

Methodological Assessment
of
Research on Indicators of Forced Labor in the Supply Chain of Sugar in the
Dominican Republic by Verité

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June 4, 2013

Executive summary

Verité carried out research on the presence of indicators of forced labor in the Dominican sugar sector, a large portion of which are Haitian migrants. The research was not intended to determine the existence of the scale of forced labor, but rather to identify the presence of indicators of forced labor and factors that increased workers' vulnerability to labor exploitation. Nevertheless, the authors of the report claim that their research detected evidence of: (1) lack of consent (or workers could not freely leave their jobs), because of fear of violence, induced indebtedness, and retention of identity papers; and (2) menace of penalty for leaving a job, such as threat of violence and deportation.

We strongly disagree with the main finding of the report that indicates the presence of forced labor in the sugar industry in the Dominican Republic. The main reason for our conclusion rests on severe flaws during the design and implementation of the research and, in particular, the worker's survey, which render the main empirical findings severely biased, and can be expected to lead to misleading policy conclusions.

Analyzing the survey results reveals that just one percent of the interviewed workers answered (actually the relevant question was never asked directly) the incomplete questionnaire in a manner that they could be classified as forced laborers. This raises the question whether this one percent is representative of the Dominican sugar industry and thus represents a sufficient share of workers to arrive at meaningful policy conclusions. After assessing the sample selection process and its implementation, we are convinced that the reported results are subject to substantial, non-quantifiable sampling bias leading to an overly pessimistic view of forced labor in the sugar cane industry.

Accounting for the fact that although the 'one percent' might not represent a representative statistical cohort of workers in the sugar cane industry, we believe that these respondents still do exist. This in turn raises the question whether a sufficient number of questions are accurately classifying individuals as forced laborers. Per this question, we see no clear connection between theoretical concepts and constructs and survey variables due to both misspecification of questions and omitting important questions. In this respect, including more targeted and context specific questions into the survey would have been necessary in order to underpin and validate the core 'claims' of the report. However, the researchers have chosen not to control for these context specific effects and thus the research results are doubtful.

Our main conclusion is that due to sampling and non-sampling errors, the survey results cannot be used to support policy. More importantly, whether forced labor is still present in the sugar industry in the Dominican Republic is highly doubtful.

Summary of Verité report

Objective. Verité carried out research on the presence of indicators of forced labor in the Dominican sugar sector, a large portion of which are Haitian migrants. The research was not intended to determine the existence of the scale of forced labor, but rather to identify the presence of indicators of forced labor and factors that increased workers' vulnerability to labor exploitation.

Methods. The actual research was carried out by a Dominican Republic-based NGO, the Research Center for Feminist Action using a combination of qualitative and quantitative methods. The quantitative worker survey of 740 workers used non-probability sampling; thus, the "findings from this study are biased" (Verité, 8). To overcome this challenge, the researchers used multiple sources of both quantitative and qualitative information to empirically validate findings. This included a literature review, expert consultations with a variety of stakeholders, interviews with employers and workers, and focus groups.

Main finding. Following ILO guidelines, the research detected evidence of (1) lack of consent (or workers could not freely leave their jobs), because of fear of violence, induced indebtedness, and retention of identity papers; and (2) menace of penalty for leaving a job, such as threat of violence and deportation.

1 Introduction

This report is an empirical assessment of the report 'Research on Indicators of Forced Labor in the Supply Chain of Sugar in the Dominican Republic' on behalf of Verité. The main findings of the underlying report indicate that working conditions in the sugar cane industry have been exceptionally bad for Haitian guest workers and that forced labor practices are prevalent in the sugar industry.

The aim of this review is to assess the empirical robustness of empirical findings indicating the presence of forced labor in the sugar cane industry in the Dominican Republic that represent the core of the policy implications/conclusions of this report. In this regard, a particular focus of this review is to analyze and evaluate the robustness of central empirical findings of the sugar cane worker survey conducted among 740 seasonal workers, who were primarily 'new arrivals' from Haiti in the time frame between 2009 and 2011. They thought that the new arrival pool of workers was the most susceptible to indicators of forced labor.

Although we agree with the main finding on the prevalence of bad working and living conditions for sugar cane workers in the Dominican Republic, we strongly disagree with the main finding of the report that indicates the presence of forced labor in the sugar industry. Our main conclusion is that due to sampling and non-sampling errors, the survey results cannot be used to support policy. Moreover, whether forced labor is still present in the sugar industry in the Dominican Republic is highly doubtful, given the findings of the current literature and the poor

application of the ILO template for determining this in the report. Consequently we agree with the authors of the report that research “findings are not statistically representative of the Dominican Republic or the sugar sector” (Verité, 79). Our concurrence of the poor working and living conditions finding stems from the overwhelming number of respondents in the survey reporting the following: working more than 12 hour days (with few breaks) and 7 days a week in order to earn a reasonable income, and living without a bed, electricity, potable water and sanitary services. Moreover, 99 percent of the respondents reported living in employer-owned housing.

2 Empirical Assessment of the Verité report

The empirical assessment section of the report rests on four pillars: 1.) a review of scientific literature and other non-academic sources documenting labor right violations in the sugar cane industry in the DR; 2.) labor and human rights/advocate/ expert interviews; 3.) onsite focus group interviews with sugar cane workers; and 4.) a survey of migrant sugar cane workers. The main conclusions/policy implications are drawn from the qualitative (e.g. focus group) and quantitative (e.g. survey), on which this assessment of the robustness of findings will rest.

2.1 Review of the Literature

This section of our paper begins with a discussion of the literature review of forced labor presented in the Verité report and is followed by an update and enhancement of that literature.

The literature review in the Verité document reports that “the prevalence of human smuggling places Haitian migrants in a situation of vulnerability to labor exploitation.” Appendix 5 of the report contains summaries of Reports on Forced Labor in the Sugar Sector. Although they site evidence of forced labor, the reports are old from the years 1953 to 1999. The main body of the report provides more current studies of possible forced labor in the sugarcane industry in the DR. The most recent study cited was a 2010 State Department trafficking report, which said “the sugar industry has been cited as vulnerable for possible use of forced labor.” That is, conditions were ripe for forced labor but the study did not conclude that forced labor actually existed. However, the authors of the report do not present any evidence that demonstrated whether extensive smuggling was still taking place.

In 2008, the ILO recognized the Dominican Republic’s efforts at “permanent inspections in the sugar sector,” but suggested that the government include “qualitative information to assess the effectiveness of the results” of the inspections (ILO, 2008). In 2010, the ILO reported that permanent inspection had been achieved in the sugar sector, in which 64 inspections were carried out from August 2009 to

January 2010, during which one violation of forced labor was found (ILO, 2010). Recent cables from the U.S. embassy in San Domingo appear to confirm the ILO report as they cite current reports of no forced labor in the sugarcane sector in the DR (see, U.S. Embassy Santo Domingo, 2011). The 2009 and 2011 cables from U.S. embassy in San Domingo, in which NGOs representing Haitian workers and their rights, inter-governmental agencies, and other humanitarian organizations were interviewed, reported no evidence of forced labor in the production of sugar, although work and living conditions in some of the bateyes (typically sugar company compounds for agricultural workers) “remained deplorable” (U.S. Embassy Santo Domingo, 2011 U.S. Embassy Santo Domingo, 2011). The 2010 State Department Human Rights Report on the Dominican Republic said that “some credible NGOs reported that, although undocumented Haitian workers were vulnerable to exploitation, forced labor was no longer used in the sugar industry” (U.S. Department of State, 2010).

The Coca-Cola Company issued a report in 2009 on Dominican Sugar that concluded “many workers remain undocumented even though their employers have followed the required legal process,” as the DR Labor Code, Article 135 says that 80 percent of workers in any company must be nationals. However, a Congressional Research Report (CRS, 2012) on the Dominican Republic concluded that lack of identity documents limits access to formal sector employment. The study further found that the major human rights issues in the DR were trafficking in persons and forced labor in the construction and service industries. They cited the Verité report as evidence of forced labor in the sugar cane industry, but noted that the sugar industry challenged it. Samuel Martinez (2012), an anthropologist in the Institute for Latino, Caribbean and Latin American Studies at the University of Connecticut, also challenged the findings of U.S. Department of Labor (USDOL) reports putting the Dominican Republic sugar industry on their list of having forced labor. (See U.S. Department of Labor’s List of Goods Produced by Child labor or Forced Labor, 2010 and 2011) Martinez (2012) reviewed the alleged forced labor designation for the Dominican Republic sugarcane industry by USDOL in their 2010 and 2011 reports and concluded they lacked an evidentiary basis. He characterized the 29 footnote citations in the report section making its case for listing the DR sugarcane industry as having forced labor as “simplistic, recycled, and anachronistic.”

The Industry challenge is based on (1) past U.S. investigations of the DR sugar industry have not found forced labor; (2) their willingness to have open external audits of the sugar sector.; and (3) promoting best practice on worker rights. Industry claims are consistent with downturn in the importance of sugar to the DR economy. It once was the primary economic driver. However, in the 1980s several factors -- including a recession in sugar-using countries, over-production, higher prices, trade restrictions, and more recently new technologies – have all led to a decline in the number of sugar workers. The DR has also developed and diversified its economy. This can be seen in Tables 1 and 2.

Table 1. Employment in the Dominican Republic by sector, selected years 1991-2010

year	Employment (percent of total)		
	Agriculture	Industry	Services
1991	20.3	22.9	56.6
2001	15.9	23.1	62.1
2009	14.5	21.9	59.8
Source: World Bank Indicators			

Table 1 clearly illustrates the continued shift from agriculture to mainly services in the DR. For example, employment in agriculture has dropped from 20 percent to less than 15 percent from 1991 to 2009 in the DR. Such

a change typically goes hand-in-hand with economic development. This is further evidenced by the changes in social indicators depicted in Table 2.

Table 2. Social indicators for the Dominican Republic for selected years, 1981 to 2011

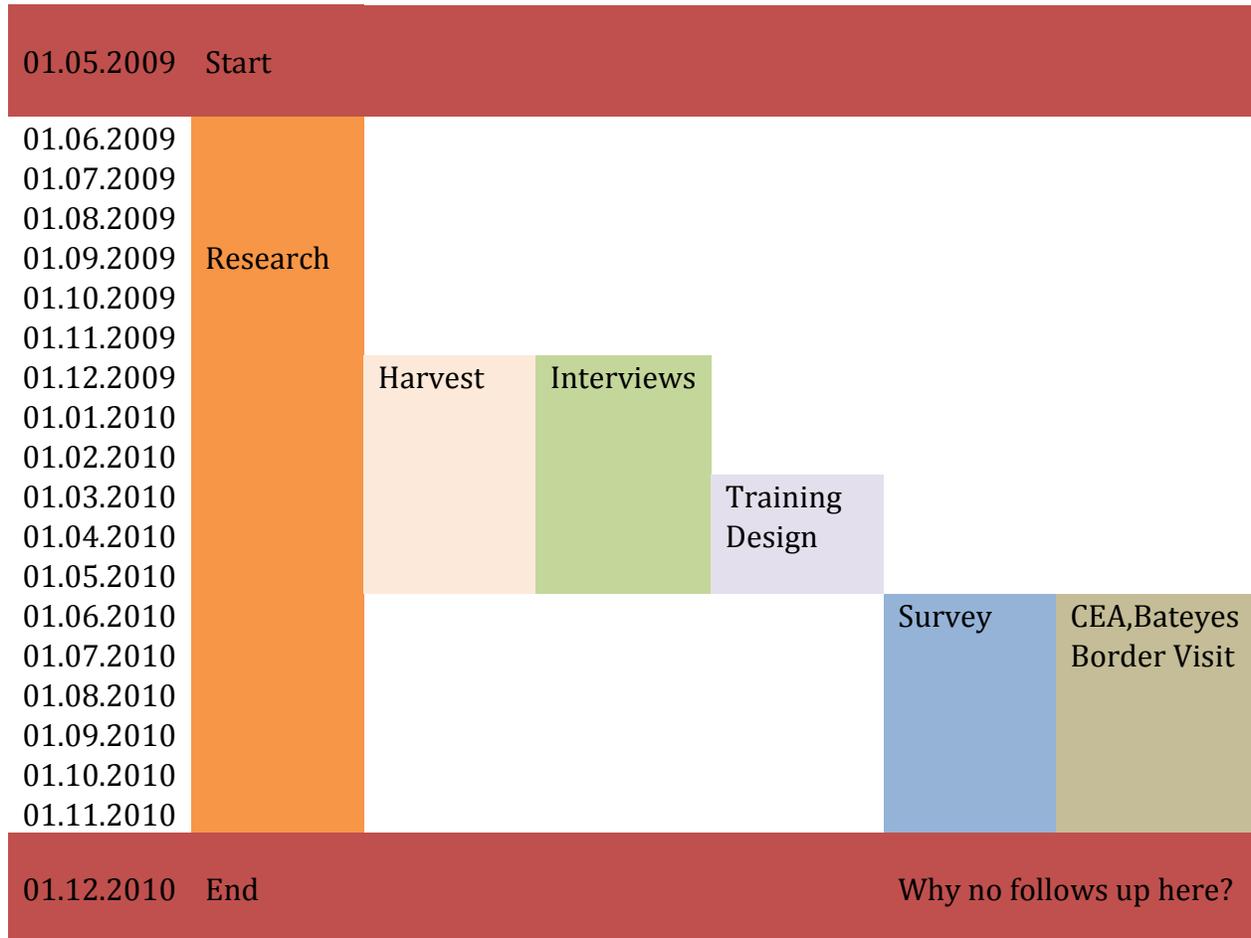
year	Social indicator			
	GDP/capita (U.S. dollars)	Literacy rate	Poverty rate (\$2/day)	Improved water supply – percent of rural population with access
1991	1,324.9	75.1 (1981)	27.2 (1989)	76
2001	2,852.9	87.0	11.0 (2000)	81
2011	5,530.1	89.5	9.9 (2010)	84 (2010)
Source: World Bank Indicators				

They show factors illustrating a higher standard of living -- higher GDP/capita, literacy, water quality and less poverty. That is, there appears to be evidence-based congruent patterns here – economic development in the DR, a shift from agriculture to services, and recent elimination of forced labor in the sugar industry. This dovetails with a recent 2013 ILO report on Growth, Employment and Social Cohesion in the Dominican Republic, which includes a section on “Key areas for policy action.” The report documents the 20-year sustained economic growth, averaging 4 percent per year, but noting that not everyone has shared in the improved living standards. The list of policy recommendations include linking minimum wage increases to productivity growth, and further developing collective bargaining and social protection. The ILO did not single out forced labor as an issue that needed to be addressed.

2.2 Expert and In-Depth Interviews

The Verité report documents their methodology of using expert interviews, focus groups, and a worker survey, in a chronological fashion in the Appendix), to examine forced labor in the DR sugar industry. (See table 7.) At this point it is worth mentioning that the research has been implemented by The Research Center for

Table 7: Chronological Project Implementation Plan



Source: own illustration based on Verité, 2011

Feminist Action (CIPAF, a Dominican Republic-based non-governmental organization (NGO) that specializes in research, education and public policy advocacy related to issues of gender and equality, including labor issues. From a referee perspective this might be regarded as problematic for at least two reasons.

First, interview partners might have been selected in a targeted fashion and thus the results of these interviews might represent rather an extreme advocacy position rather than reflect an objective view. In this context, the authors of the report state that “the research team identified the main human rights organizations (especially those that have experience in labor rights), as well as unions that worked on bateyes associated with the sugar industry in order to obtain their opinions and to gather information about current reports of labor exploitation” (Verité, 25).

Second, it is unclear whether representatives of the sugar industry and/or economic ministries and other relevant domestic stakeholders have also been interviewed. We find it also especially worrisome that only interview excerpts of workers have been included in the report, but not one single excerpt of an interview of a government representative and/or the sugar industry (employer). However, we are convinced that this would be needed if the report aimed at providing a balanced view on forced labor in the Sugar Cane industry in the DR.

After a preparation of field research, a 'rapid appraisal phase' was launched. This phase consisted of intensive interviews with small groups of workers to gain a basic understanding of the major issues in a short period of time.

As the report indicates the "groups ranged in size from 2 to 15 workers and were held after work and lasted from 30 to 90 minutes. In all cases, interviews of recently-arrived workers were prioritized due to their increased vulnerability to forced labor..." (Verité, 25).

As the report is written in rather confusing way, we have reconstructed the way of proceeding during this phase. The text is assembled from pp. 25-26 of their report:

"For this phase of the review, 42 bateyes were visited, with researchers making an attempt to gather a diverse pool of workers. Throughout this phase, the research team visited 12 bateyes from Central Romana, 11 from CAEI, nine from CAC, seven from CEA, and three colonatos. In selecting the bateyes, the researchers ensured that they sampled all types of employers, and at least two bateyes that were geographically remote among each type of employer. Central Romana bateyes were sampled more heavily, due to their larger scale of production and in order to ensure that a number of different areas were visited. Regarding CAEI, a larger number of bateyes in San Cristobal were sampled, because many indicators of labor rights incompliance were detected during the preparatory phase. In the case of CAC, surveys were carried out in all of the bateyes to avoid gathering a sample size so small that it was irrelevant. In addition to the worker interviews, three unstructured interviews were carried out with supervisors or ex-supervisors from the CAC, CAEI and CEA" (Verité, 25/26).

This way of proceeding can be regarded as somewhat problematic. First, some of the *bateyes* were selected according "to key informants' report on labor violations" (Verité, 25). At this point the report does not state, which and how many (and/or the share) of these bateyes were selected according to this method. Second, in all *bateyes* the workers were selected for interviewing by convenience sampling. This is a non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher. This is an important aspect because convenience sampling might lead to substantial statistical bias, i.e. this means that potentially only frustrated workers have participated in these interviews. Third a transcript of the interviews with supervisors and ex-supervisors cannot be found in the report. Also the central outcomes of the interviews have not

been reported. However, without this reference a rather one-sided, biased picture emerges.

In addition to these references to their research, the authors state:

“During the off season, the research team also visited and conducted interviews in public and private bateyes of the CEA and in the colonato. Lastly, this phase included a trip to the border region, especially Puerto Escondido (Independencia Province, Duvergé Municipality) and the border posts of Jimaní and Dajabón, in order to obtain information from organizations that work on the borders on the mechanisms utilized by workers to migrate to the Dominican Republic” (Verité , 26).

A clear reference on the outcomes of the interviews cannot be found in the entire report. Furthermore few workers who reported indicators of forced labor (not identified) were selected for in-depth interviews; **nine such interviews were conducted**. We believe that these workers are listed in table 3 in the report on page 27, although there is no clear statement in the report whether these are the selected workers. In this respect, we find it astounding that also an 83 year old worker(?) has been listed. In any case, we believe that it is highly problematic that transcripts and/or excerpts of these interviews are not included in the report and/or have been made accessible for our review. It seems to be puzzling why these or at least excerpts of these interviews ‘potentially’ documenting the prevalence of forced labor have not been included in the report, although several, selective interview excerpts can be found. To the extent that interview questionnaires and guidelines were used in this research phase, none of these are a part of the final report.

Overall, the section on interviews and the qualitative research is not well developed and actually raises more questions than it answers. For instance, it is unclear, in which *bateyes* the nine in depth interviews have been conducted (does not hold if table 3 on page 27 is the correct table) and at what stage of the project these workers have been identified. Furthermore transcripts, interview guidelines and/or at least excerpts of the most important interviews would be required to achieve somewhat robust qualitative empirical results. However, without this information this section loses substantial credibility.

2.3 Focus Groups

It is quite common in qualitative research to interview focus groups to fill in information gaps that have not been covered otherwise. For the research of the underlying report, focus group interviews were used to complement the worker’s survey. The report states that “the research team conducted five focus group discussions (one for each employer type), with between ten and 15 workers in each group. Each focus group discussion lasted from 2 to 2 ½ hours. “Focus groups were used as a tool for validating/confirming critical findings and exploring issues that were not sufficiently understood through other research means” (Verité , 27).

The focus groups were assembled through convenience and purposive sampling. Purposive sampling is when the researcher chooses the sample based on who they think would be appropriate for the study. This is used primarily when there are a limited number of people that have expertise in the area being researched. From a statistical perspective this can be regarded as highly problematic as only workers, who are dissatisfied and/or willing to participate are recorded in the interviews, i.e. the researcher gets a biased view.

Taking a closer look at the semi-structured, flexible interview guide, we cannot identify one single question regarding working conditions and/or one of the outlined ILO conditions for forced labor. In fact, a question is included on the retention of documents:

Original Question

“Verificar si a ellos o a algunos de sus compañeros les han retenido algún documento de identificación personal” (Verité , 121).

Translated Version

“Verify if their personal identification documents, or those of their peers, have been retained.”

We believe that this question is not precise and adequate to address the question concerning the retention of documents and/or introduce this question into a focus group discussion. Furthermore, we are bit puzzled why this question is posited in a focus group discussion, although it already entailed in the survey questionnaire. Overall, a substantial weight of the argument appears to stem from these focus group interviews. We believe that these group interviews are representing not only outliers and the question(s) are not capturing the relevant aspects of forced labor. Including these two aspects would have been required to back-up empirical findings. However, in order to assess the overall content and quality of these discussions, we would require taking a look at the interview transcripts and protocols.

2.4 Survey

From a research credibility standpoint, the worker survey is the key ingredient. It allows the workers themselves to answer questions related to their work situation. This survey was “based on the results of the literature review and expert consultations” (Verité, 24). In our attempt to assess the empirical findings of the survey, we apply a Total Survey Error Framework (Bautista, 2012) that builds on identifying sample and non-sample biases of the survey analysis. The separation of these two sources of survey biases is important as separate sources of statistical bias can further weaken the robustness of the empirical findings. After a brief discussion of both types of error, a detailed discussion will follow.

Sampling error and bias exists and/or is likely to exist if a random sampling pattern is not employed; people’s responses in the sample will reflect mainly their views/characteristics and not the views/characteristics of the entire population. For example, if a population has 50 percent men and 50 percent women and your sample contains 70 percent men and 30 percent women, your results really reflect mainly men’s views. Thus, your results are biased towards men.

The bottom line is that the further to you get away from randomly picking people, the less likely the results of your survey reflect the view of the population and/or are representative in a statistical sense. For example, if you want to know the views of workers in the sugar industry, but your sample is not random, and, for example, over samples new migrants, or misses workers away from their village, the results will not reflect the general view of workers in the industry, but reflect the situation of the selected sub-group.

Although an existing sampling bias might reduce the robustness of empirical findings of the Verité report, the workers that have been identified as ‘forced laborers’ still exist, even if these are not statistically representative for the sugar industry. In order to evaluate further the report and check the robustness of this finding in the report, we therefore also include categories capturing forms of non-sampling error.

Non-sampling error or bias can stem from several sources such as faulty and/or misleading survey questions, the appearance of the interviewer and coding errors. For instance, the question whether workers have been threatened can have formulated misleadingly and/or the response has not been transferred/coded correctly into a database after the data has been collected. Although we do not have access to the original data, we identify several sources of non-sampling error that additionally weaken the reliability and credibility of the survey findings.

2.4.1 Sampling Error

A general rule of thumb is that the process of sampling should ideally follow a random process, i.e. the target population should have a known, non-zero probability of being selected. In practical terms, a recommended sampling technique to fit the perceived situation in the sugar cane industry in the DR is a multi-level analysis through stratification and over-sampling. This way the population is divided into groups called “strata” and an independent sample is selected in each

strata. If a particular strata is suspected of having concentrations of forced labor, it can be over-sampled.

The approach of Verité builds on a multi-level (stage) analysis, whereby the report concentrates solely on sugar cane workers which form the survey frame (Level 2), the employer forms Level 3, bateyes Level 4 and individual households/individuals constitute Level 5 (see Table 3).

Table 3: Overview of Analysis Levels

No.	Level of Analysis	Selection Mode
1	Country	Targeted selection
2	Industry	Stratification
3	Employer	Stratification
4	Bateyes	Not reported, Clustered
5	Individuals/ Workers	Convenience Sampling

Source: own illustration based on Verité, 2011.

In order to assess the robustness of findings from the survey, we assess the selection process along each dimension of analysis separately and highlight shortcomings and corresponding statistical implications.

Level 1 – Selection of Country

Verité has selected the DR as one out of seven countries (Bangladesh, Brazil, Bolivia, Guatemala, Indonesia, Liberia, and the Philippines) for analyzing the presence of indicators of forced labor. The authors do not make any explicit reference why the DR has been chosen as a target country among the other countries. We believe that this ‘biased’ selection has been driven by ample anecdotal evidence of forced labor in the Dominican Republic (Verité , 11/12).

Level 2 – Selection of Industry

Verité's focuses only on a single strata, i.e. the sugar cane industry and thus ignores other parts of the country and other economic sectors, without making any explicit justification for the selection of the industry. This can be regarded as problematic given that the current literature and several policy reports indicate that forced labor in the DR is most prevalent in the construction and tourist-related industries (see, for instance, U.S. Embassy Santo Domingo, 2011 U.S. Embassy Santo Domingo, 2011)). Additionally, the findings of an ILO report indicate that Haitian workers concentrate in construction and in "other services" besides agriculture (ILO, 2013:8). It should be noted that the largest share of Haitian migrant workers is to be found in the construction sector, share is 42.6%, followed by agriculture, share is 26.5%, and then sugar industry, 17.5% (see table 1, p.11). In addition, a recent report of the ILO indicates that the informal sector is gaining importance for employing migrants of Haitian origin/descent. For these reasons, we believe that Verité's sample could be misleading in over-estimating the prevalence of forced labor.

Level 3 – Selection of Employers

In order to survey workers, a comprehensive and up-to-date record of public and private *bateyes* in the country and the number of sugarcane harvesters was necessary, but was not available. Against this background a sample frame was established through a triangulation of desk and field research and expert consultations. According to the report, this included developing a territorial matrix to identify the location of *bateyes* in which sugar was still being produced. They also used reports and documents from sugar companies that made reference to the number of *bateyes* linked to sugar production, as well as other qualitative research techniques carried out during the preparatory and rapid appraisal stages (Verité ,28).

In addition, researchers went into the field to confirm that each *batey* still existed and was actively involved in sugar production for the 2009/10 harvest. This process resulted in the identification of 178 'active' *bateyes* housing workers involved in sugar production during the 2009-10 harvest. In interviewing medical staff, workers, and other individuals, the research team arrived at a range of 14,325 to 17,850 sugarcane workers living and working on these 178 *bateyes*.

The author(s) of the Verité report argue that "since there may have been some *bateyes* that were not identified through this process, a random sample was not possible. The researchers conducted the survey on 52 *bateyes*" (Verité, 27). At the very same time, they group these '*bateyes*' according to employer type instead of randomly selecting a representative sample from the 178 '*bateyes*'. We believe that separating workers across employers might lead to a substantial increase in the sampling error, because this way of proceeding heavily relies on the assumption that similar working conditions might be prevalent with one and the same employer (see, for a similar line of argument Heeringa et al., 2013). Aggregating the data in the analysis phase, this way of proceeding, potentially leads to an over-estimation of 'bad' working conditions for the entire sample.

Level 4 – Selection of Bateyes

The author(s) of the Verité report argue that “since there may have been some *bateyes* that were not identified through this process, a random sample was not possible” (Verité, 27). Proceeding with a selection of *bateyes* according to employer type, it’s not clear how *bateyes* (especially if their regional concentration/distribution is unknown) have been selected. In this respect, the authors argue that “*bateyes* from each employer type were then randomly selected proportional to the number of workers employed in each *batey*” (Verité, 30). We expect this way of proceeding to potentially drive up the survey error, as workers are clustered into *bateyes* and working conditions might differ across these substantially, although they are owned by one and the same employer. Furthermore there is no information on the mode of randomization in the selection process. This would have been an interesting piece of information and would be required to assess the precise extent of statistical bias. From a referee perspective, a clarification would be required in order to ensure that *bateyes* did not accidentally lie in the same area/region, i.e. if plantations are regionally clustered/concentrated, regional characteristics might drive the empirical results. In this regard, we could not detect any information of the regional distribution of selected *bateyes*.

Level 5 – Selection of Workers

The selection of workers follows convenience sampling. Convenience sampling is a form of non-probability sampling that can include snowball sampling and respondent-driven sampling, where by existing study subjects recruit future subjects from among their acquaintances. This way of proceeding/ selection of workers through a “flat rate of ten workers” and in a non-random fashion can be regarded as critical, i.e. over-sampling of potential statistical outliers. Although this approach is understandable given the fact that “the full population of workers was never present in one place at the same time, since some workers are sent to distant plantations for longer work days, and workers depart for and return from work at different times” (Verité, 30), we do not understand why not another method and/or more precise method(s) or randomization were not at least tried given that the survey was carried after the harvesting season. We also find it worrisome that “researchers were instructed to ensure that newly-arrived workers were included in the sample for each *batey*, as these workers were deemed to be more vulnerable to exploitation” (p.30). This clearly violates any best practice of survey data collection, as this group might be over-represented in the sample. This is worrisome to the extent that the report states many new arrivals into the industry perceive the working conditions as particularly oppressive. In fact, the selected interviews/case studies in the report underline this aspect. For instance, in case study on page 43, the interview of a 36 year old teacher from Haiti after returning from his first day of work. The report states that ‘this was his first time working in the field. “It’s hard”, he lamented [...]and the worker stated that he could not do this type of work”(Verité, 43). We believe that this statement reflects a common pattern among interviewed new arrivals and these perceptions might add substantially to an upward bias in the empirical results, i.e. overestimation of ‘bad’ working conditions.

Assessment

Although the researchers claim of having implemented a simplified stratification method, concentrating on Haitian migrant workers, a substantial sampling bias might be found in the current analysis due to the fact that the selection of interviewed sugar cane workers has been implemented through convenience sampling. In this respect, the applied stratification (Level 2) and clustering (Level 4) method in the sample selection process are most likely not cancelling out, and can hardly be estimated. Even ignoring these factors in the analysis and assuming a 'pure' and statistically sound estimation, we believe that there is still a margin of error, which should have been incorporated into the analysis section of the survey. In this respect, we find it worrisome that power calculations, margin of error calculations, and other forms of preliminary numerical tests before the implementation of the survey have not been reported.

Below we calculated the sample error for a random selection of 740 workers out of a total population of 17850 workers for a 95% (standard) confidence interval. In order to capture varying levels of sample error, we assumed varying proportions of workers to answer a certain way on the key measure (forced labor) in the survey (table 4).

Table 4 Sample Error Calculations

% of Respondents	Sample Error, in %
1	0.7
5	1.5
10	2.1

Source: own calculations based DSS Research Method.

What this means is -- if Verité had reported a specific number of forced laborers, which they did not -- the number would range from plus or minus 0.7 percent around it. For example, if 7 workers were deemed forced laborers from the survey, the number is really in the range 2 to 12. Of course, this is only due to sampling error and, as noted, the actual error is substantially higher due to the factors that we cannot estimate. Especially the convenience sampling on Level 5 of the analysis proves to be the most critical source of statistical bias. For this reason, the sample bias will most likely be substantially higher, i.e. there might be no forced labor at all.

One way of dealing with the issue, would have been to introduce weighing measures to correct for these sources of bias (see, for a formal representation Heeringa et al. 2013). This has not been done, and we believe that this choice is highly problematic as the researchers present only and/or make only un-weighted results available and report these (see, Appendix 9). However, leaving out a 'sound' weighing of the survey variables, leads to an upward bias in the statistical results, i.e. over-reporting of the prevalence of forced labor in the report. In this respect, it appears highly problematic that we do not have physical access to the dataset, which would allow us to correct for these types of biases and report robust descriptive statistics, i.e. statistics where certain types of bias are removed from the sample.

Baseline Sampling Error

Overall, we are convinced that the reported results are subject to substantial sampling bias leading to an overly pessimistic view of working conditions and forced labor in the sugar cane industry.

2.4.2 Non-response Error

Another source of bias might emerge from the fact that a subgroup of the population has not responded to one and/or a whole set of questions. The response rate in the survey is 99% and/or how the researchers state "the response rate was nearly 100 percent" (Verité, 30).

This response rate appears to be an extremely/unusually high number of respondents to the questionnaire. We believe it is rather unlikely that out of 100 potential workers 99 would agree on an interview/fill-out a questionnaire. A 100 percent response rate is a red flag as it is highly unusual that everyone approached to answer a survey agrees. Two factors could be present here:

- did not report nonresponses and just kept asking different people until they reached their desired number of responses. If so, this would call into question the randomness of the sample; and
- respondents felt some pressure not to refuse to answer the survey questions. This would call into question the accuracy of their responses/answers.

Nevertheless in several instances (see, for instance, question(s), could read and write (n=630) (p.142), type of employment in Haiti (n=579) (p.142), where live in DR after harvest (n=567) (Verité, p.143)), the non-response rate appears to be higher. Unfortunately these non-responses and the consequences thereof are not discussed in the report. It is possible that these aspects have been left out in order to hide the true nature and shortcomings of the dataset. In order to illustrate what this non-response error does is demonstrated below:

For instance, according to the report, most workers have been residing in the DR for more than 2 years. Only 29 (~5.7%) workers report to have been living in the DR for less than 2 years, whereby 146 people (~20%) report 2 – 5 years, 84 (~11%) report 5 – 9 years and 249 (~34%) workers report to have been living in the DR for 10 or more years. Although this demographic composition seems to be reasonable, summing up the number of respondents indicates that only 508 workers have responded to this question (i.e. non-response rate is 31.3%). Calculating the percentages of ‘new residents’ in the DR, it appears that the survey captures 3.91% of this sub-population, so that the reported 5.7% slightly over-estimate the new arrivals in the population.

From this observation, as this case is not an exception, we believe that certain findings have been reported incorrectly.

However, without the actual dataset at hand, we are not able to answer the question, whether the respondents to certain questions of the survey are systematically different from those who did not respond. This additional information would be needed to assess the underlying cause(s) for workers not responding to certain questions and quantify the non-response bias in the data set, which we believe might also reveal additional information on the overall statistical quality of the survey findings.

In summary, item non-response rates are extremely high for several questions, which lead to a varying number of observations for particular questions.

2.4.3 Coverage Error

It occurs when individuals in the population of interest are missing from the sampling frame used to draw a representative sample, and is likely to increase the survey bias. At this stage underlying assumptions about the true size of immigrant workers into the DR sugar cane industry is not known, but has been estimated based on interviews with various stakeholders. However, we do not know exactly how the estimate was derived. Thus, it is impossible to speak to its accuracy. Since it is an estimate and we do not know the true value, it is very likely to add an upward bias to the survey, i.e. too pessimistic view of working conditions of migrant workers in the DR.

In addition, sugar cane workers, who are domestic residents and citizens of the Dominican Republic, seem to have been left out of the sample. Although these might represent only a small share of workers, the survey did not take these workers into account. For instance, the UN human rights organizations claim an extensive prevalence of racial discrimination and xenophobia, especially concerning migrants of Haitian descent. In this respect the question arises why the report does not differentiate between migrants of Haitian descent and nationals of the Dominican Republic in order to isolate potential sources of discrimination. In order to enhance

the robustness of the empirical findings (i.e. generalizability of findings), this would have been needed. Leaving out this group out of the survey sample might be an important driving force behind additional sampling bias, reducing the empirical validity of research findings.

Moreover, the report clearly states that the interviews were conducted during 3pm and 4pm every day with returning workers, and earlier in the day with workers who did not go into the fields during this day. However, this leaves out workers that have been working in the fields later 4pm. This fact can be regarded as problematic as most likely cases of sugar cane cutter working excessive hours of work could not be interviewed by the survey team.

Furthermore, the timing of the research project shows that the actual survey was implemented after the harvesting season between June and August 2010. The statistical findings in Appendix 9 of the report indicate that only a fraction of 67% (~496) of the workers remains on the *bateye* and 10% (~71) stayed in another province in the DR (Verité, 143). Taking together, it appears that 23% (~173) workers have not responded to this question. However, far more important it appears to be problematic that the survey has been implemented not during the harvest season, as a large portion of workers have already left the plantations and/or moved to other sectors in the DR and/or returned to Haiti. We believe that this way of implementing the survey produces an additional selection bias (i.e. sampling error) in the analysis, as these workers are not covered by the survey.

2.4.4 Specification Errors and Processing Error

Specification Errors

An interesting aspect to mention is the question of how to construct a viable empirical measure of forced labor. ILO's operational definition of forced labor (adults) has two criteria – must enter into work involuntarily and coerced into staying. Most DR sugar cane workers entered their sugar cane industry jobs voluntarily and evidence on coercion is sketchy. That is, most do not meet the ILO definition of forced labor.

The ILO definition forced labor is:

“work for which a person has not offered him or herself voluntarily and which is performed under the menace of any penalty applied by an employer or a third party to the worker. The coercion may take place during the worker's recruitment process to force him or her to accept a job or, once the person is working, to force him/her to do tasks which were not part of what was agreed to at the time of recruitment or to prevent him/her from leaving the job.” (ILO, 2011)

The authors of the Verité report claim that there is forced labor in the DR as workers are PREVENTED from leaving their job by withholding their official travel documents. Most of sugar cane workers are from neighboring Haiti and, theoretically speaking, they have/need travel papers to go back and forth.

The survey questions must attempt to cover the factors in this definition, namely sufficient information to allow assessment of whether or not the individual has been subject to involuntariness and coercion in his/her working situation. Does the survey used in the Verité report do this?

A key problem appears to be how the report applied the ILO template for uncovering forced labor. There is no clear connection between theoretical concepts and survey variables (called specification error). This leads to weak conclusions as the resulting data do not reflect specific social constructs. Constructs are the specific qualities of what one is trying to measure because it is not really measurable (e.g. forced labor). Ideally each survey variable should be related to a concept (like menacing or involuntariness of work), and each concept to a hypothesis, which in turn is related to theory or a body of evidence. For example, is it warranted to conclude from the one percent affirmative answers on the menace of penalty physical violence that such an indicator exists in the sector? The following analysis in matrix form shows the 8 observations (one percent) in the survey reporting – “Showed signs of fear, anxiety or intimidation” -- are tenuous because the questions upon which this is based are unclear, incomplete and/or missing important criteria, per the ILO template.

In order to show the report’s weaknesses of these connections, we adjust the questions and responses of the survey to fit the outlined criteria in the ILO guidelines. Our results are presented in Table 5 below.

Table 5: Detailed Assessment of Specification Errors

	Criterion	Corresponding Survey Question(s)	Number of Respondents (Yes)	Comments
Involuntariness	Penalty	<p>Penalized for missing work (with being removed from batey)?</p> <p>Penalized for missing jobs (with being removed from batey)?</p>	<p>20 (~3%)</p> <p>25 (~3%)</p>	<p>These question(s) measuring ‘penalty’ do not make any sense as they relate to prior events and/or capture expected outcomes. The workers could not have responded to this question if they were removed during their current contract, so that these are likely expected consequences of missing work instead of actual events. The question is whether this perception is justified and/or whether these expectations/perceptions are formed on actual events. Furthermore, the reason(s) for missing work/jobs are not indicated anywhere in the report and/or in the data. This would be important to know in order to be able to classify the appropriateness of these ‘penalties’. . In addition, the report states that ‘nine CAC workers interviewed reported that if they complained about their working conditions, their ‘code’ would be erased’ (Verité, 64). Nevertheless, it appears to be that these cases are concentrated in certain bateys and do not reflect common patterns across the entire industry. If these findings were statistically valid and robust, it appears to be contradicting why the ‘the researchers did not find evidence of the removal of rights or privileges being used against workers as a threat or in practice in the Dominican sugar sector’ (Verité, 64).</p>
	Unfree	None	-	Although the report indicates that 351 (~47%) workers have been

	Recruitment			<p>brought to the <i>bateys</i> by a Buscon, we could not detect one single question that would directly address the involuntary nature of recruitment and/or practices common in the context of human trafficking practices. However, an additional strong argument against an involuntary recruitment might be found in the fact that 502 workers have reported an employment history in agriculture in Haiti (~74%). Nevertheless the non-response rate to this question is relatively high (79, ~15%), which might be either due to an imprecision in the survey question and/or under reporting. Furthermore the report states that ‘The researchers did not find evidence of indicators of workers being abducted or kidnapped for the purposes of forced labor in the Dominican sugar sector’ (Verité, 45).</p>
	False Promises <i>(Question added to the ILO’s method.)</i>	None	-	<p>The survey does not have one single question addressing this question directly. Although the report has a section labeled ‘Deception about false promises about types and terms of work’, none of these questions (Verité, 145), besides question 1 of why worker went to specific batey (none of the respondents has been forced!), addresses this above mentioned issue. For instance, it is unclear why deductions for social security, housing, meals, etc. should play a role if these have been anticipated by the worker.</p> <p>Survey instruments being used, such as questions regarding the mode of entry into the Dominican Republic and questions asking whether the worker knew to which batey they were brought can be regarded as imprecise to capture this variable. Furthermore the report states that ‘worker interviews indicate that workers are not deceived about the type of work that they will be carrying out, as they are told that they</p>

				<p>will be working in sugarcane and the researchers did not detect cases in which workers were deceived into thinking that they would be obtaining other types of employment' (Verité, 59). We take these as strong indication that false promises were not made during the time of recruitment, which is a substantive pre-condition for forced labor practices (ILO, 2011).</p> <p>In fact, the selected interviews/case studies in the report. For instance, in case study on page 43, the interview of a 36 year old teacher from Haiti after returning from his first day of work. The report states that 'this was his first time working in the field. "It's hard", he lamented [...]and the worker stated that he could not do this type of work"(Verité, 43). We believe that this statement reflects a common pattern among interviewed workers and reflects rather false expectations concerning the job rather than false promises. This is also supported by the following statement in the report that "They reported that they had come by viaje, for which they had paid DOP 3,500 (USD 96) to a buscón who had offered them work in the cane fields ("Koup travayer kann")' (Verité, 49). We take this statement and above pieces of anecdotal evidence as a strong indication for the missing of false promises condition during the recruitment process.</p>
	Work and Life under Duress			<p>In order to answer this question a comparable case on living conditions in the Dominican agricultural sector and/or in the agricultural sector in Haiti would be required. Although several questions are trying to address this question in the survey, i.e. access to potable water (~297, (40%)), access to sanitary services (~364, (49%)), and access to electricity (92 (~12%)), it is not clear whether these are typical for</p>

				rural settlements in the Dominican Republic and thus reflect an extremely vulnerable livelihood and/or circumstances of life under duress.
	Impossibility of Leaving	Could not leave because supervisor violent/threatening?	7 (~0.94%)	The report refers to 'some CEA workers brought into the Dominican Republic through the "quota system" were reportedly constantly watched by guards and not allowed to leave the bateyes, at least during the first few weeks of the harvest' (Verité, 140). On a page 139, the report states that 'workers reported that workers who were recruited under the "quota system" were less free to leave than other workers' (Verité, 139). We interpret these two quotes in the following way. It appears to be that workers observing/witnessing special working conditions for other workers report an incidence and/or occurrence, which appears to be used in the descriptive statistics section of the report again and counted as an actual incidence.

Menace	Threats/ Violence	Showed signs of fear, anxiety, or intimidation?	8 (~1%)	<p>There are a couple of issues with this question. First, it is not clear whether this is a respondent's answer to the question and/or whether this is an assessment of the researchers on the mental conditions of the respondent. The report does not make any clear reference how to interpret this question, although it seems to be central to the line of argument made in the paper. Second, if we assume that a Yes/No is a respondent's answer to the question, it is unclear what this question actually implies/means as it is not related to the current working conditions and does not appear to be related to the employer/supervisor. Fear, anxiety, or intimidation could be also triggered by other factors, e.g. mental health condition of respondent, traumatic experiences during their time in Haiti (e.g. Amnesty International 2013), personal perception of overall situation in the household and/or in the Dominican Republic. For instance, a recent Amnesty International Report's findings indicate the prevalence of arbitrating arrests, torture and killings by the police (Amnesty International, 2012). Given the overall level of hostility towards Haitian migrants in the DR, it seems to be reasonable that these migrants are particularly vulnerable to random police violence and forceful deportation (see, for instance Alatorre, 2013). Although additional questions filtering out these cross-cutting effects would be required, the report/survey does not have any supporting/validating questions. Third, even if these factors could be eliminated as a source of statistical bias, there is no indication on the severity/intensity of these perceptions as the questionnaire does not include any intensity measure. For these reasons, it is unclear to what extent this question delivers any statistically 'robust' and objective results, as fear, anxiety, or intimidation could be driven by unrelated other factors.</p>
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	Restrictions	Could not leave because supervisor violent/threatening?	7 (~0.94%)	See related question in section 1 of the table, Impossibility of Leaving.
	Debt bondage	Cost of last trip to workplace in DR? How paid for last trip to DR? Borrowed money for trip?		<p>The reported numbers in the document suggest that the trip to work is excessively expensive, so that migrants had to borrow money in order to finance these trips and thus have been forced into debt bondage. There are several reasons, why these results do not necessarily reflect an induced indebtedness.</p> <p>First, the findings of the survey indicate that only 77 (~10%) workers borrowed money to finance their trip to the work place, whereby 31 (~4%) relied on a money lender and 46 (~6%) relied on a family member. It appears that workers borrowing from money lenders have already repaid their loans (31, ~4%), whereby workers relying on family members still owe money (46, ~6%), indicating some form of soft budget constraints for family loans that has been well known from similar contexts. This indicates that workers did not borrow from their employer, which would be a natural candidate of induced indebtedness in the context of forced labor.</p> <p>Second, it appears to be that 111 (~15%) respondents paid DOP 1000 or less and 59 (~8%) paid DOP 5000 or more for their trip. It should be noted that is unclear in which year these payments have been made.</p>

				<p>This might be important to know as inflationary dynamics and market conditions might drive price changes substantially over time. In a worst case scenario, assuming that a worker paid DOP 5000 and earns DOL 500 per week, the cost of travel equals the earnings of 10 weeks (subtracting food, we expect that this money could be repaid during one season). Nevertheless, this represents an extremely unlikely case. The reason for this is that only 170 (~20%) workers in the survey entered the DR in the time span 2009/2010 in which year a higher price might be justified, 87 (~11%) workers earn less than DOP 500 per week and 59 (~8%) have paid DOP 5000 or more for their last trip. It should be noted that 'Many workers who came by viaje, as well as workers who were recruited and brought to work in CEA bateyes in 2010 did not have to pay for the trip' (Verité, 54), which reduces the number of potential candidates substantially. Taking together these results, and assuming an independent statistical distribution of events, the likelihood of a worst case scenario outlined above is 0.001% or a maximum of less than 1 worker in the surveyed population. Furthermore, it is unclear whether such a relationship exists at all and whether the higher travel expenses do not rather reflect higher paying jobs for the workers.</p> <p>Third, the survey does not reveal any information on the precise source of credit, the composition of travel expenses, and/or any further indication of which income group has paid the relatively higher travel expenses, in which year. Due to the missing data we cannot reconstruct the true relationship between travel expenses, workers' earnings, and a potential induced indebtedness. Nevertheless, the report confirms our presumption that 'researchers did not find that workers owed money for smuggling fees to either the buscón or their employer' (Verité, 55).</p>
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				<p>For these reasons and given the imprecision in the survey question(s)/instrument(s), we do not believe that there exists a causal relationship between travel expenses and induced indebtedness, indicating the presence of forced labor.</p>
		Weekly and biweekly income?	647 (~87%)	<p>The researchers are able to quantify worker's earnings on a weekly basis and argue that these reflect 'subminimum wages'. According to a recent IMF report on the Dominican labor market the wage/pay scale seems to be low in comparison with the average weekly earnings in the private sector (i.e. DOP 58 per hour) (IMF, 2013). As wages are also related to the weighing system of sugar cane, the report's results indicate that "162 (22 percent) [workers] reported that they thought that the cane was not being weighed properly and 102 (14 percent) reported that they were not satisfied with this system" (Verité, 57). Upon further inquiry, approximately one-third of the workers who reported they were not satisfied with the payment system reported that it was because their employers did not always weigh the cane accurately and ten percent reported that they were deceived or cheated in the weighing of the cane' (Verité, 57).). Furthermore, it appears that wages were not withheld deliberately from workers in most cases.</p> <p>It seems to be common in the <i>bateyes</i> that workers buy food on credit and pay the shops when they are getting paid (i.e. see interview excerpt, p. 52). The researchers also admit that the quantitative findings concerning this indebtedness are not statistically robust, i.e. there is no precise survey question/instrument capturing the size, conditions of repayment (i.e. interest rate) and outstanding debt to food stores. Furthermore there is no evidence of any business</p>
		Satisfied with weighing system?	93 (~13%)	
		Paid on time almost all the time?	699 (~94%)	
		Bought food on credit at least part of the time?	332 (45%)	

				<p>relationship between employers and the food stores. Additionally, the question asking workers through which mode they are staying in contact with their families in Haiti has not been evaluated in the report (P607/p.133). It would be interesting to know how much a representative worker spends on communication as this might represent a source of potential indebtedness that is not even mentioned, although 651 (~88%) of all workers were saying that they were still in contact with their families.</p> <p>Although it might be well reasonable to assume that ‘workers earn extremely low wages for the amount of cane that they harvest’ and this might be a source of induced indebtedness, we believe that wages are not exploitative. The reason is that information on the exact reimbursement per ton, bonuses, and additional sources of income have not estimated nor have the travel expenses, expenses for food and communication been estimated by the researchers in the entire report. However the report concludes that ‘focus group interviews indicated that the majority of workers who were indebted were able to pay their debts each pay period or by the end of the harvest and workers did not report explicit penalties for failing to pay back the loans’ (Verité, 56) and that approximately 377 (~51%) workers send remittances to Haiti. We take these pieces of evidence as a strong argument against the prevalence and/or existence of induced indebtedness as a means/instrument of forced labor.</p>
	Retention of wages	Weekly and biweekly income?	647 (~87%) weekly 93 (~13%)	The researchers are able to quantify worker’s earnings on a weekly basis and argue that these reflect ‘subminimum wages’. According to a recent IMF report on the Dominican labor market the wage/pay scale seems to be low in comparison with the average weekly earnings in the

		<p>How paid?</p>	<p>bi-weekly 703 (~85%) piece rate</p> <p>30 (~4%) daily rate</p>	<p>private sector (i.e. DOP 58 per hour) (IMF, 2013). It appears that wages were not paid on a daily basis, but on a production/output basis, i.e. harvested sugar cane in ton per worker. Although a large share of workers (102(~14%)) reported that they were not satisfied with this payment system, most likely because many of the respondents were convinced that the cane was not weighed properly (162(~22%)) and of the perceived hardship of work. From a statistical perspective, this question poses an interesting puzzle. On the one hand, 733 workers have responded to this question, whereby the authors of the report claim that the overall response rate has been 99% (~733). However, the question of whether respondents are getting paid on time is answered by 740 workers (~100%). Furthermore, the report states that workers also got an additional 'end-of-season' bonus, and vouchers for the purchase of food (Verité, 69). Although one would require this detailed information for estimating the daily/weekly income, these numbers have not been reported. However, without any information on bonus payments and food vouchers, it is hard to calculate a daily/weekly rate that reflects total income and thus we expect the reported numbers to be downward biased, i.e. the reported income is lower than the actual income received.</p>
		<p>Paid on time almost all the time?</p>	<p>699 (~94%)</p>	<p>'Of these workers, 19 (48 percent) reported that they did not know why their payments were delayed, five (12 percent) reported that the payment office delayed their payment, and other workers reported that records of the amount of cane that they had cut had not been reported to the payment office' (Verité, 65). The question is why these results have not been reported in the statistical appendix of the document.</p>

Retention of passport	Confiscation of travel documents?	N.A.		<p>There is not one clear question addressing whether the passport of an individual has ever been retained by the employer. On page 140 of the report, this field is left blank, which we interpret as a strong indication that one single incident has been reported. Also findings concerning the question P203 (Verité, 124): “Tiene algun documento de identificacion personal de Haiti?” cannot be found in the report. In the descriptive section, the question suggests that the question might have been: “Had identification documents” (p.142), but leaves out an important to part of the initial question “de Haiti.” Looking at the descriptive, it appears that only 58% (427) of all workers had a valid documentation, but without this reference, it appears that these workers never received/were issued an identity card/passport in their country of origin, Haiti. A recent article of the UNHCR confirms that an unknown/unreported number of Haitians, who have been born outside hospitals and/or in the Dominican Republic do not have any official documents (UNHCR, 2012). This is important information, which also cannot be found in the report and appears to be simply missing.</p> <p>A carnet is a temporary working permit that has to be issued upon arrival of a worker either by the employer and/or the by the General Migration Directorate. In the context of the DR it appears to be common practice that these documents are rarely issued, especially to migrants with Haitian descent and/or illegal migrants. Although the authors of the report claim that the absence of carnets are indicating constrained mobility of workers (see, case studies Verité, 61). Furthermore the authors criticize the constraining nature of the carnet system, i.e. ‘carnets link workers to a specific employer and do not</p>
	Were given carnet by employer?	157 (~21%)		
	Were issued a valid carnet in 2010?	53 (~7%)		

		Received ID card?	570 (77%)	<p>allow them to work for another employer without losing their legal status, even if they are unsatisfied with their conditions of employment' (Verité, 46). Although the report states that 'three workers surveyed reported that they could not leave because they had no papers (Verité, 47), this survey question is not documented in the survey appendix. There are also no follow-up questions to be found in the entire document, so that the validity of these findings has to be questioned. For instance, it can be the case that the respondents lied in order to hide the true nature of their motives why they could not return to Haiti. This lack of a follow up question and/or set of corresponding questions can be regarded as highly problematic in terms of leading to incorrect results and conclusions. In fact, we believe that this finding shows another inconsistency in the compilation of the document, which can be attributed to the 'ad-hoc' nature of the survey.</p> <p>Taking a closer look, it appears that 77% (570) of all workers have received an ID card, which also appears to be in line with local practices. It seems to be puzzling why only 58% (i.e. 427) of workers had an identification document, although 570 had been issued an ID card. For these reasons, we believe that this number rather reflects common local practices and thus cannot be seen as an instrument of forced labor. Furthermore, it appears to be puzzling why the first two questions have been used for filling three categories; retention of identity documents or other valuable possessions, denunciation to authorities and physical confinement in the work location (Verité, 145). It is not clear how these questions are related to either category and it appears that these questions have been 'tailored' into the categories <i>ex post</i> into the survey to make a strong case for the prevalence of forced. It is astonishing that no follow-up survey questions addressing each single issue more specifically have been</p>
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				crafted into the survey, indicating the imprecise and 'on-the-fly-construction' nature of the survey.
	Abuse of vulnerability			In addition, the report states that 'two workers interviewed reported that they had worked in construction but were temporarily working in cane cutting because there was less risk of being deported and because there was no work in the construction sector' (Verité, 41). Furthermore, the researchers explicitly state that they 'did not find evidence that deprivation of food was used as an explicit penalty' (Verité, 65). We take these two sources from the text as a strong indication that there has been no abuse of vulnerability.
Source: own comments based on Verité, 2011.				

Processing Errors

Due to the fact that we did not get physical access to the dataset and reference manuals, we are not able to identify any flaws in the report from weighting, tabulation, or construction of variables, which might have led to a reduction/validation of variables. Here's an example of what happens when you do not ask the right questions (gather the appropriate information). Once field research was well underway, it became clear that workers were, in fact, in debt to food stores. Because it was too late to alter the quantitative survey instrument, this issue was explored with qualitative research methods, including in-depth interviews and focus group discussions, which were carried out before the implementation of the survey. This finding indicates that there have been substantial lags between the development of the survey and the evaluation of qualitative results, i.e. we believe that only a fraction of qualitative findings have been used for the development of the survey. This seems to be confirmed in the following statement: "Preliminary information which was not fully analyzed was presented by CIPAF for feedback in two validation workshops that brought together various stakeholders in the sugar sector, including representatives from public institutions, employers, NGOs and human rights defenders, and academics" (Verité, 33). This can be regarded as highly problematic and represents a source of severe processing error.

As a recent handbook on 'Anti-human trafficking manual for criminal justice practitioners' suggests mental and physical health conditions of victims of human trafficking might play a significant role. As for the Verité report, the interviews for the survey lasted several hours and were held after work. We believe that the ad-hoc nature of the survey did not allow for an 'extremely sensitive and timely approaches to questioning a [potential] victim' (UN 2009, p.8). Even more interestingly the researchers do not make any reference(s) to any traumatic events of the workers they interviewed and/or surveyed. We believe that there are two potential reasons for this. First, the time of preparation and funds were not sufficient not administer this in the implementation phase. Second, the survey/research team did not see any necessity in controlling and/or accounting for this special aspect in interviewing/surveying workers, which we would expect to be prevalent in cases of forced labor. In this respect, the report also does not indicate that the interviewed workers suffer from sleeplessness, depression, and/or malnutrition, which we would expect if these workers were subject to abusive treatment by their employers. This point is critical because it appears that this aspect has been either generously neglected and/or not incorporated in the analysis and leaves out an important ethical perspective.

We believe that an additional source of bias might arise due to the fact that Verité during a post-hoc analysis of data in all seven country studies, applied a larger set of forced labor indicators issued by the ILO in December 2011 (*Hard to see, harder to count: Survey Guidelines to Estimate the Forced Labour of Adults of Children*). This means that indicators in the report are aggregated according to the 2011 ILO publication and not according to the ILO framework applied for the development of

the survey. From a referee's perspective, it appears to be somewhat confusing why Verité applied this general framework and/or way of aggregating the data. It appears that this transformation and/or different coding of data might have additionally biased the results. Consequently, we believe that this adjustment of the report might have substantially reinforced/emphasized the policy report results.

Furthermore, there are a couple of points, which we have listed below that call into question the precision with which the results have been transferred into the final document:

- It appears to be that workers seem to move in and out of the country. In this respect, 170 (~25%) report to have entered the DR in 2009 and/or 2010. This indicates that at least 139 (~20%) surveyed workers might have been able to travel between their country of origin and the DR. This might be either due to the fact that 163 workers are not residing in the DR. Unfortunately the survey does not reveal any insights whether these are seasonal workers (109 workers report to have lived in the DR for less than a year) and/or illegal migrants (potentially 54 workers) into the DR.
- Additionally, 359 workers have been back to Haiti, which is somewhat puzzling given the above numbers. In fact, these descriptive statistics are presented in a confusing way given the fact that only 29 workers report to have resided in the DR for less than 2 years. We believe that these results might be due to inconsistencies in coding the survey responses.
- This inconsistency in coding the data is also supported by the responses to the question whether a worker has 'been back to Haiti'. Although there are only 677 Haitian workers in the sample, 740 workers (also DR nationals) responded to this question. This changes the results from 49% of respondents answering that they have returned to Haiti to 53%. Furthermore, 777 respondents have answered the question of how they have crossed the border. Given that the population size is 740 in total and comprises 677 respondents of Haitian descent, it is questionable whether the data has been coded correctly and/or ex-post subsampled to support a priori determined policy implications.
- Furthermore, several questions were left out of the descriptive statistics section in Appendix 9, although these are an integral part of the questionnaire in Appendix 7. For instance, the question on how the workers communicate with their families in the DRC (question P 607) cannot be found in Appendix 9 of the report. Furthermore, even answers to questions appear to have been aggregated. Although the survey question (Verité, 129/P402): "Que trabajo hacia en Haiti?" is listed as question in the survey and has eight potential response options in Appendix 9, the corresponding question is coded differently; i.e. 502 (~74%) workers report having been employed in agriculture and 77 (~11%) in salaried work. The other categories, such as construction, are not included in the report

and it appears that responses to these questions have been coded according to certain criteria that are not documented in the report. Although this appears to be a minor issue of concern, we believe that this highly selective way of coding the data can be problematic if important information, such as communication with family in Haiti are dropped and/or simply not reported.

- Several sections of the paper are written misleadingly and/or are imprecise. The following quote is an excellent example of this way of presenting results:

“While 462 workers (62 percent) reported that they were satisfied with this system, 162 (22 percent) reported that their cane was not being weighed properly, and 102 workers (14 percent) reported that they were not satisfied with the weighting system. Upon further inquiry, a little over half of the workers who reported they were not satisfied reported that it was because they were paid too little, while a third reported that their employers did not always weigh the cane accurately, and ten percent reported that they were deceived or cheated in the weighing of the cane. Some of these workers reported that the cane was not weighed in front of them and that the cane was sometimes left on the ground for days before it was weighed (which can reduce the weight through evaporation of the cane juice), and that when payday came they were paid much less than the amount that they were entitled to according to the number of tons of sugarcane that they had actually harvested” (Verité, 57).

Although the beginning of this section is written relatively clear, the information about how many workers have not been satisfied with the weighing system is not indicated. We calculated that these were 278 (~37%) that were not satisfied with the weighing system. However, in the second sentence, we believe that the authors try to use an artificial exacerbation of their finding.

- Original text source: “A little over half of the workers who reported they were not satisfied reported that it was because they were paid too little, while a third reported that their employers did not always weigh the cane accurately, and ten percent reported that they were deceived or cheated in the weighing of the cane.”
- Translated text source: 17.5% (~139) reported that it was because they were paid too little, while 12.3% (~92.6, this must have been rounded) reported that their employers did not always weigh the cane accurately, and 3% (~27.8, this must have been rounded as well) reported that they were deceived or cheated in the weighing of the cane.

We believe that the way Verité is reporting findings is highly suggestive and misleading. Furthermore, we do not have an accurate sense of what the authors mean by the expression ‘Some of these workers reported...’. For us it is unclear, who these workers were and whether these workers are the workers in the entire sample (740) and/or just the workers that have not been satisfied with

the weighing of the sugar cane. This is highly imprecise and hides the true extent of these practices. We believe that a clarification would be required in order to assess this finding more thoroughly. Nevertheless, it appears that this language has been used to make the situation look worse than the situation is.

Taking together these factors, we believe that there have been substantial processing errors during and after the data collection process. These should have been mentioned by the authors and call into the question overall policy implications of the report. Especially, we believe that an artificial over reporting of cases, as calculating the percentage of ‘new residents’ in the DR has to be viewed extremely critically and is certainly scientifically not sound.

2.4.5 Measurement Error

Measurement error occurs when there are differences between the estimated value and the true value due to survey design elements. It arises from inaccuracies along four sources:

- The questionnaire; e.g. unclear questions, inadequate response options

We believe that measuring forced labor correctly is one of the main limitations of the survey. In order to address this issue we have prepared an overview table (see also Table 5) that reports, instances of measurement error in the Verité report.

It appears to be puzzling why the researchers explicitly name the CEA, CR, CAEI and Barahona in one survey question, but not the other listed companies in the report (see question P309/p.127). The corresponding question in Appendix 9 also hides this piece of information.

Far more worryingly the question on the prevalence on violence, fear, and anxiety, is placed at the end of the survey and has not been posed as a question to the worker, but is a simple yes/no question for the enumerator (P704, p.134). This is not a worker’s answer to the question, but an assessment of the enumerator on the mental condition of the respondent. The report does not make any clear reference how to interpret this question, although it seems to be central to the line of argument made in the paper. If we assume that Yes/No is not a respondent’s answer to the question, it is unclear what this question actually implies as it is not related to the current working conditions and does not appear to be related to the employer/supervisor. Fear, anxiety, or intimidation could be also triggered by other factors, e.g. mental health condition of respondent, traumatic experiences during their time in Haiti (e.g. Amnesty International 2013), personal perception of overall situation in the household and/or in the Dominican Republic, and/or the presence and appearance of the enumerator. For instance, a recent Amnesty International Report’s findings

indicate the prevalence of arbitrating arrests, torture and killings by the police (Amnesty International, 2012).

Given the overall level of hostility towards Haitian migrants in the DR, it seems to be reasonable that these migrants are particularly vulnerable to random police violence, forceful deportation and xenophobia (see Alatorre, 2013). Although additional questions filtering out these cross-cutting effects would be required and would need to be posited directly to the worker(s), the report/survey does not have any supporting/validating questions. Third, even if these factors could be eliminated as a source of statistical bias, there is no indication on the severity/intensity of these perceptions as the questionnaire does not include any intensity measure. For these reasons, it is unclear to what extent this question delivers any statistically 'robust' and objective results, as fear, anxiety, or intimidation could be driven by unrelated other factors, e.g. even the presence of the enumerator might have triggered these.

Additionally a questionnaire module measuring the experience of actual physical violence is missing. Including such a survey question could have been easily attained through adapting several questions and questionnaire modules, for instance, from the National Crime Victimization Survey (NCVS) of the Department of Justice in the United States. We have copied an example of such a survey question below:

Illustration 1: NCVS Questionnaire Excerpt (NCVS 2013, p. 5)

41a.

(Other than any incidents already mentioned,) has anyone attacked or threatened you in any of these ways -

(Exclude telephone threats) -

Read each category.

- (a) With any weapon, for instance, a gun or knife -**
- (b) With anything like a baseball bat, frying pan, scissors, or stick -**
- (c) By something thrown, such as a rock or bottle -**
- (d) Include any grabbing, punching, or choking,**
- (e) Any rape, attempted rape or other type of sexual attack -**
- (f) Any face to face threats -**

OR

(g) Any attack or threat or use of force by anyone at all? Please mention it even if you are not certain it was a crime.

Ask only if necessary

Did any incidents of this type happen to you?

- 541 1 Yes - ASK 41b
2 No - SKIP to 42a

41b.

How many times?

542 _____
Number of times (41b)

Against this background, it is even more worrisome if the answer to the question in survey in the Verité Report lead to the conclusion that “research detected evidence on the presence of the following indicators of menace of penalty (the actual presence and threat of): physical violence, ...”(Verité, 9). If this statement is derived upon the basis of the above discussed question in the report, then this statement is clearly false because none of the questions in the survey relate directly to and/or ask workers on physical violence!

Taking together these findings, it appears that reported variables have been constructed to support and/or even make a strong case for forced labor in the sugar cane industry in the Dominican Republic. We believe that this is an important source of measurement error and/or misreporting that artificially supports the claims of the authors of the report.

- Mode of data collection; e.g. sponsorship, data collection methods

Although workers were interviewed in their living quarters after work (Verité, 31), we believe that the ad-hoc nature of the survey did not allow for an ‘extremely sensitive and timely approaches to questioning a [potential] victim’ (UN 2009, p.8). Even more interestingly the researchers do not make any reference(s) to any traumatic events of the workers they interviewed and/or surveyed. For this reason, we believe that errors might emerge in the dataset driving results.

- Characteristics of the interviewer; e.g. interviewer expectations, social pressure in the interviewer-respondent relationship

It appears to be puzzling why the researchers explicitly name the CEA, CR, CAEI and Barahona in one survey question, but not the other listed companies in the report (see question P309/p.127). This is highly problematic given the fact that workers of other firms have also been interviewed, but suggests that the questionnaire concentrated on these three firms. For this reason, it appears that this question is not only misleading, but also rather reflects interviewer expectations. Furthermore these response options for this question are not listed in Appendix 9 of the report (pp.142).

Furthermore, we are puzzled that it has been so easy for the enumerators to get access to the *bateyes* to interview the workers. Additionally, it seems to be counter-intuitive that the authors do not once mention and/or account for a potential traumatization of workers in the *bateyes*. We believe that accounting for potential psychological trauma during the interview is an important feature that apparently has not played any role for the research team. Especially, given the fact that CIPAF (a non-governmental organization specializing in gender and

equality issues) has carried out the research, we are more than irritated that the researchers did not even consider this central psychological and ethical dimension of forced labor when surveying the workers. Not accounting for these factors is certainly a main short-coming of the report and calls into question the scientific quality of the report.

- Characteristics of the respondent; e.g. respondents' memory
An important distinction for interpreting findings is that “during the rapid appraisal phase, workers were asked about their current experiences, whereas during the survey, workers were asked about their experiences during the previous harvest” (Verité, 7). However, the statistical results are based on the survey, which have been conducted in the period between June and August 2010. This might be problematic due to the fact that workers might not perfectly memorize events and the timing of events correctly. This is especially problematic, given the fact that some of the interviewed workers might be traumatized and/or be scared of being deported to Haiti. Furthermore it is well established in the policy literature that migrants are rather hesitant to report violations of their rights and file formal complaints (Davis and Erez, 1998). As in the case of Haitian migrants, we believe that this might be a source of significant bias, as many workers might have feared deportation, a loss of their jobs and/or a punishment of their families. In this respect, we find it astounding that the researchers also ‘generously’ ignore this ethical dimension of their research venture. It appears that researchers either did not care about this aspect of their research and/or genuinely ignored this aspect. One of the main interpretations of this behavior would be that workers were not subject to forced labor and/or did not fear retaliation of their employer and thus allowed them to talk freely about their experiences. Another potential reason might also have been that the research team has not been perceived as threatening. If this was the case, a clear note should be made in the document. However, we could only find one reference indicating that enumerators ‘thought’ most interviewed workers were comfortable in answering questions.

3 Overall Assessment

Clearly and undoubtedly, the survey data are biased and do not accurately reflect the forced labor situation in the sugar industry in the Dominican Republic. As such, the findings of the paper are not robust enough to build the basis for further policy recommendations. Nevertheless, the authors claim that some of the workers meet the “involuntariness and menacing” criteria laid out by the ILO, and as such are forced laborers. In actuality, per the survey results, just one percent of the sample ‘answers’ (actually the relevant question has never been asked directly) the incomplete questionnaire in a manner that they could be classified as forced laborers. So, two key questions to explore are: (1) Is one percent a sufficient share to make meaningful conclusions; and (2) Is there a sufficient number of questions to accurately classify individuals as forced laborers?

In order to answer this first question whether percent is sufficient share to claim the industry wide prevalence of forced, we now turn to detailed analysis of this claim and list our final assessment in the table below:

Table 6: Assessment of Policy Recommendations

Criterion	Short-coming	Own Assessment
Physical confinement in the work location	No measure	Not indicated
Psychological compulsion (i.e. an order to work with a credible threat of penalty for non-compliance)	Imprecise measure	Not indicated
Induced indebtedness	Imprecise measure	Not indicated
Withholding, non-payment of wages	Measure ok	Not indicated
Retention of identity documents	No measure	Not indicated
Physical violence against workers	No measure	Not indicated
Deportation	No measure	Not indicated
Dismissal from current employment	Measure ok	Indication ambiguous
Exclusion from future employment	Measure ok	Indication ambiguous
Deprivation of food and shelter	Measure	Not indicated
Working hours in excess of legal limits	No measure	Not indicated
A lack of days off, subminimum wages	Imprecise measure	Not indicated
Illegal deductions	Imprecise measure	Not indicated
Vouchers	Imprecise measure	Not indicated
Poor health services	Imprecise measure	Not indicated

Poor living conditions	Imprecise measure	Not indicated
Child labor	2 observed cases	Ambiguous
Source: Own assessment based on Verité, 2011		

From this perspective we believe that the quantitative and qualitative results are not sufficient to support one single point that has been claimed in the report.

We find it especially worrisome, that the evidence for child labor is based on two single cases of a nine years and a twelve years old child. The report suggests that these children have been employed cutting cane. In fact, could only interview the nine year old child that claimed to help his father and other sugar cane cutters (Verité, 78) and doing this activity outside of school. We believe that this might represent a border line case that would have called for further investigation. However, the researchers did not further pursue this case and do not provide any more profound and detailed information. Instead the research team interviews several children/teenagers in the age between 14 and 17 years old. Although it appears that children still work in some bateyes, we are not able to reconstruct the extent and/or answer the question whether these children have been employed by a firm and/or just helping their parents. For this reason, we are not entirely convinced that the detection of these two children would qualify for making a strong case for the prevalence of child labor and/or forced child labor.

Although the 'one percent' might not represent a statistical cohort of workers in the sugar cane industry, these respondents do exist. However, this leaves us with the question whether there are sufficient questions to accurately classify individuals as forced laborers.

Per this question, we see no clear connection between theoretical concepts and constructs and survey variables due to both misspecification of questions and omitting important questions. Potentially this might be present due to the fact that a general template of the ILO has been used and questions have been translated into Spanish/Creole without adaptations to the context. Although this type of standardization is useful in crafting relatively quickly and easily a survey (i.e. the underlying survey was crafted during the actual evaluation of the forced labor situation in the DR sugar sector), population specific characteristics might be left out of the study. For instance, it is not clear whether immigrant workers perceive working conditions to be better in the Dominican Republic than in Haiti. This is a necessary step in order to underpin and validate the findings in a given context. However, the researchers have chosen not to control for this context specific effect(s) in their model setup (see also table 5).

Overall, it seems to be contradictory why on the one hand the authors of the report claim that ‘this research was not intended to determine the existence or scale of forced labor’ (Verité, 7), and on the other hand claim that “using ILO guidance on ‘Identifying Forced Labor in Practice’ research detected evidence of the presence of the following indicators of lack of consent and menace of penalty” (Verité, 80) that are representing the theoretical foundation of identifying forced labor practices. From a reviewer’s point of view the findings stand in stark contrast to the initial aim of the paper. The main reason for this standpoint seems to rest on severe flaws during the design and implementation phases of the worker’s survey, which render main empirical findings severely biased, and can be expected to lead to misleading policy conclusions.

Our main conclusion is that due to sampling and non-sampling errors, the survey results cannot be used to support policy. Moreover, whether forced labor is still present in the sugar industry in the Dominican Republic is highly doubtful, given the findings of the current literature and the poor application of the ILO template for determining this in the report.

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