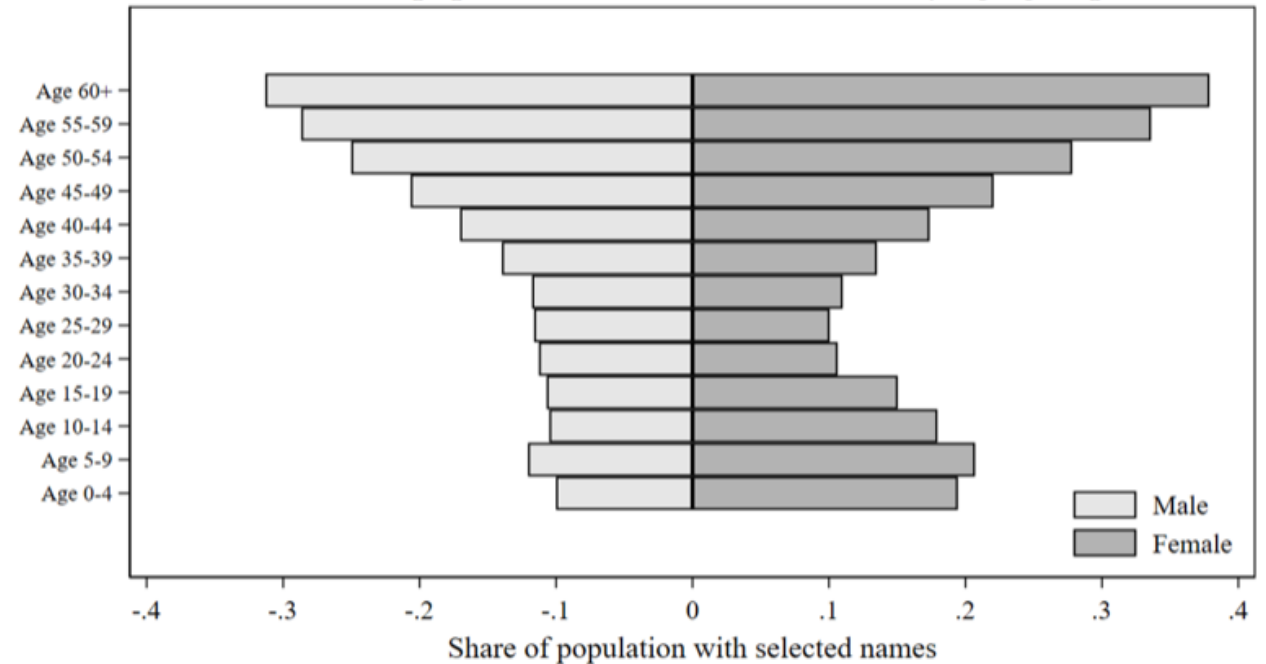
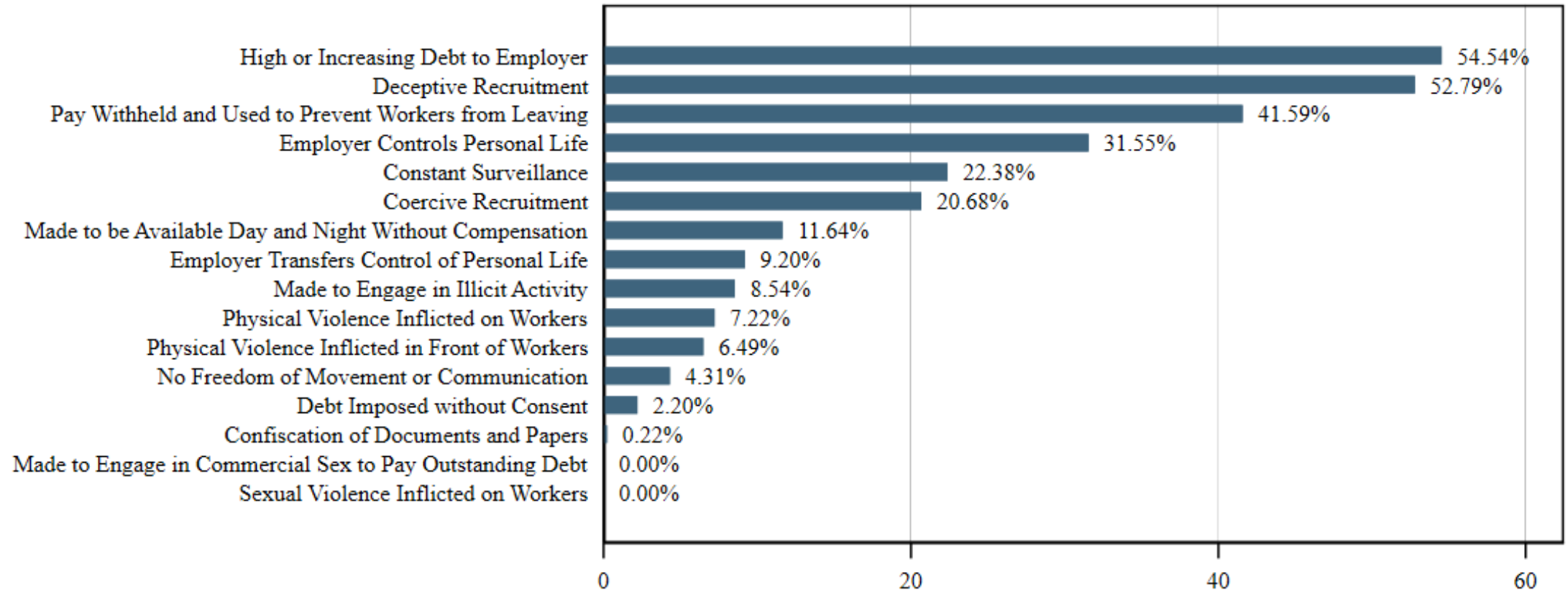# Results – NSUM Trafficking Prevalence

Network Scale up Results

➤ Selected alter groups represent 10-38% of population in each age group by sex

➤ Average implied network size of respondents was 58.56 agricultural workers

➤ Implied NSUM estimate of trafficking rate among hired agricultural workers was 3.05% [1.34-6.64]

Results - Trafficking Prevalence

Prevalence of strong trafficking indicators among trafficked agricultural workers

Indicator	Percentage
High or Increasing Debt to Employer	54.54%
Deceptive Recruitment	52.79%
Pay Withheld and Used to Prevent Workers from Leaving	41.59%
Employer Controls Personal Life	31.55%
Constant Surveillance	22.38%
Coercive Recruitment	20.68%
Made to be Available Day and Night Without Compensation	11.64%
Employer Transfers Control of Personal Life	9.20%
Made to Engage in Illicit Activity	8.54%
Physical Violence Inflicted on Workers	7.22%
Physical Violence Inflicted in Front of Workers	6.49%
No Freedom of Movement or Communication	4.31%
Debt Imposed without Consent	2.20%
Confiscation of Documents and Papers	0.22%
Made to Engage in Commercial Sex to Pay Outstanding Debt	0.00%
Sexual Violence Inflicted on Workers	0.00%

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Results – Trafficking Prevalence

Overall prevalence of strong trafficking indicators among all hired agricultural workers

Percent of Hired Agricultural Workers Experiencing Strong Trafficking Indicators

Indicator	Percent
Pay Withheld and Used to Prevent Workers from Leaving	17.25%
Deceptive Recruitment	7.49%
High or Increasing Debt to Employer	4.88%
Employer Controls Personal Life	2.04%
Physical Violence Inflicted in Front of Workers	1.57%
Coercive Recruitment	1.46%
Constant Surveillance	1.23%
Made to be Available Day and Night Without Compensation	0.92%
Made to Engage in Illicit Activity	0.56%
Employer Transfers Control of Personal Life	0.48%
Physical Violence Inflicted on Workers	0.35%
No Freedom of Movement or Communication	0.21%
Debt Imposed without Consent	0.11%
Sexual Violence Inflicted on Workers	0.02%
Confiscation of Documents and Papers	0.01%
Made to Engage in Commercial Sex to Pay Debt	0.00%

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Results - Trafficking Prevalence

The vast majority of agricultural workers experience at least one trafficking indicator

➢ 95.4% experience at least one indicator, and 78% experience two or more

➢ 30% of workers experience at least one strong indicator

Number of Trafficking Indicators Experienced (Strong and Medium) / Number of Strong Trafficking Indicators Experienced / Number of Medium Trafficking Indicators Experienced
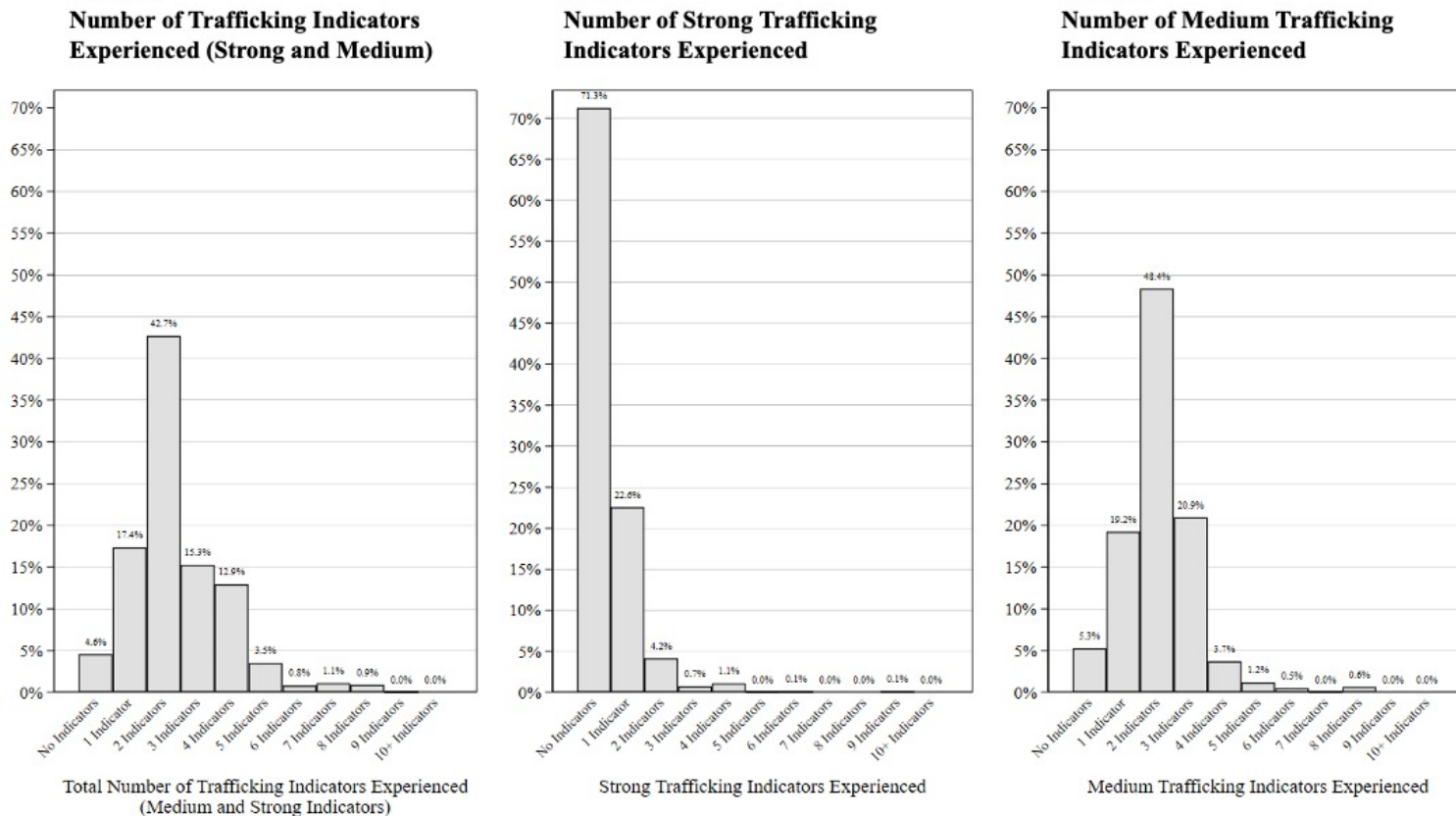
Results - Trafficking Prevalence

Concurrence among strong indicators of trafficking
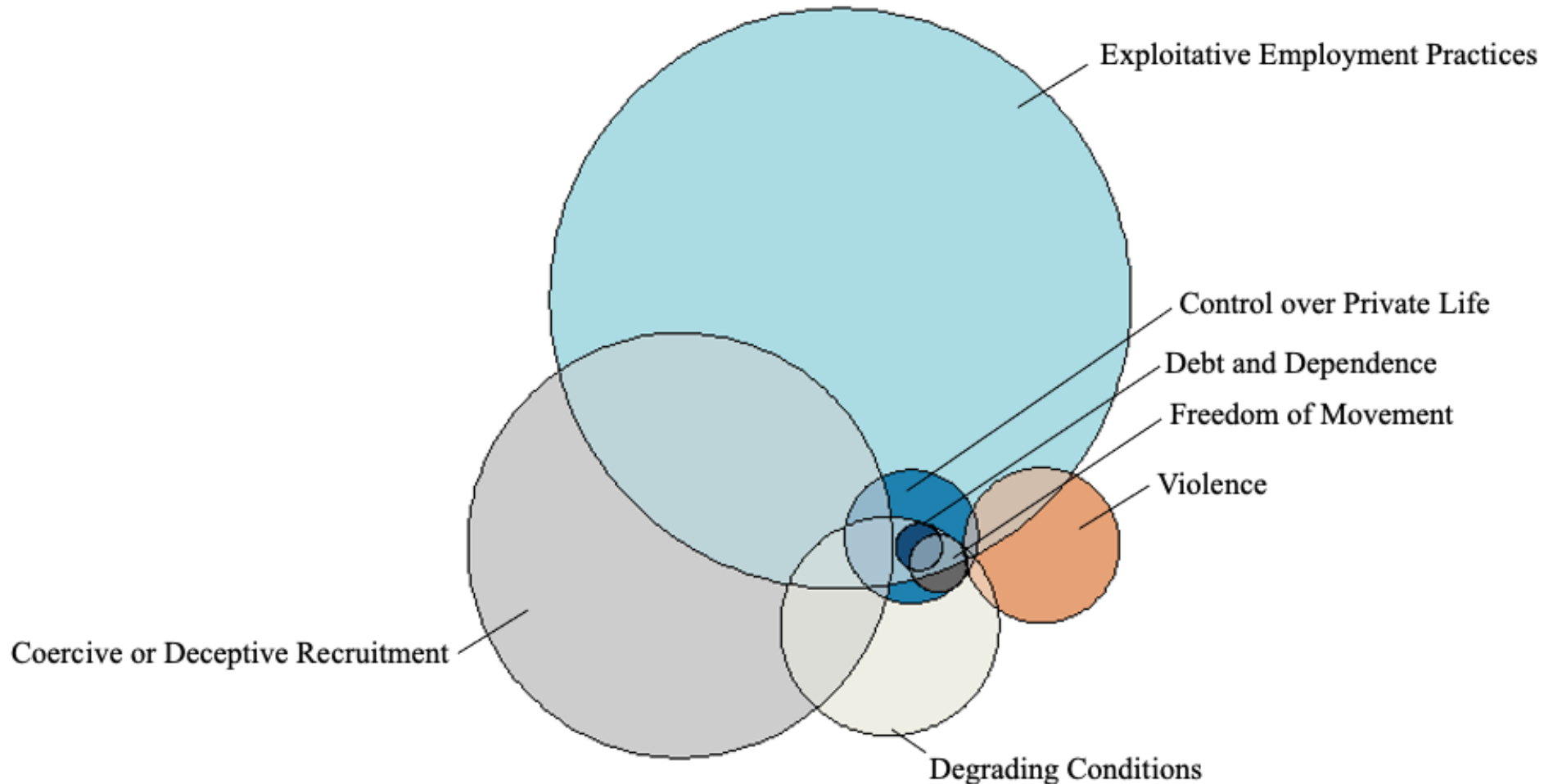
Results - Demographic Profile of Trafficking Victims

Trafficked workers are generally male, and Black or multiracial, but few are illiterate

	All Workers	Trafficked	Not Trafficked	p-value $(m^t = m^{nt})$
Sex				
Mean age	42.9 Years	36.9 Years	43.2 Years	0.01
Percent Male	77.7%	92.3%	76.9%	0.01
Percent Female	22.4%	7.7%	23.1%	0.01
Literacy				
Percent Illiterate	29.5%	8.4%	30.8%	0.00
Percent Semi-literate	17.0%	39.3%	15.9%	0.16
Percent Literate	52.9%	52.3%	53.3%	0.94
Race				
Percent White	10.9%	3.6%	11.2%	0.003
Percent Black	20.4%	28.9%	19.9%	0.26
Percent Multiracial	65.6%	67.4%	65.5%	0.84

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Results - Demographic Profile of Trafficking Victims

Trafficked workers most often work close to home, and are recruited through acquaintances, friends, or family.

	All Workers	Trafficked	Not Trafficked	p-value $(m^t = m^{nt})$
Location of work				
Local	58.3%	66.1%	74.4%	0.53
Within same municipality	36.1%	20.6%	19.5%	0.90
Within same state	4.6%	4.7%	11.1%	0.42
Other state	1.0%	3.2%	0.3%	0.17
Recruitment method				
Direct recrutiment	52.1%	34.9%	53.3%	0.03
Through acquaintance, friend, or family	46.8%	65.1%	46.1%	0.03
Paid recruiter	0.6%	0.6%	-	0.00
Contract type				
Indefinite contract	9.9%	19.8%	9.4%	0.12
Fixed contract	4.9%	9.8%	4.7%	0.33
Verbal contract	25.8%	29.0%	26.3%	0.77
No contract	57.4%	41.4%	59.6%	0.02

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Coffee, cattle, and cocoa stand out as the most trafficking-intensive subsectors

	All Workers	Trafficked	Not Trafficked	p-value $(m^t = m^{nt})$
Coffee	35.7%	27.6%	36.1%	0.51
Cocoa	8.6%	25.6%	7.6%	0.07
Beef Cattle	23.0%	24.1%	22.9%	0.81
Soy	2.0%	4.7%	1.9%	0.32
Forestry	3.3%	4.3%	3.2%	0.67
Fruits	4.4%	2.9%	4.5%	0.41
Cassava	2.0%	2.3%	1.9%	0.85
Corn	2.8%	2.1%	2.8%	0.60
Land Clearing	1.6%	0.7%	1.7%	0.40
Sugarcane	0.2%	0.6%	0.1%	0.41
Beans	0.7%	0.5%	0.7%	0.64
Carnuaba	0.3%	0.2%	0.3%	0.46
Other	15.4%	4.5%	14.1%	0.00

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Policy implications

Cocoa sector
➢ Cocoa stands out as a particularly risky subsector
  ➢ 8.6% of agricultural workers work in cocoa production
  ➢ 25.6% of workers meeting the definition of trafficking work in cocoa production
➢ Cocoa sector is not frequently represented in the corpus of detected and prosecuted cases
  ➢ <1% of workers rescued from trafficking since 1996 were producing cocoa

Local workers
➢ Workers meeting trafficking thresholds are often working close to home
  ➢ 87% of trafficked workers work in the same town or the same municipality
  ➢ Just 3.2% of trafficked workers worked out of state
➢ During trafficking inspections, local workers are often separated from migrant workers and not considered to be victims even when working together
  ➢ Over 40% of victims receiving post-trafficking social benefits were migrants from different states

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Partnership, Collaboration, and Capacity Building

Local expertise is invaluable for practical and efficient implementation

➢ Appropriate sample cluster selection

➢ Professional, ethical survey administration

➢ Informed, real time quality control and course correction

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Partnership, Collaboration, and Capacity Building

Rigorous, indicator-based trafficking assessment among frontline stakeholders
➢ Post trafficking needs assessment and digital case management systems
➢ Opportunities for tracking policy-relevant trends and broad comparability

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Partnership, Collaboration, and Capacity Building

Extensions to transient workers
➤ Unknown in scale, but some workers may not have permanent homes (*peão de trecho*)
➤ Potentially characteristic of the high-risk charcoal sector

Partnership with survivor led advocacy group
➤ Trusted network of advocates – opportunity for respondent driven sampling approaches
➤ Little experience administering formal questionnaires

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Challenges, Limitations, and Lessons Learned

Ethical guidance
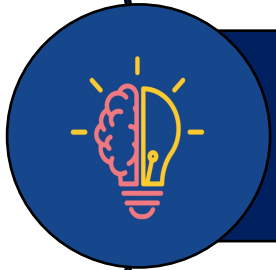
Can't know what you don't know

NSUM implementation

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Research Value and Impact

- Policy relevant findings: *"Commonplace exploitation among agricultural workers trafficked intermittently, working at local jobs found through potentially trusted networks."*
- Working with enumeration partner to plan presentations of findings to relevant Brazilian stakeholders
- Findings are part of a draft paper that compares with inspection reports, task force records, Dirty List details, social safety net program enrollment to get a fuller picture of trafficking and better understand each data sets advantages / limitations
- Inform future PRIF research on charcoal sector using satellite-based object detection technology and improved survivor service delivery models
- Exploring the incorporation of relevant questions in regularly enumerated national labor surveys, a longitudinal survey of some 200,000 households collected every three months

	Advantages	Disadvantages
Survey Data	- Representative - High levels of granularity/detail	- Expensive - Time-intensive; infeasible to repeat often for surveillance
Admin. Data	- Low cost - Provide high-frequency time series data - Enable linkages across datasets	- Little/no control over data fields - "Tip of the iceberg;" selection biases are unknown in magnitude and direction - Variable quality

Prevalence surveys and administrative data can play important complementary roles in actionable, policy relevant research focused on "what works and why"

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