

# Informing Risky Migration: Evidence from a field experiment in Guinea

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## Abstract

Can information provision reduce the risks associated with irregular migration? We address this question conducting a large-scale experiment with about 7,000 secondary school students in Guinea. Combining aggregate statistics and video-testimonies by migrants who settled in Europe, we study the effect of three information treatments: (i) about risks and costs of the journey; (ii) about economic outcomes in the destination country; and (iii) a treatment pooling (i) and (ii). We find that one month after the intervention, all three treatments affect beliefs about the risks and the economic outcomes of migration. However, 1.5 years after the intervention, only the first has a significant effect on migration outcomes: providing information about the risks and costs of the journey reduces international migration by 51%. The effect is driven by a decrease in migration without a visa (i.e., potentially risky and irregular). Furthermore, the reduction is larger for students who, at baseline, underestimated the risks connected to international migration.

**Keywords:** irregular migration, trafficking, information experiment, Guinea

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# 1 Introduction

Recent years have seen a surge in irregular migration from Africa to Europe, creating a first-order humanitarian problem and a fundamental policy challenge. This type of irregular migration has two main characteristics. First, African migration routes are fraught with severe physical, and sometime fatal, risks, including violence, kidnapping, trafficking, and drowning while crossing the Mediterranean Sea. Approximately 23,000 migrants died or went missing while trying to cross the sea from 2014 till 2019 (IOM, 2019b). In the same period, over 70% of irregular migrants who reached Italy from Africa reported experiencing violence during transit (IOM, 2018b). Second, irregular migrants who manage to reach Europe encounter monetary and legal obstacles to labor market participation, hampering their ability to find a regular occupation. For instance, a recent survey of irregular migrants in Italy finds that only 31% work at least from time to time (Achilli et al., 2016). Yet, about 575,000 people crossed the Mediterranean from Africa irregularly from 2014 to 2017 (Frontex, 2019).<sup>1</sup>

Are potential migrants aware of the risks of the journey and of the economic prospects at destination, when they make the decision to migrate? Answering this question is of paramount importance to design policies to minimize the human and economic costs associated with irregular migration. Lack of accurate information about the expected costs and benefits of migration could in fact result in ex-post sub-optimal decisions. If this is the case, information interventions targeting prospective migrants may be an effective policy tool.

To address the above questions, we designed a randomized control trial involving 160 secondary schools and over 7,000 students in Conakry, the capital of Guinea. Guinea has been a relevant source of irregular migration to Europe over the past years, and, maybe surprisingly, high-school graduates are over-represented among Guinean irregular migrants (IOM, 2018a; UNHCR, 2017). The main goal of our intervention was to make participants aware of the risks associated with irregular migration and of the likely employment prospects for irregular migrants, ultimately helping them assess the relative costs and benefits of migrating irregularly, migrating regularly, or not migrating. In particular, we address the following research questions: (i) Does providing information about the risks of the journey from Africa to Europe affect recipients' beliefs about the costs of irregular migration? (ii) Does providing information about earnings and employment prospects in destination countries influence recipients' beliefs about economic returns to migration? And most importantly, (iii) Do these two types of information influence people's choice to migrate?

Our intervention, designed in collaboration with a local NGO, combined video-testimonies by men and women who migrated irregularly and eventually settled in Europe with slides showing hard data from migration statistics. We randomized the schools in our sample into four groups: a control group and three treatments. The first treatment (T1) delivers information about risks of the journey from Africa to Europe. We use video-testimonies and easy-visualization slides to inform students on the risks connected to trafficking and the hardships of traveling through the Sahara desert or of crossing the Mediterranean (see Figure B1). The second treatment (T2) provides information about migrants' economic outcomes in the destination countries,

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<sup>1</sup>Estimates report that irregular crossings to Europe in 2017 were 45% higher than irregular crossings in 2011 and 182% than in 2012 (authors' elaboration of Frontex data).

using the same format as T1, that is, video-testimonies and slides with statistical data. The information provided includes the expected probability of employment and the probability of being granted asylum (see Figure B2). The third treatment (T3) pools together the two previous types of information. By differentiating the information provided in different arms, our design allows to disentangle the relative importance of different types of information and their potential complementarities.

We conducted three rounds of data collections: a baseline, a first follow-up 4 months after the baseline and a second follow-up 15 months after the baseline. The timeline of the first and second follow-up surveys approximately corresponds to one month and one year after the intervention, respectively. We assess the impact of our treatments on three dimensions: (i) beliefs about the risks associated with the journey and the outcomes of migration, (ii) migration status, and (iii) migration intentions. The risks connected to the journey were elicited separately for different migration routes from Africa to Europe.

Our first set of results show that all three treatments significantly affected beliefs related to risk and economic outcomes at the first follow-up. Our second set of results show that the risk treatment (T1) reduces international migration by 51 percent relative to the control group that received no information. Consistently with belief updating, we show that the impact of T1 is only significant for students who received ‘negative surprises’ from the information given during the intervention. The treatment only affects migrants without a visa, consistent with the possibility that the individuals who have been discouraged from migrating have opted out of the risky irregular route. Furthermore, the effect is concentrated among students with lower assets and without a bank account, who plausibly face tighter constraints on investing in a safer route. Providing information regarding the economic outcomes in the destination countries (T2) does not influence the probability of international migration, nor does the joint provision of information about risks and economic conditions (T3).

Overall, our findings suggest that potential migrants update their beliefs about the risks and economic returns associated with irregular migration in the short run in response to a simple and easy-to-replicate information intervention, and that knowledge of the risks and costs of the journey ultimately affects migration choice, potentially reducing migration along less safe routes. The null results for migration outcomes in T2 and T3 also imply that information interventions focusing on economic information may not have a strong impact on migrants’ choices. This is consistent with the idea that, compared to the information they received, students in our sample are less optimistic about their economic chances abroad than they are about the risk of the journey. This, in addition, may have reduced the persuasive content of risk information in the treatment delivering both types of information.

Our work contributes to two main strands of literature. First, it relates to recent studies investigating the role of migrants’ expectations about economic conditions in the destination countries and perceptions of risk on migration’s decision. Among others, [McKenzie et al. \(2013\)](#) exploit a natural experiment in which Tongans can acquire the right to migrate to New Zealand through a lottery. Comparing the expectations of Tongans who won the lottery (and could migrate) and of those who did not (and could not migrate), authors show that male lottery applicants underestimate the odds of being employed and incomes; instead, female lottery applicants have more accurate expectations. They interpret these results as evidence that immigrants mitigate

the pressure to send remittances by understating or not revealing their earnings when communicating with their extended family in Tonga. On the contrary, [Hoxhaj \(2015\)](#) finds that migrants to Italy overestimate wages, and [Shrestha \(2017\)](#) shows that prospective migrants from Nepal to Malaysia and the Persian Gulf countries overestimate wages but also the probability of dying on the job. In a lab-in-the-field experiment in rural Gambia, [Bah et al. \(2018\)](#) show that individuals overestimate the probability of obtaining a residence permit as well as the risk of dying *en route*.<sup>2</sup> While all these studies suggest that misinformation is widely present among potential migrants, they come to different conclusions about the direction of such misinformation depending on the context. Our work complements this literature by focusing on a context that is particularly relevant to the current migration debate (i.e., irregular migration from non-OECD countries) and by testing a low cost and scalable approach to mitigating information asymmetries. In addition, we elicit beliefs separately for different migration routes, something that, to the best of our knowledge, has not been done in the literature.

Second, our paper contributes to the recent literature on information interventions to target prospective migrants' lack of information. [Shrestha \(2017\)](#) randomizes information about earnings and risk-of-death in the destination countries to Nepali passport's applicants: by correcting pre-treatment misperceptions, the risk-of-death information increases migration while the earnings information decreases it. Other authors consider the impact of information interventions on migration *intentions*. [Bah et al. \(2018\)](#) design a lab-in-the-field experiment in the Gambia, eliciting hypothetical migration choices on varying chances of dying en route and of obtaining legal residency status. They also find that potential migrants overestimate both the chances of dying en route and of obtaining a legal residence permit. [Dunsch et al. \(2019\)](#) show that peer-to-peer communication about the risks of the journey reduces migration intentions in Senegal three months after the intervention. Among media-based information interventions, [Mesplé-Soms and Nilsson \(2021\)](#) find that, in rural Senegal, documentaries about positive or negative migration stories do not affect migration intentions two to four months after the intervention.<sup>3</sup> Aside from [Shrestha \(2017\)](#), the above studies have mostly looked at migration intentions. In our paper, we focus on behavioral outcomes in addition to migration intentions. Different from [Shrestha \(2017\)](#), we focus on irregular and potential migrants and design an intervention providing information on the risk of the journey, an extremely relevant application in the current context of perilous irregular migration routes.

The remainder of the paper is organized as follows. In section 2 we describe the background and the study setting. In section 3 we present the experimental design and data collection. Sections 4 and 5 explain the empirical strategy. In section 6 we report our main results and section 7 concludes.

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<sup>2</sup>Consistent with the idea of overestimating returns to migration, [Farré and Fasani \(2013\)](#) find a negative effect of TV exposure on internal migration in Indonesia. They interpret this result as showing that information on TV decreased expectations about income to be earned elsewhere.

<sup>3</sup>For a different use of short documentaries in the context of aspiration interventions, see, e.g., [Bernard et al. \(2014\)](#).

## 2 Background

### 2.1 Migration routes from Africa to Europe

European countries impose tight restrictions on immigration from Africa. While visa requirements have generally grown less restrictive in the last fifty years, this has not been the case for migration African countries (Mau et al., 2015). Since the 1990s, African migrants have been trying to circumvent barriers to mobility by reaching Europe irregularly. The main migration routes, depicted in Figure B3, require crossing the Sahara desert and then crossing the Mediterranean Sea towards Europe either from Libya (Central Mediterranean or Libya-Italy route) or from Morocco (Western Mediterranean or Morocco-Spain route) (Fargues and Bonfanti, 2014).<sup>4</sup>

After the Arab Spring in early 2010s and the subsequent outbreak of civil war in Libya, Northern African countries have been at the forefront of human smuggling operations (Tinti et al., 2018), with virtually no control by local institutions until recently. It is estimated that, from 2014 to 2017, 475,000 people crossed the Mediterranean along the Central Mediterranean route and approximately 23,000 migrants lost their lives at sea between 2014 and 2019 (IOM, 2019b; Frontex, 2019). In addition, those who travel through this route endure life-threatening conditions when crossing the desert (MMC, 2018; MMC, 2019) and then enter war-thorn Libya, where human trafficking has flourished. A recent survey of irregular migrants in Italy, mainly conducted in reception facilities and meant to be representative of the irregular migrant population, finds that 76 percent of male migrants and 67 percent of female migrants reported having experienced trafficking (IOM, 2018b).<sup>5</sup> Furthermore, Western Africans face particularly high risk of trafficking and violence on their migration to Europe (IOM, 2018b); this makes them an important target for information interventions.

In the last years, border enforcement cooperation between Italian and Libyan institutions has strongly reduced migrants' crossings from Libyan shores. At the same time, migrants' take up of the Western Mediterranean route has increased (MMC, 2018). Despite the difficulty in collecting timely data about irregular migration, there is some evidence that the latter route is safer. Estimated frequencies of drowning for migrants crossings on the Western Mediterranean Route are less than half those on the Central Mediterranean Route, for all years with data (GMDAC, 2020). In addition, comparison of migrants' surveys collected on the Western Mediterranean and Central Mediterranean routes suggests that migrants going through the former face less risk of trafficking. A share of 42% of male and 30% of female migrants crossing on the Western Mediterranean route report having experienced physical violence during migration, compared to 80% male and 66% female for migrants on the Central Mediterranean Route. On the Western Mediterranean route, 49% of male and 40% of female migrants report trafficking, compared to 76% and 67% on the Central Mediterranean route (IOM, 2018b; IOM, 2019a).

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<sup>4</sup>Figure B3 shows as well the Eastern Mediterranean route which involves maritime migration from Turkey to Greece and, to a lesser degree, Cyprus and Bulgaria. It was the main maritime route used for irregular entry to Europe in 2015 but the number of people using this route dropped sharply after the implementation of the European Union–Turkey agreement in late March 2016.

<sup>5</sup>IOM (2018b) defines as victims of trafficking persons who (i) worked or performed activities without getting the expected payment, (ii) were forced to perform work or activities against their will, (iii) were offered an arranged marriage, or (iv) were kept at a certain location against their will.

## 2.2 Study setting

Guinea is a low-income country located in the West Coast of Africa with a GDP per capita of \$855 in 2017 and a total estimated population of 12 million people (WB, 2019), 2 of which live in the capital, Conakry (INS, 2014). Despite having a smaller population than other Western African countries, such as Nigeria or Senegal, Guinea ranked first as country of origin for migrants crossing to Europe irregularly through the Mediterranean in 2018, with an estimated 14,400 arrivals, 10% of all seaborne irregular arrivals in the same year (UNHCR, 2019). During that time, migrants were mainly crossing through the Central Mediterranean route, connecting Libya and Italy, and being rescued by European authorities or NGOs. Based on our elaboration of UNHCR crossings data, assembled from routine personal identification procedures conducted after migrants were disembarked in Europe, Guineans accounted for 8 percent of the migrants rescued at sea between 2016 and 2019. Further, individuals with secondary education constitute the majority of Guinean migrants who reached Italy irregularly in the last years. IOM (2018a) find that, among Guinean migrants, 55% has secondary education or higher.

## 3 Experimental design and data

### 3.1 Sample and Intervention

We conducted a cluster randomized controlled trial, randomly selecting 160 out of all the 300 high schools located in Conakry and dividing them into four separate arms with equal allocation probabilities: one arm received information about the risks of the journey for irregular migrants (T1), one arm received information about economic outcomes abroad (T2), and one received both types of information (T3). The fourth group did not receive any information (control group). The geographic location of the schools across treatment groups is reported in figure B5. To reduce the chances of spillovers, we imposed a minimum distance of 400 meters between pairs of schools chosen.

On the baseline survey date, we collected students' attendance registries for each class. Then, we randomly selected 50 students from the list of those present in the eleventh to thirteenth grade (thirteenth grade is the last year of high school). When less than 50 students were present in the school, we selected all of them. We invited them to participate to the information sessions during regular class hours, along with a member of the school administration, and, to avoid discontent, we clarified that students were randomly selected for research purposes. This gave us an initial sample of 7,387 individuals. The schools in our sample had, on average, 557 students and 13 classes; the smaller school had 16 students and the larger 2,862. Note that roughly 52 % of the individuals who reside in Conakry in the 15-24 age bracket attend school (INS, 2014). The focus on eleventh to thirteenth grade students is motivated by the fact that migration rates seem to be particularly high in this age bracket. Available survey data on migrants, registered at transition hubs in Italy, report an average (median) age of 20 (19) years among Guineans (IOM, 2018a).

The intervention was designed in collaboration with 'Un Sole per Tutti,' an NGO based in Italy with the main mission of hosting international migrants, and was implemented by a Guinean

NGO based in Conakry, ‘Aguidie’ (*Association Guineenne pour le Développement Integral de l’Enfant et du Jeune*). It consisted in a one-day session for each treated school, where students were gathered by Aguidie’s moderators in a common room. We scheduled the information sessions with the school administration in advance and sent students SMS reminders with the time of the session the day before.

The overall structure of T1 and T2 was very similar. In both treatments we provided information using three tools: (i) a short video, (ii) a projection of slides representing the probability of various outcomes through stylized silhouettes of humans, and (iii) the distribution of a flyer with a cartoon that students could bring home. The videos included approximately 15 minutes of testimonies and 5 minutes of a fictional example story. Testimonies were given by migrants and were recorded at a reception center for asylum seekers (SPRAR) in Brescia, Italy, in 2017. The migrants interviewed were from West Africa and participated on a voluntary basis. The fictional example story was designed and filmed in collaboration with our partner NGOs. Treatments 1 and 2 lasted about 30 minutes each, while treatment 3 (which combined T1 and T2) lasted about one hour. We now describe separately the content of our three treatments.

**T1 (risk treatment).** Treatment 1 was administered in 40 schools and consisted in providing information about the risks and the cost of the journey from West Africa to Europe. In this treatment arm, the video-testimonies recorded with former irregular migrants were characterized by the recounts of the extremely hard conditions of every stage of the journey, with a particular focus on the hardships experienced in the Sahara Desert, the time spent in Libya, and the trip by boat across the Mediterranean Sea. According to the testimonies, crossing the desert involved traveling in vehicles packed with migrants well above capacity, with the risk of dying choked by sand, or perishing in a car accident. Migrants also reported direct or indirect experience of violent extortion by authorities during travel in Mali and Burkina Faso, imprisonment and torture in Libya, and human sales occurring along the journey. They depicted boat trips as extremely unsafe due to the overcrowding of small boats inadequate for travel. The ability to swim did not constitute a solution, according to one migrant, because of the large distance between the Libyan and the Italian coasts. Overall, these testimonies communicated a general feeling of lack of dignity and dehumanization by smugglers. The fictional example story that followed the video-testimonies included the story of a migrant leaving for Europe from a city in Africa, crossing the desert in hardships and finally drowning in the Mediterranean Sea.

Finally, the slides projected at the end of the video displayed real data on (i) the length of the journey, based on statistics from [IOM \(2018b\)](#), (ii) on the probability of exploitation, and (iii) on the probability of suffering violence, based on data from [UNHCR \(2017\)](#). Figure B1 shows a screenshot from the video-testimony (leftmost panel), and an example of a slide (rightmost panel) indicating, for example, that 7 migrants out of 10 have experienced physical violence during their journey across the Mediterranean Sea.

Before closing the session, students had a collective discussion on what they had seen and heard, moderated by the staff of our local partner. At the end of the intervention, a flyer was distributed with information on the risks connected to the journey, recounted through a short story in the form of a cartoon.

**T2 (economic treatment).** The second treatment focused on providing information on migrants’ economic conditions in the destination countries. Like T1, this treatment had three parts:

the video-testimonies, the fictional example story, and the slides. In the video-testimonies, migrants' stories revolved around the lack of jobs and their status as irregular migrants in Italy. They compared their expectations before leaving their country to what they found once arrived in Italy. In some cases, expectations were simply related to finding 'a job and documents,' while in others the migrants described their high hopes about financial security. Some mentioned their expectations of buying a house and a car with their salaries. Others said that they had hoped to attain education and send money home. Sadly, all of them reported they did not fulfill their expectations. They stressed their inability to obtain legal status in Italy and to find a job. In general, they communicated a lack of financial independence. One of them explicitly mentioned the gap between expectations and reality and invited the viewers not to trust information on the social media.

The fictional example story in T2 consists of two short clips. The first is a migrant who is texting a friend in Guinea. The background first shows a beautiful house, but then it is revealed that the migrant is in his sleeping bag at the railway station. The second clip shows a migrant sending the picture of a nice car to a friend, as if it were his own, while begging in front of a supermarket. The aim of these videos was to highlight the contrast between the reality in the destination countries and the distorted information that migrants send home.

The slides used for T2 included data on France, Italy, and Spain, the three most frequent hypothetical destination countries for our target population elicited during the baseline survey. The data included estimates of (i) the probability of working, (ii) the probability of studying, and (iii) the probability of getting asylum when requesting it. We calculated the first two probabilities from the EU Labor Force Survey and the third one from Eurostat. As before, statistical information was visualized in a way to make it accessible. Figure B2 shows a clip from the video and an example of a slide we showed to the students. Also in T2, the information session was followed by students' discussion on what they had seen and heard. Again, at the end of the treatment, a flyer was distributed with information about economic outcomes of irregular migration, recounted through a story in the form of a cartoon.

**T3 (double treatment).** In Treatment 3, we pooled the information provided in T1 and T2, showing both video-testimonies and fictional example story, both sets of slides, and having a joint discussion of the two topics. At the end of the discussion, students were given both sets of flyers.

## 3.2 Data

We conducted three rounds of data collection. The baseline data collection started in November 2018, at the beginning of the academic year, and lasted until January 2019. The intervention started in February and ended in mid-April 2019. The first follow-up survey took place from April to June 2019, at the end of the academic year, and it was rolled out so that each school was surveyed approximately one month after the treatment. A second follow-up survey was conducted from mid-January to mid-April 2020, again on a rolling basis, roughly one year after the treatment.

Participation in the surveys and in the treatment sessions was voluntary. According to our



records, none of the students present at school refused to participate.<sup>6</sup> Surveys were self-administered in class using tablets. We also collected information on whether students attended the information session.

The main outcomes we elicited during the baseline and the first follow-up survey were (i) migration intentions, (ii) perceptions about the risk of migrating, and perceptions about the economic returns to migration. During the second follow-up survey, we also collected data on (iii) migration status.

**Migration intentions.** To measure migration intentions, we took inspiration from the Gallup World Survey: we asked three questions on (i) whether the respondent would migrate to another country if this were possible, (ii) whether he/she was planning to move to another country, and (iii) whether he/she was preparing for the move. If the answer to (i) or (ii) was affirmative, we also asked which countries they wanted to migrate to. We use these questions to construct three indicator variables: *Wishing to Migrate*, *Planning to Migrate* and *Preparing to Migrate*.

**Risk perceptions.** We elicited perceptions of risk as probabilities of trafficking and other risky events occurring along the journey. We asked questions about risks along the routes through Italy and through Spain, separately. In order to elicit probabilistic beliefs, we first asked the individual to imagine 100 people exactly like him/her undertaking migration through a given route, and then we asked how many of those 100 individuals would see the realization of a particular event.<sup>7</sup> All probability questions are therefore expressed on a scale 0-100. Scenarios include: being beaten or physically abused during the journey, working without pay, being held against one's will during the journey, dying before starting the trip by boat, dying during the trip by boat, being sent back to Guinea within a year from arrival.<sup>8</sup> We also asked the expected duration (in months) and the expected cost of the journey (in Guinean Francs, GNF). In the analysis, we winsorize them at the 5<sup>th</sup>/95<sup>th</sup> percentiles in order to deal with outliers and we apply the inverse hyperbolic sine transformation to deal with skewness.

**Economic perceptions.** To measure expectations about economic outcomes abroad, we first elicited information about potential destinations in Europe for an individual like the respondent. We then followed up with questions on the probabilities of the following economic outcomes in the country mentioned: finding a job, continuing with studies, getting asylum, becoming a citizen of the country, going back to Guinea within 5 years from arrival, receiving money from the government, and the fraction of the population in favor of migration in the receiving. We asked these questions in the same way as before, by referring to 100 hypothetical individuals exactly like the subject. We also asked a question about the expected wage abroad and a question about the cost of living.<sup>9</sup> Again, we winsorize expected wages and cost of living at the

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<sup>6</sup>We incentivized the completion of the survey by drawing three tablets (of the value of around \$200) among all participants who completed the questionnaire.

<sup>7</sup>For example, we asked: 'Among those 100 people, how many of them will be beaten or physically abused during the travel?'

<sup>8</sup>*Working without pay* and *Being held against one's will during the journey* are included in the definition of trafficking experiences by IOM, together with *Offers of arranged marriages*, that we did not include in our questionnaire given that these are infrequent in the Central Mediterranean route according to IOM (2018b).

<sup>9</sup>The wording of the latter question was: 'Consider one person who is living alone in Conakry. This person spends 1 000 000 Guinean Francs per month to cover all his/her expenses (rent, food, transport, etc.). How much should this person spend to live in the same way in CHOSEN.COUNTRY in Guinean Francs? Suppose

5<sup>th</sup>/95<sup>th</sup>, in order to deal with outliers, and we take the inverse hyperbolic sine of each variable.

**Optimistic/Pessimistic beliefs at baseline.** Based on the beliefs data, we construct an indicator for whether the individual had optimistic beliefs at baseline. Respondents in the risk treatment (T1) are defined as ‘underestimating’ risk if they report an expected value lower than the actual one for at least two of the risk variables we included in the slides as ‘hard information:’ the probability of being beaten, the probability of being exploited, and the length of the journey (in months) for the Libyan-Italian route. For the economic treatment (T2), we define respondents as ‘overestimating’ the economic benefits of migrating if they have a higher assessment than the information given for the probability of finding a job, continuing with studies, or obtaining asylum if requested, and we define as ‘optimistic’ the respondents who expect values that are higher than the ones we announced. For the double treatment (T3), we define respondents as optimistic if they are optimistic for risk beliefs and/or economic beliefs.<sup>10</sup>

**Migration status.** In addition to the outcomes described above, during the second follow up, we collected data on respondents’ migration status from a variety of sources, aggregated hierarchically as follows. First, we recorded students’ presence at school at the date of the survey, using tablets. Second, we conducted phone surveys with respondents, using the phone numbers they provided at baseline. Third, we conducted phone surveys with respondents’ contacts, again using phone numbers provided by the respondents in the baseline questionnaire. The phone surveys were shorter than in-person surveys and only elicited information about migration and employment status of the individual, together with migration attitudes.<sup>11</sup> Fourth, we conducted a school surveys where we asked classmates and schoolmates about migration and class attendance status of those who were absent. If they did not have any information, we investigated the reason for absence with the school administration. Using these various sources, we construct the variable *Out of Guinea*, an indicator taking value 1 if the respondent has been outside Guinea since at least 30 days prior to the survey.

**Visa.** During phone surveys with students and their contacts, we elicit information on whether the students who are out of Guinea have asked or are planning to ask for a visa in the country they are currently in or in their final destination. We use these questions to construct two additional migration variables, *Migration with Visa* and *Migration without Visa*. The latter variable identifies students who are outside Guinea at the time of the survey but have not requested a visa for the place where they currently are, nor plan to request it for their final destination. The former variable identifies migrants who currently hold a visa or are planning to apply for one.

**Wealth.** In the baseline survey we also collected data on household’s wealth. In particular, we use two proxies for wealth. The first is an index of durable goods ownership constructed as the first principal components from a series of durables owned by the respondent’s household at baseline.<sup>12</sup> The second proxy is an indicator for whether the student or his/her family have a

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that his/her consumption (rent, food, transport, etc.) remain the same.’

<sup>10</sup>We explore both the intersection and the union of the two categories and find that the results do not change. We also find that results are robust to different specifications of underestimation/overestimation requiring one or three optimistic assessments out of three, instead of two out of three (results are available upon request).

<sup>11</sup>We tried to reach the same student and her contacts (if not found) for 4 days on the phone. We stopped at the end of the time limit or when we were able to reach the student.

<sup>12</sup>Durables include radio, television, mobile phone, watch, car, bike, motorbike, refrigerator, fan, and air con-

bank account.

**Information about the schools in the sample.** We finally assembled administrative data from the Ministry of Education on the characteristics of the schools in the sample. In particular, we gathered data on fees, number of female and male students, number of students repeating a year, number of transfer students who started secondary school in other establishments, number of female and male teachers, number of teachers with a master’s degree, number of administrative staff and number of classes. We also have information on the number of classrooms, their surface, the material of doors and roofs, the number of toilets, televisions, computers, printers, photocopiers, the presence of a library, infirmary, internet connection, drinking water and separate toilets for male and female students. We include these variables in an index of school infrastructure constructed through principal component analysis.

## 4 Empirical Strategy

The empirical analysis is divided into two main parts. In the first part we analyze the impact of our treatments on beliefs and intention related to migration. In the second part, we test the effect of the treatments on students’ probability to migrate.

### 4.1 Beliefs and migration intentions

We assess the impact of our treatments on beliefs and intentions to migrate using the following specification:

$$y_{1,i,j} = \alpha_0 + \alpha_1 T1_j + \alpha_2 T2_j + \alpha_3 T3_j + \rho y_{0,i} + \alpha_X X_{0,i} + \alpha_W W_{0,j} + \varepsilon_{i,j} \quad (1)$$

where  $y_{1,i}$  is our outcome of interest for student  $i$  of school  $j$ , at the first follow-up;  $T1$  is equal to one if the school  $j$  has been allocated to the risk treatment,  $T2$  is equal to one if the school  $j$  has been allocated to the economic treatment and  $T3$  indicates the allocation to the double treatment. The vector  $X_{0,i}$  includes individual controls: gender, grade, indicators for parents being alive, parents having completed education, the number of brothers and sisters; the vector  $W_{0,s(i)}$  contains school controls: an indicator for above-median school fees, the ratio of female students in the *Lycée*, and student/teacher and student/class ratios, and a dummy indicating if individual  $i$ ’s school,  $j$ , has an above-median number of students—our stratification dummy. We only stratified over school size, splitting schools into two categories: above median and below median. We estimate an ANCOVA model, including the lagged dependent variable  $y_{0,i}$ . We cluster standard errors at the school level, the unit of randomization.

We measure beliefs using individual variables and aggregate indexes.<sup>13</sup> We construct two indexes using principal component analysis, one for expectations about economic outcomes, *PCA Econ Perceptions Index*, and the other for expectations about risk outcomes, *PCA Risk Perceptions Index*. As a robustness test, we also construct alternative indexes using the procedure in Kling

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ditioning.

<sup>13</sup>Using indexes partially solves problems associated with testing multiple hypotheses and it augments the power of our tests by reducing random variation in individual variables.

et al. (2007). We construct the indexes ‘Kling Econ Perceptions’ and ‘Kling Risk Perceptions’ (about the Libyan-Italian and Moroccan-Spanish route, separately) by summing the z-scores for all variables in the respective category. The z-scores for economic perceptions enter the respective summation with a negative sign and those for risk perceptions enter the summation with a positive sign; so, a higher index represents more pessimistic beliefs.<sup>14</sup> Also, to deal with multiple hypothesis testing, we adjust the p-values according to the free step-down re-sampling method Westfall et al. (1993), controlling the family-wise error rate (FWER).

After investigating impact of the treatment on beliefs, we estimate its impact on migration intentions, ‘Wishing to migrate,’ ‘Planning to migrate,’ and ‘Preparing to migrate,’ measured at the first follow up. We use the specification in equation 1, again controlling for the outcome measured at baseline  $y_{0,i}$  to mitigate challenges posed by attrition.

## 4.2 Migration status

We next test the effect of our intervention on migration choices, estimating:

$$y_{2,i,j} = \beta_0 + \beta_1 T1_j + \beta_2 T2_j + \beta_3 T3_j + \beta_X X_{0,i} + \beta_W W_{0,j} + \nu_{i,j} \quad (2)$$

and clustering  $\nu_i$  at the school level.

Since 24% of students interviewed at baseline did not participate to the information sessions, in all the main tables we separately show Intention-To-Treat (ITT) effect and IV estimates using the random allocation as instrument for attendance to the session. In the 160 schools involved in the RCT, 7,374 students were interviewed during the baseline survey. We could collect the treatment attendance status for all except for 70 students (less than 1% of the sample). Our analysis focuses on the sample of respondents for whom we have attendance data.

## 5 Descriptive Statistics

### 5.1 Balance and Attrition

[Insert Table 1 here]

In Table 1 we report balance checks of the main socioeconomic characteristics, as well as beliefs and migrations intentions at baseline for the students in our sample for whom we have attendance data on the information session. Panel A reports balance on important demographic characteristics of the respondents: their gender, the class they are in, wealth measured by durables ownership and education and working status of the parents. In column 1 we show the mean and the standard deviation in the control group. Female students compose roughly half

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<sup>14</sup>As a robustness check, we construct an alternative ‘Kling Risk Perceptions’ index where the z-score for journey cost enters with a positive sign to account for the possibility that a higher price might represent higher journey amenities.

the sample, and a higher fraction of students in sample is in the 12<sup>th</sup> and 13<sup>th</sup> grades. Only 35% of mothers and 54% of fathers had a job in the last 12 months. As for education, 40% of fathers and 58% of mothers did not go to school, 8.5% and 12.6% have only completed primary education, and 45% and 26.2% have completed secondary education or higher. These figures track very closely the distribution of education levels in the urban areas of Guinea reported in the last census (RGPH, 2017). Looking at Panel B, we found that 30% of students declare they wish to migrate, 19% plan to and 5% claim they made some preparation to migrate. Columns 2, 3, 4 report the differences in means between the control group and the risk, the economic and the double treatments, respectively, together with the standard errors. Overall, students' characteristics and students' outcomes are well balanced across treatment arms. As shown in Appendix Table A1, extending the analysis to the students for whom we do not have attendance data does not affect balance in any way.

In Appendix Table A2, we report balance checks on an additional set of demographic characteristics and on media consumption. Variables are well balanced across treatment arms except for the fraction of respondents' mothers who completed secondary education. This small imbalance is consistent with random chance, given the number of treatment arms and tests performed in the balance table. Indeed, we find no significant difference in the fraction of mothers having completed other levels of education, or any education in general.

Furthermore, in Appendix Table A3, we look separately at beliefs about economic returns of migration and risk of migration for Italy or Spain; we did not find any relevant difference across treatment arms, except for a marginally significant imbalance on expected duration of the journey for the double treatment on the Italian route (but not on the Spanish one). In Appendix Table A4, we also show that schools in different treatment arms are not systematically different across any particular dimension.

Appendix Table A5 summarizes the study sample and attrition. Out of 7,374 students interviewed in person at baseline, we managed to recontact 61% of them during the 1<sup>st</sup> follow up and 32% at 2<sup>nd</sup> follow up. The high attrition rate emerging from in-person surveys at the 2<sup>nd</sup> follow up reflects the absence of students in class and a potential high migration rate. However, when exploiting our variety of survey methodologies (i.e. phone survey with the respondent, phone survey with the respondent's contacts and school survey) we retrieve migration information for 99.6% of students.

Finally, Appendix Table A6 reports attrition by treatment arms and by type of survey methodology. We rank survey methodologies, based on their potential reliability of information, as follows: in person survey with the respondent, phone survey with the respondent, phone survey with the respondents' contacts, and school survey. For each survey methodology implemented, we define a student as attrited for a given survey if (i) the respondent did not complete the survey and (ii) we did not complete a survey with a higher informative content. For instance, a student is considered to be attrited in the phone survey with contacts if we were neither able to complete that survey, nor did we complete an in-person or a phone survey with the subject. Attrition is slightly higher in the risk treatment for in person interview in the first follow up (columns 1 and 2) compared to the control group. However, this imbalance disappears when looking at the sample of students interviewed with other survey methodologies (columns 3-5). In our empirical analysis, we control for outcomes at baseline when looking at beliefs and migration

attitudes, to deal with any potential correlation between attrition and treatments.

## 5.2 Migration intentions and migration’s decision

At the baseline survey, 30% of students said they ‘wished’ to migrate if it were possible, 19% said they were ‘planning’ to migrate in the next 12 months, and 5% said they had made one or more ‘preparation’ for migrating—e.g., saving money or contacting someone abroad to obtain information. Data collected during the 2<sup>nd</sup> follow-up survey—one year after the baseline and approximately one year after the treatment—shows that 1.6% of students in the control group had migrated internationally. To grasp how representative is our sample compared to the Guinean population, it is important to compare our data with official statistics related to migration outcomes in the country. Unfortunately, reliable and official data on migration status is not available for Guinea. However, the [Afrobarometer \(2019\)](#) elicited information on migration intentions for a sample of the Guinean population designed to be representative of the voting age population, in 2017. The [Afrobarometer \(2019\)](#) survey asks basically the same questions relating to migration planning and preparation as we do. In [Table A7](#), we compare figures on migration intentions reported by the students in our sample (first row) with intentions reported in the Afrobarometer data, focusing on individuals between 18-21 years old, our reference category.<sup>15</sup> The second and third rows report migration intentions for the whole Guinean sample while the last two rows report migration intentions only for individuals living in Conakry. Reassuringly, the fraction of individuals who declare they are preparing for migration in our sample (5%) is very close to corresponding figures in the Afrobarometer (3% and 4% among Guinean and Conakry’s youths, respectively). As for the fraction of respondents who are planning to migrate, the incidence in our sample (20%) is very close to the corresponding figures in the Afrobarometer (19% in the overall Guinean population and 25% in the Guinean young population). It is smaller than the 54% observed among Conakry’s youths in the Afrobarometer. However, in this case the 28-person sample of the Afrobarometer is too small to make for a meaningful comparison.

Consistently with the high number of students who intend to migrate, in [Table A8](#) we report some descriptive statistics showing that our sample is relatively familiar with the experiences of migration: 38% of students has a classmate who migrated and 60% have at least a contact abroad. Students talk about migration with peers and with contacts abroad: 41% discussed about migration with friends or siblings in the week prior to the baseline survey, 32% talk about economic outcomes outside Guinea with their contacts living abroad, and 34% discuss with them about the risk faced during the journey. Then, it is not surprising that almost everyone in the sample has heard about irregular migration through Libya and Italy (92%) and through Morocco and Spain (88%). Nonetheless, students seem to be misinformed about key dimensions. In the baseline survey we asked the sample to answer basic questions about irregular migrants’ rights in Italy, obtaining an easy to interpret measure of their perceived chances abroad.<sup>16</sup> Answers highlight several misconceptions. A fraction of 44% of students wrongly believe that asylum-seekers are not allowed to work in Italy; 34% think that poverty alone gives right to

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<sup>15</sup>The population in our sample is slightly younger, but we use this age bracket as in the Afrobarometer samples Guineans are above the age of 18.

<sup>16</sup>We focused on Italy as a destination country because of its high popularity as country of arrival to Europe for irregular migrants from Guinea, in the year prior the treatment.

asylum; 67% of students thinks that Italy has *ius soli* in place, namely the right to citizenship by birth. However, only 15% and 13% wrongly believe, respectively, that asylum-seekers cannot be deported to the European country of first arrival to Europe, and that Italian citizenship cannot be obtained marrying an Italian partner.

## 6 Results

In this section, we first investigate the impact of our treatments on beliefs related to the risk of migration from Africa to Europe through the two possible routes (the Italy-Libya route and the Morocco-Spain route) and on the beliefs of potential economic outcomes in Europe. Second, we analyze the effect of the interventions on international migration and show that the effect of the treatments is likely to be driven by irregular, risky migration, and concentrated among the least wealthy students. Third, we show that the treatments influenced migration choice through an information update. Finally, we show that impacts on migration intentions are broadly consistent with the impacts on actual migration.

### 6.1 Beliefs at the first follow up

#### 6.1.1 Beliefs on the risk of migration

[Insert Table 2 here]

In Table 2, we report the impact of our treatments on perceptions related to risk of migration at the first follow up, averaging beliefs over the two possible routes of migration (Italian and Spanish route). Panel A shows the impact of the treatment by pooling together students allocated in all the 3 treatment arms while Panel B reports the impact separately by treatment arms. We first investigate the impact of the treatments on the outcomes for which we provide hard data information during the information sessions (length of the journey, probability of being beaten and probability of being forced to work/exploitation) and second we look at beliefs related to additional variables not emphasized during the information sessions.

Being treated has a positive effect on expected journey duration (column 1) and a negative effect on expected journey cost (column 4), mostly coming from T2 and T3 (we comment on this below). In both cases, the magnitude is around 20% and both coefficients are statistically significant at 1 and 10 percent level respectively, according to FWER p-values. Being treated also positively affects all the other beliefs related to the risk of migrating (column 2-3 and 5-8): the probability of being ‘Beaten’ along the route, of being ‘Forced to work’, of being ‘Kidnapped’, of ‘Dying before the trip by boat’, of ‘Dying during the trip by boat’ and of being ‘Sent back’ to the country of origin. Treatment effects range between 6 and 9 percentage points, compared to average beliefs ranging between 37% for the probability of being sent back and 50% for the probability of being beaten. Not surprisingly, the coefficient on ‘Any treatment’ has also a positive effect and statistically significant impact on the PCA index aggregating all the previous risk perceptions (column 9).

Panel B of Table 2 reports the results dividing the effect by treatment type. Again, we start

by looking at the perceptions related to journey duration and journey costs. The risk treatment (T1) and the double treatment (T3) have a positive and significant effect on the perceived duration, between 9% and 29%, while the impact of the economic treatment is closer to zero and not significantly different from the control group according to FWER p-values (column 1). According to FWER p-values, no treatment has any effect on the expected journey cost (column 4), although T2 and T3 have a significant and negative effect with ordinary p-values. The effects of our information on this variable was a priori ambiguous. On the one hand, a longer perceived journey duration would result in a higher cost of the journey. On the other hand two mechanism might have reduced perceived cost. First, lower perceived amenities (risk information) would reduce crossings' competitive prices. Second, worse economic outcomes abroad (economic information) would reduce the potential to repay informal debts and exacerbate liquidity constraints. The second explanation is more appealing since the negative effect is concentrated on T2 and T3. Looking at columns 3-8, the effect of our treatments is positive and statistically significant for variables relating to hard information provided during the information sessions such as the probability of being 'Beaten' (column 2), 'Forced to work' (column 3), and 'Kidnapped' (column 5) but also for other outcomes such as the probability of death, both before taking the boat to cross the Mediterranean Sea or during the trip by boat (columns 6 and 7). For other dependent variables not emphasized in the information session, such as the probability of being sent back to the country of origin, students might have revised their expectations upwards due to perceived correlation with outcomes mentioned in the information session. For all of these variables, accounting for FWER p-values does not affect significance.

All treatments have a positive and statistically significant effect on the PCA index of risk perceptions (column 9). These results are robust when looking at the *Kling Risk Perceptions Index* in Appendix Table A9, capturing undesirability of the journey outcomes.

Surprisingly, the economic treatment (T2), too, significantly and positively influences all of the probabilistic beliefs related to the risk of journey. We have two potential explanations for this result. First, treated students, by receiving bad news related to the economic situation in the destination countries, might internalize a pessimistic mood that can influence perceptions related to the risk of journey as well. Second, given that most potential migrants borrow money from their families to travel, they might realize, after the information session on the economic conditions in the destination countries, that they cannot pay back the money and so that they have to travel in hard circumstances lowering the cost of the journey. However, in the last rows of Table 2 we take a closer look at the magnitude of the impact across treatments. We report t-tests for the equality of the coefficients across different treatments; it is reassuring to observe that the risk treatment (T1) and the double treatment (T3) have a significantly larger impact on the PCA risk index than the economic treatment (T2). This is also true for the impacts on most of the single outcomes. The double treatment (T3) has a large impact for all of the previous dependent variables plus the probability of 'Being kidnapped.'

Overall, these results suggest that (i) our treatments were effective at changing students' perceptions about the dangers of irregular migration and (ii) information about economic outcomes affects the assessment of journey risk. Such spillovers may be due to increased information acquisition in response to the treatments, increased pessimistic attitudes, or to the perception



that migrants interviewed in Italy are liquidity constrained, and then at risk of trafficking.<sup>17</sup> Nonetheless, (iii) treatments with information content relating to migration have a larger impact on perceptions.

### 6.1.2 Beliefs on the economic returns to migration

In this section we examine the effect of our intervention on beliefs about a set of potential economic outcomes in the destination countries at the first follow up.

[Insert Table 3 here]

Table 3 shows that the information sessions (T1, T2 and T3) pushed students to update negatively their beliefs about economic opportunity abroad: the effect is almost always negative but the size of coefficients and significance levels vary with the treatment type. Panel A reports the effect of being treated, by pooling together all treatment types, on beliefs about economic opportunities abroad. Based on FWER p-values, being treated has a statistically significant negative impact on all the probability assessments related to positive economic outcomes of migration (columns 1 and 3-7): the probability of ‘Finding a job,’ of ‘Continuing studies,’ of ‘Receiving asylum,’ of ‘Becoming citizen of the destination country,’ of ‘Not returning before 5 years,’ and of ‘Getting public transfers.’ Effects range between 3 percentage points when using as outcome the probability of ‘not having returned after 5 years’ (column 6) and 7 percentage points when considering the probability of ‘finding a job’ (column 1). The effect on the expected percentage of population in favor of migration (‘Host countries attitude’) is negative but not statistically significant according to FWER p-values (column 9), while the effect on expected wage and living cost are negative but not significant even for non-adjusted p-values (column 2 and 8). Not surprisingly, being treated has a negative impact on a PCA index aggregating economic beliefs (column 10).

In Panel B, we look at the effect of each treatment separately. The risk treatment has the weakest effect: looking at the FWER adjusted p-values, it statistically significantly influences, at 10 percent level, the beliefs over the probability of finding a job (column 1) and the probability of becoming a citizen in the destination country (column 5). However, these two effects are not negligible in magnitude, decreasing the probability of positive outcomes by around 5 percentage points, compared to averages at baseline of 39% and 35%, respectively.

The economic treatment has a statistically significant effect on a higher number of probabilistic outcomes. Looking at the FWER adjusted p-values, students in T2 are less likely to think that they will find a job (column 1), they will obtain asylum (column 4), they will become citizens of the destination countries (column 5), they will return home before 5 years after arrival (column 6), they will get financial help from the government (column 7), with impacts ranging between minus 8 and minus 4 percentage points. The strongest effect is on the perceived probability of finding a job, which was included in the treatment hard information section, alongside with the probability of obtaining asylum and of continuing studies.

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<sup>17</sup>The probability of being ‘sent back’ (column 8 in Table 2) should reasonably respond to information on economic outcomes if students think that integration in the labor market is a pre-condition to regularizing their migration status.

For probability outcomes, the coefficients on the double treatment (T3) are higher in magnitude than the coefficients on T1 and T2 in most cases and the effect, when significant, ranges between minus 10 and minus 7 percentage points. Different from T1 and T2, the double treatment has also a negative effect of around 4 percentage points on the beliefs on the percentage of people in favor of migration in the destination country (column 8). For all the treatments, the effect on the perceived wages in the destination countries is negative but not statistically significant. All treatments have a significant positive impact on the PCA aggregate index of economic beliefs (column 10). Once again, we check that these findings are robust when using the *Kling Econ perceptions* index in Appendix Table A9 that captures a positive view about outcomes abroad. At the bottom of Table 3, we show the t-test for the equality of the coefficients across treatment arms. The economic treatment has a larger impact than the risk one for the probability of ‘Finding a job,’ of not having ‘Returned after 5 years’ and of ‘Getting asylum.’ The double treatment has a higher impact than the risk treatment for the probability of ‘Finding a job,’ of ‘Getting public transfers’ and of ‘Getting asylum.’

To sum up, students participating to the information sessions revised negatively their beliefs related to positive potential returns to migration. They update their beliefs both on the variables which are stressed during the information session and those which are not, consistent with the idea that students see economic outcomes as correlated. Also, there is some evidence of spillovers from the risk treatment to economic perceptions, which might be explained as the spillovers of economic information on risk perceptions: increased information acquisition, or inference of how liquidity constrained migrants are. Nonetheless, the impact is stronger for treatments including information about economic outcomes.

## 6.2 Migration intentions

We next test whether the treatments affected migration intentions elicited at the first follow up, approximately one month after the information sessions. Appendix Table A11 shows the effect of the treatment on the following outcomes: ‘Wishing to migrate’ in columns 1-3, ‘Planning to migrate’ in columns 4-6, and ‘Preparing to migrate’ in columns 7-9. For each group of three columns, we progressively introduce individual and family controls. Given that attrition is not perfectly balanced across treatment arms, we control for migration intentions at baseline in every specification. In Panel A, we show the impact of the treatment by pooling together all treatment types. The impact is negative across specifications, but it is statistically significant only for the variable ‘Wishing’ (columns 1-3) and ‘Planning’ to migrate (columns 4-6), suggesting that the treatment information was not enough to affect migration preparations after only one month. Being treated reduces the probability of wishing to migrate by 5 percentage points and the probability of planning to migrate by 3 percentage points, compared to 30% and 17% of students reporting the wish or plan to migrate in the control group, respectively. In Panel B, we separately look at the effect of the treatments on migration intentions. The coefficients are all negative across outcomes and specifications. The effect on ‘Wishing to Migrate’ is significantly different from 0 for all treatments, and around 5 percentage points. As for the ‘Planning to Migrate’ variable only Risk (T1) and double treatment (T3) are statistically significant and the magnitude of the effect is around 3 percentage points, consistently with the lack of effect

of economic information on migration outcomes. The level of significance of the coefficients decreases from ‘Wishing’ to ‘Prepare,’ with outcomes becoming increasingly rare at the same time - 4.2% say they prepare to migrate at baseline. Despite the higher magnitude of the risk treatment’s impact, especially for ‘Wishing to migrate,’ Wald tests reported at the end of the table do not highlight any significant difference between the impacts of different treatments.

### 6.3 Treatment effect on migration decisions

[Insert Table 4 here]

Table 4 reports the effects of our intervention on the probability to migrate from Guinea, measured using the complete set of data collections implemented for this project, as described in section 3. Recall that our dependent variable, *Out of Guinea*, is an indicator taking value 1 if the respondent has been outside Guinea since at least 30 days prior to the survey. Since 24% of students assigned to the information sessions did not attend them, we separately report Intention-To-Treat (columns 1-3) and IV estimates (columns 4-6), where attendance to the information sessions has been instrumented with the treatment assignment.

For each estimation method, we progressively include individual and school controls. In Panel A, we show the effects by pooling all treatments together. The effect is not significantly different from zero in any specification. However, when splitting the analysis across different treatments (Panel B) we find that students assigned to the risk treatment have a lower probability to migrate from Guinea. The magnitude of the effect is not negligible: in our most complete specification (column 3), T1 decreases the dependent variable by 0.8 percentage points equal to about half of migration in our sample and the coefficient is statistically significant at 5% level. The corresponding IV coefficients in column 6 remains statistically significant at 5% level and close in magnitude to the OLS estimates. Adding controls to the specification does not influence neither the magnitude nor the significance of the coefficients of interest. Instead, we do not find any statistically significant effect of the economic or the double treatments. According to Wald test reported at the bottom of the table the impact of the risk treatment (T1) is significantly higher than the impact of the economic (T2) and the double treatment (T3). This suggests that the information on the risk of migration matters more to reduce irregular migration compared to information related to economic outcomes in the destination countries.

It is useful to compare the effect we find to other effects in the literature. [Shrestha \(2017\)](#) show that Nepali potential migrants to Gulf countries respond to risk information (about dying on the job abroad) by increasing migration and [\(Bah et al., 2018\)](#) show that giving information about the risk of irregular migration reduces migration intentions of Gambian potential migrants. In both cases, migrants overestimate risk on the variables that were included in the information intervention. As we show in the next session, students at baseline were optimistic, on average, on the risk variables we included in the intervention. The effect of the risk treatment was driven precisely by students who were underestimating the risk of migration.

To shed light on whether our effect is driven by irregular, risky migration, we replicate the previous analysis but separating estimates for ‘migration without visa’ and ‘migration with visa’. We define migration without visa as instances of migration in which students who migrated at

2<sup>nd</sup> follow up reported not to have requested a visa for the country they are currently in, nor plan to request it for their final destination. The risk treatment reduces migration without visa by 0.5 and 0.7 percentage points in both the ITT and IV estimations, respectively, and the coefficients are statistically significant at a 5% level. No treatment is statistically significant for migration with visa, and the coefficients on the risk treatment are an order of magnitude smaller than the ones for migration with visa.

#### 6.4 Heterogeneity by beliefs at the baseline survey

[Insert Table 5 here]

Since our treatments consist of providing information about migration, their effect should depend on migrants' beliefs before treatment. To test for whether migrants with different beliefs about migration react differently to the information sessions, in Table 5, we show heterogeneous treatment effects by interacting treatment dummies with a dummy reporting if migrants received a 'negative surprise' by the information we provided with hard data during the sessions. We define respondents in the T1 (risk treatment) as 'optimistic' the risk of journey if they have a lower assessment than the information we gave them for at least two of the three benchmark risk variables: probability of being beaten, probability of being exploited, and length of the journey (in months) for the Libyan-Italian route. As for T2, we define as optimistic the students whose probability beliefs are higher than those given for the probability of finding a job, continuing studies, or obtaining asylum if requested. For the double treatment, respondents are defined as optimistic if they are underestimating the probabilities of undesirable outcomes of the journey or if they are overestimating the probabilities of desirable economic outcomes in destination countries.

Figure B6, in the Appendix, shows the fraction of students with optimistic and pessimistic assessments compared to the information given during the treatment, for the outcomes dealt with by hard data. A large fraction of students had a lower assessment of risk than the information given, for all of the outcomes; instead, fewer students received negative surprises through the economic treatment. Indeed, 82% of students are coded as optimistic in the risk treatment while 56% are in the economic treatment. The fraction of optimistic in the double treatment is 92%.

In Table 5, we augment our main equation with the interactions between treatments and optimistic beliefs, that is the interactions between T1 and a dummy indicating students that underestimate the risk of journey and between T2 and a dummy for students overestimating the economic benefits of migration. T3 is interacted with individuals who had optimistic beliefs for the risk or for the economic beliefs. The t-test reported at the end of table 5 shows that the risk treatment is negative and statistically significant only for students with optimistic beliefs at baseline, consistent with the information update channel. In Table A10, we estimate a similar model, but defining optimistic respondents in the double treatment those who had optimistic beliefs for both risk or economic beliefs—resulting in 47% coded as optimistic. Results do not change.

## 6.5 Heterogeneity by wealth

[Insert Table 6 here]

[Insert Table 7 here]

In Table 7 we provide evidence that the effect is concentrated among students with low socioeconomic status. The first two columns measure students' socioeconomic status with a dummy reporting an index of durable goods larger than average. The second measure of socioeconomic status is bank account ownership by the student's household. Columns (1) and (2) report ITT estimates and columns (3) and (4) report IV estimates. For the durables index, the risk treatment is only negative and significant, at the 1% level, for the base coefficient. So, the information session affected migration only among students who had less ability to invest in safety during the journey or migrate regularly. Interaction coefficients are positive, and also statistically significant in the case of T1 and T2. Results are remarkably similar when we use bank account as a measure of socioeconomic status. In this case, only the base coefficient for risk is significant (and negative) while none of the linear combinations of base and interacted coefficient is.

## 7 Conclusions

Potential migrants often lack relevant information when deciding whether to leave their country. In the case of irregular migration from Africa to Europe, this information can be related to the risks of violence and/or death during the journey, as well as to the scarce prospects of integration in the European labor market. In this paper, we design a randomized experiment to test the impact of information provision about the risk of the journey and the economic return to migration among a sample of secondary school students close to graduation. We find that such information influences their migration intentions one month after the intervention. However, only providing information regarding the risk of the journey reduce their actual migration choices. The impact is consistent with students avoiding irregular, risky migration. Our results have relevant policy implications, suggesting the viability of low cost, scalable approaches to mitigating information asymmetries and reducing the human and economic costs associated with irregular migration.

In on-going work, we are collecting data to improve our understanding of the migration experiences of students in our sample. For the subset of students who left Guinea, we will conduct a follow-up on current location and past migration experience (including transit countries). Doing so, we aim to (i) better distinguish regional migration outcomes versus intercontinental irregular migration, and (ii) elicit the route followed by students who tried to reach Europe.

Further, given the rich amount of data that we collected during our baseline survey, we are exploring treatment heterogeneity by exploiting the last advancements of Machine Learning (ML) applied to RCTs. In particular, we are interested in disentangling the determinants of effect heterogeneity given by pre-treatment wealth, beliefs, intentions to migrate, and contacts abroad. All of these variables could clarify how our treatments affected migration, but they are difficult to consider together because of (i) the high-dimensionality they induce and (ii) their correlation. Machine learning techniques allow analyzing their role without incurring in these two problems.

Table 1: Balance table: individual characteristics and outcomes

Variable	(1) Control Mean	(2) Risk-Control	(3) Econ-Control	(4) Double-Control
<i>Panel A: Socio-economic characteristics</i>				
Female	0.484 (0.500)	0.010 (0.022)	-0.009 (0.022)	-0.001 (0.020)
Student in 12 <sup>th</sup> grade	0.250 (0.433)	0.019 (0.027)	0.020 (0.029)	0.025 (0.032)
Student in 13 <sup>th</sup> grade	0.369 (0.483)	0.008 (0.040)	-0.001 (0.039)	-0.002 (0.042)
Wealth index (PCA)	-0.006 (1.568)	-0.013 (0.107)	0.026 (0.093)	0.013 (0.098)
Mother worked in the last 12 months	0.346 (0.476)	-0.012 (0.024)	0.020 (0.022)	-0.007 (0.021)
Mother no education	0.579 (0.494)	-0.040 (0.033)	-0.016 (0.028)	-0.038 (0.028)
Mother completed primary school	0.126 (0.332)	-0.009 (0.011)	0.002 (0.011)	-0.009 (0.013)
Mother completed secondary school	0.180 (0.384)	0.040** (0.018)	0.022 (0.016)	0.050*** (0.018)
Mother completed higher education	0.082 (0.275)	0.002 (0.017)	-0.006 (0.014)	-0.013 (0.015)
Father worked in the last 12 months	0.537 (0.499)	-0.016 (0.024)	0.018 (0.025)	-0.009 (0.024)
Father no education	0.409 (0.492)	0.004 (0.032)	-0.025 (0.031)	-0.027 (0.028)
Father completed primary school	0.085 (0.279)	0.002 (0.010)	-0.002 (0.010)	0.002 (0.010)
Father completed secondary school	0.195 (0.396)	0.003 (0.015)	0.009 (0.014)	0.013 (0.014)
Father completed higher education	0.260 (0.439)	-0.011 (0.030)	0.024 (0.026)	0.009 (0.024)
<i>Panel B: Migration intentions and beliefs</i>				
Wishing to migrate	0.299 (0.458)	-0.007 (0.023)	-0.002 (0.024)	0.010 (0.026)
Planning to migrate	0.192 (0.394)	0.009 (0.021)	0.007 (0.020)	0.024 (0.023)
Preparing to migrate	0.051 (0.220)	0.002 (0.010)	0.005 (0.010)	0.005 (0.010)
Risk beliefs index for Italy (PCA)	-0.003 (1.819)	-0.019 (0.081)	0.033 (0.091)	-0.039 (0.095)
Risk beliefs index for Spain (PCA)	0.010 (1.938)	-0.073 (0.080)	0.016 (0.090)	-0.020 (0.092)
Economic beliefs (PCA)	0.050 (1.731)	-0.067 (0.090)	-0.098 (0.091)	-0.022 (0.100)
Observations	1,803	3,651	3,704	3,555

**Note:** Durables index based on the PCA first component of the ownership of a list of durable items: radio, television, mobile, watch, car, motorbike, bike, refrigerator, fan, air conditioner. Risk beliefs PCA index includes: duration of journey in inverse hyperbolic sine (IHS) of months (winsorized at 5<sup>th</sup> perc.), journey cost in IHS of euros (winsorized at 5<sup>th</sup> perc.), probability of being beaten, probability of being forced to work, probability of being kidnapped, probability of dying before travel by boat, probability of dying during travel by boat, probability of being sent back. Economic beliefs PCA includes: probability of finding job, probability of continuing studies, probability of becoming a citizen, probability of having returned after 5 years, probability that govt at destination gives financial help, probability of getting asylum, if requested, percentage in favor of migration at destination, expected wage at destination in IHS of euros (winsorized at 5<sup>th</sup> perc.), expected living cost at destination in IHS of euros (winsorized at 5<sup>th</sup> perc.). Standard errors (in parentheses) are clustered at school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 2: Impact on risk perceptions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Journey Duration	Being Beaten	Forced to Work	Journey Cost	Being Kidnap- ped	Death before boat	Death in boat	Sent Back	PCA Risk Index
<i>Panel (a)</i>									
Any treatment	0.19*** (0.038) [0.00]	8.41*** (0.90) [0.00]	6.02*** (0.96) [0.00]	-0.21* (0.12) [0.09]	8.33*** (0.92) [0.00]	8.45*** (1.06) [0.00]	8.60*** (0.95) [0.00]	7.87*** (0.91) [0.00]	0.68*** (0.067)
<i>Panel (b)</i>									
T1 - Risk	0.29*** (0.042) [0.00]	9.05*** (1.19) [0.00]	6.47*** (1.30) [0.00]	0.0022 (0.14) [0.99]	8.30*** (1.26) [0.00]	9.39*** (1.33) [0.00]	9.70*** (1.26) [0.00]	6.46*** (1.20) [0.00]	0.71*** (0.091)
T2 - Econ	0.086** (0.039) [0.12]	6.21*** (1.11) [0.00]	4.91*** (1.13) [0.00]	-0.30** (0.14) [0.12]	6.11*** (1.16) [0.00]	5.99*** (1.25) [0.00]	5.54*** (1.16) [0.00]	8.19*** (1.26) [0.00]	0.53*** (0.079)
T3 - Double	0.20*** (0.053) [0.01]	10.3*** (1.47) [0.00]	6.80*** (1.51) [0.00]	-0.34* (0.19) [0.15]	11.0*** (1.39) [0.00]	10.2*** (1.45) [0.00]	11.0*** (1.43) [0.00]	9.15*** (1.22) [0.00]	0.84*** (0.10)
<i>H0: T1 = T2 (p-value)</i>	0.00	0.04	0.25	0.05	0.13	0.01	0.00	0.23	0.07
<i>H0: T1 = T3 (p-value)</i>	0.11	0.48	0.85	0.09	0.11	0.59	0.46	0.06	0.31
<i>H0: T2 = T3 (p-value)</i>	0.01	0.01	0.23	0.81	0.00	0.00	0.00	0.51	0.01
<i>N</i>	4428	4421	4423	4381	4422	4423	4420	4420	4368
Mean dep. var. control	2.19	49.7	49.9	15.9	45.3	36.2	40.7	37.2	-0.25

**Note:** Outcomes are risk beliefs averaged over the Italian route and the Spanish route measured one month after the intervention. They include the (1) duration of journey in inverse hyperbolic sine of months (winsorized at 5<sup>th</sup> perc.), (2) probability of being beaten, (3) probability of being forced to work, (4) journey cost in inverse hyperbolic sine of euros (winsorized at 5<sup>th</sup> perc.), (5) probability of being kidnapped, (6) probability of dying before travel by boat, (7) probability of dying during travel by boat, (8) probability of being sent back, and a (9) PCA aggregator for risk perceptions. All columns include individual controls,–gender, grade, location of birth, indicators for parents being alive, having completed any education, the number of brothers and sisters–school controls,–an indicator for above-median school fees the ratio of female students in the *Lycée*, students-per-teacher and students-per-classes ratio–and a stratification dummy, taking value 1 if the school has above-median students. Standard errors (in parentheses) are clustered at school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . FWER p-values Westfall et al. (1993) in square brackets.

Table 3: Impact on economic perceptions

	(1) Finding Job	(2) Wage abroad	(3) Contin. studies abroad	(4) Getting asylum	(5) Becom. Citizen	(6) Return before 5 yrs	(7) Getting public transf.	(8) Cost of living abroad	(9) Host country attit.	(10) PCA Econ Index
<i>Panel (a)</i>										
Any treatment	-7.71*** (1.23) [0.00]	-0.092 (0.086) [0.50]	-4.63*** (1.18) [0.00]	-6.39*** (1.28) [0.00]	-6.39*** (1.27) [0.00]	3.38*** (1.18) [0.03]	-5.51*** (1.40) [0.00]	-0.074 (0.075) [0.50]	-2.52** (1.23) [0.13]	-0.44*** (0.096)
<i>Panel (b)</i>										
T1 - Risk	-4.90*** (1.58) [0.06]	-0.093 (0.12) [0.84]	-3.00* (1.64) [0.51]	-3.33** (1.66) [0.41]	-5.31*** (1.63) [0.04]	2.22 (1.43) [0.69]	-4.15** (1.74) [0.23]	0.0020 (0.081) [0.99]	-1.95 (1.48) [0.70]	-0.30** (0.12)
T2 - Econ	-8.16*** (1.61) [0.00]	-0.015 (0.11) [0.99]	-3.98** (1.54) [0.15]	-7.05*** (1.49) [0.00]	-5.94*** (1.55) [0.01]	5.39*** (1.43) [0.01]	-4.84*** (1.70) [0.09]	-0.085 (0.094) [0.82]	-1.96 (1.53) [0.70]	-0.39*** (0.12)
T3 - Double	-10.5*** (1.49) [0.00]	-0.18 (0.12) [0.69]	-7.32*** (1.52) [0.00]	-9.20*** (1.60) [0.00]	-8.20*** (1.71) [0.00]	2.34 (1.68) [0.70]	-7.90*** (1.69) [0.00]	-0.15 (0.098) [0.69]	-3.86** (1.74) [0.30]	-0.65*** (0.13)
<i>H0: T1 = T2 (p-value)</i>	0.07	0.56	0.60	0.03	0.73	0.04	0.70	0.28	1.00	0.52
<i>H0: T1 = T3 (p-value)</i>	0.00	0.56	0.02	0.00	0.13	0.95	0.04	0.07	0.29	0.02
<i>H0: T2 = T3 (p-value)</i>	0.15	0.20	0.04	0.14	0.15	0.07	0.05	0.50	0.27	0.03
<i>N</i>	4411	4405	4404	4392	4404	4399	4394	4354	4366	4321
Mean dep. var. control	38.6	15.3	32.7	37.0	34.8	33.5	36.9	7.54	40.7	0.34

**Note:** Outcomes are measured one month after the intervention and they represent beliefs about (1) probability of finding a job, (2) expected wage at destination in inverse hyperbolic sine of euros (winsorized at 5<sup>th</sup> perc.), (3) probability of continuing studies, (4) probability of getting asylum, if requested, (5) probability of becoming a citizen, (6) probability of having returned after 5 years, (7) probability that of receiving public transfers at destination, (8) expected living cost at destination in inverse hyperbolic sine of euros (winsorized at 5<sup>th</sup> perc.), (9) perceived host country attitudes (percentage in favor of migration), and a (10) PCA aggregator for perceptions about economic outcomes. All columns include individual controls—gender, grade, location of birth, indicators for parents being alive, having completed any education, the number of brothers and sisters—school controls,—an indicator for above-median school fees the ratio of female students in the *Lycée*, students-per-teacher and students-per-classes ratio—and a stratification dummy, taking value 1 if the school has above-median students. Standard errors (in parentheses) are clustered at school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . FWER p-values Westfall et al. (1993) in square brackets.



Table 4: Impact on migration from Guinea

	y = migration from Guinea					
	(1)	(2)	(3)	(4)	(5)	(6)
	ITT	ITT	ITT	IV	IV	IV
<i>Panel (a)</i>						
Any treatment	-0.169 (0.364)	-0.177 (0.371)	-0.235 (0.352)	-0.311 (0.464)	-0.233 (0.486)	-0.311 (0.464)
<i>Panel (b)</i>						
T1 - Risk	-0.736* (0.399)	-0.759* (0.400)	-0.793** (0.392)	-0.954* (0.520)	-0.984* (0.519)	-1.027** (0.503)
T2 - Econ	0.242 (0.449)	0.231 (0.455)	0.133 (0.408)	0.329 (0.609)	0.315 (0.617)	0.177 (0.555)
T3 - Double	-0.0166 (0.458)	-0.00979 (0.459)	-0.0104 (0.449)	-0.0214 (0.588)	-0.0122 (0.588)	-0.0157 (0.583)
<i>H0: T1 = T2 (p-value)</i>	0.01	0.01	0.01	0.02	0.01	0.01
<i>H0: T1 = T3 (p-value)</i>	0.08	0.06	0.05	0.08	0.06	0.05
<i>H0: T2 = T3 (p-value)</i>	0.57	0.59	0.73	0.56	0.58	0.72
Individual controls	No	Yes	Yes	No	Yes	Yes
School controls	No	No	Yes	No	No	Yes
<i>N</i>	7273	7266	7266	7273	7266	7266
Mean dep. var. control	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%

**Note:** Impact of treatments on migration from Guinea at the 2<sup>nd</sup> follow-up, effect in percentage points. Columns (1)-(3) report ITT results, (4)-(6) report IV estimates where attendance to the information session is instrumented with assignment to treatment. Individual controls include gender, grade, location of birth, indicators for parents being alive, having completed any education, the number of brothers and sisters. School controls include an indicator for above-median school fees the ratio of female students in the *Lycée*, students-per-teacher and students-per-classes ratio. All specifications include a stratification dummy, taking value 1 if the school has above-median students. Standard errors (in parentheses) are clustered at school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 5: Migration from Guinea, heterogeneous effects by baseline beliefs

	y = migration from Guinea					
	(1) ITT	(2) ITT	(3) ITT	(4) IV	(5) IV	(6) IV
<i>T1</i> - Risk	-0.165 (0.974)	-0.209 (0.974)	-0.247 (0.942)	-0.204 (1.237)	-0.252 (1.236)	-0.287 (1.196)
<i>T2</i> - Econ	-0.186 (0.600)	-0.238 (0.604)	-0.328 (0.576)	-0.244 (0.788)	-0.308 (0.792)	-0.447 (0.758)
<i>T3</i> - Double	0.792 (1.384)	0.763 (1.391)	0.681 (1.403)	0.993 (1.685)	0.968 (1.692)	0.833 (1.709)
<i>T1</i> - Risk * Underestimates risk	-0.704 (0.957)	-0.687 (0.959)	-0.677 (0.956)	-1.306 (1.267)	-1.304 (1.266)	-1.293 (1.262)
<i>T2</i> - Econ * Overestimates econ	0.753 (0.717)	0.829 (0.730)	0.815 (0.728)	0.538 (1.041)	0.626 (1.064)	0.597 (1.055)
<i>T3</i> - Double * Und. risk or over. econ	-0.882 (1.332)	-0.850 (1.332)	-0.759 (1.337)	-1.475 (1.598)	-1.453 (1.599)	-1.339 (1.605)
Underestimates risk	-0.123 (0.510)	-0.129 (0.519)	-0.112 (0.517)	-0.115 (0.508)	-0.120 (0.515)	-0.0986 (0.514)
Overestimates econ	-0.311 (0.323)	-0.340 (0.317)	-0.293 (0.315)	-0.306 (0.320)	-0.334 (0.314)	-0.283 (0.312)
<i>H0</i> : <i>T1</i> + <i>T1</i> * Underestimates risk = 0	0.03002	0.02583	0.02295	0.00473	0.00356	0.00311
<i>H0</i> : <i>T2</i> + <i>T2</i> * Overestimates econ = 0	0.31153	0.30335	0.35420	0.71453	0.69866	0.84385
<i>H0</i> : <i>T3</i> + <i>T3</i> * Und. risk or over. econ = 0	0.84387	0.84862	0.86119	0.27890	0.27018	0.22959
Individual controls	No	Yes	Yes	No	Yes	Yes
School controls	No	No	Yes	No	No	Yes
<i>N</i>	7150	7150	7150	7150	7150	7150
Mean dep. var. control	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%

**Note:** Impact of treatments on migration from Guinea at the 2<sup>nd</sup> follow-up, effect in percentage points. The dummy ‘Underestimates risk’ equals 1 if the respondent’s baseline beliefs are lower than the amount announced in the treatment for at least two of the following variables: probability of being beaten, the probability of being exploited and the length of the journey for the Libyan-Italian route. The dummy ‘Overestimates econ,’ instead, equals 1 if the respondent’s baseline beliefs are lower than the amount announced in the treatment for at least two of the following variables: probability of finding a job, continuing studies, and obtaining asylum if requested. For the double treatment, the respondent is defined as optimistic if she is optimistic for risk beliefs or economic beliefs. The optimistic variable is not defined for the control group; instead, we saturate the model by separately including dummies for underestimating risk and overestimating economic benefits of migration. Columns (1)-(3) report ITT results, (4)-(6) report IV estimates where attendance to the information session is instrumented with assignment to treatment. Individual and school controls are specified in Table 4. All specifications include a stratification dummy, taking value 1 if the school has above-median students. Standard errors (in parentheses) are clustered at school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 6: Impact on risky and safe migration from Guinea

	y = migration from Guinea					
	(1)	(2)	(3)	(4)	(5)	(6)
	ITT	ITT	ITT	IV	IV	IV
<i>(a): Migration without visa</i>						
T1 - Risk	-0.555** (0.230)	-0.545** (0.236)	-0.574** (0.239)	-0.718** (0.299)	-0.705** (0.306)	-0.744** (0.307)
T2 - Econ	0.237 (0.349)	0.240 (0.352)	0.230 (0.337)	0.321 (0.472)	0.327 (0.474)	0.310 (0.455)
T3 - Double	0.0137 (0.320)	0.0308 (0.325)	0.0975 (0.315)	0.0177 (0.412)	0.0399 (0.416)	0.126 (0.408)
Individual controls	No	Yes	Yes	No	Yes	Yes
School controls	No	No	Yes	No	No	Yes
N	7244	7237	7237	7244	7237	7237
Mean dep. var. control	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%
<i>(b): Migration with visa</i>						
T1 - Risk	-0.0678 (0.207)	-0.0998 (0.203)	-0.103 (0.196)	-0.0878 (0.268)	-0.130 (0.263)	-0.133 (0.251)
T2 - Econ	-0.0780 (0.218)	-0.0951 (0.215)	-0.123 (0.206)	-0.106 (0.296)	-0.130 (0.291)	-0.169 (0.280)
T3 - Double	0.242 (0.268)	0.216 (0.265)	0.177 (0.255)	0.313 (0.344)	0.278 (0.339)	0.229 (0.330)
Individual controls	No	Yes	Yes	No	Yes	Yes
School controls	No	No	Yes	No	No	Yes
N	7244	7237	7237	7244	7237	7237
Mean dep. var. control	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%

**Note:** Impact of treatments on migration from Guinea at the 2<sup>nd</sup> follow-up, effect in percentage points. In columns Panel (a), the outcome is being outside Guinea at the 2<sup>nd</sup> follow-up and having entered or planning to enter the final destination planned without a visa. In Panel (b), the outcome is being outside Guinea at the 2<sup>nd</sup> follow-up and having entered or planning to enter the final destination with a visa. Columns (1)-(3) report ITT results, (4)-(6) report IV estimates where attendance to the information session is instrumented with assignment to treatment. Individual and school controls are specified in Table 4. All specifications include a stratification dummy, taking value 1 if the school has above-median students. Standard errors (in parentheses) are clustered at school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 7: Impact on migration from Guinea, heterogenous effects by socioeconomic status

	y = migration from Guinea			
	(1)	(2)	(3)	(4)
	Socioeconomic status measured by durables index		Socioeconomic status measured by owns bank acc.	
	ITT	IV	ITT	IV
<i>T1 - Risk</i>	-0.0472 (0.552)	-0.0583 (0.711)	-0.515 (0.531)	-0.667 (0.684)
<i>T2 - Econ</i>	0.796 (0.544)	1.068 (0.736)	0.649 (0.668)	0.868 (0.891)
<i>T3 - Double</i>	0.326 (0.635)	0.413 (0.821)	0.193 (0.615)	0.247 (0.799)
<i>T1 - Risk * Low SES</i>	-1.897** (0.843)	-2.458** (1.080)	-0.551 (0.678)	-0.711 (0.872)
<i>T2 - Econ * Low SES</i>	-1.635* (0.900)	-2.227* (1.235)	-1.016 (0.934)	-1.378 (1.260)
<i>T3 - Double * Low SES</i>	-0.831 (0.974)	-1.069 (1.251)	-0.395 (0.715)	-0.510 (0.919)
Low SES	1.088 (0.724)	1.091 (0.721)	0.330 (0.528)	0.330 (0.525)
<i>H0: T1 + T1 * Low SES = 0</i>	0.00129	0.00090	0.03728	0.03372
<i>H0: T2 + T2 * Low SES = 0</i>	0.22051	0.21855	0.52307	0.51842
<i>H0: T3 + T3 * Low SES = 0</i>	0.46703	0.46199	0.70553	0.70175
Individual controls	Yes	Yes	Yes	Yes
School controls	Yes	Yes	Yes	Yes
<i>N</i>	7266	7266	7266	7266
Mean dep. var. control	1.56%	1.56%	1.56%	1.56%

**Note:** Impact of treatments on migration from Guinea at the 2<sup>nd</sup> follow-up, effect in percentage points. In the first two columns, socioeconomic status is measured with a dummy taking value 1 if the respondent's household owns a larger than average number of durable items, aggregated based on the first component resulting from PCA. In the last two columns, socioeconomic status is measured with a dummy taking value 1 if the households owns a bank account. Columns (1) and (3) report ITT results, (2) and (4) report IV estimates where attendance to the information session is instrumented with assignment to treatment. Individual and school controls are specified in Table 4. All specifications include a stratification dummy, taking value 1 if the school has above-median students. Standard errors (in parentheses) are clustered at school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

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## A Appendix Tables

Table A1: Balance table: individual characteristics and outcomes (whole sample)

Variable	(1) Control Mean	(2) Risk-Control	(3) Econ-Control	(4) Double-Control
<i>(a): Main socioeconomic characteristics</i>				
Female	0.484 (0.500)	0.011 (0.022)	-0.009 (0.022)	-0.001 (0.019)
Student in 12 <sup>th</sup> grade	0.250 (0.433)	0.016 (0.027)	0.020 (0.029)	0.026 (0.032)
Student in 13 <sup>th</sup> grade	0.369 (0.483)	0.012 (0.040)	-0.001 (0.039)	-0.005 (0.042)
Wealth index (PCA)	-0.006 (1.568)	0.000 (0.107)	0.026 (0.093)	-0.005 (0.099)
Mother worked in the last 12 months	0.346 (0.476)	-0.008 (0.025)	0.020 (0.022)	-0.005 (0.021)
Mother no education	0.579 (0.494)	-0.047 (0.034)	-0.016 (0.028)	-0.034 (0.028)
Mother completed primary school	0.126 (0.332)	-0.011 (0.011)	0.002 (0.011)	-0.010 (0.013)
Mother completed secondary school	0.180 (0.384)	0.043** (0.018)	0.022 (0.016)	0.049*** (0.018)
Mother completed higher education	0.082 (0.275)	0.007 (0.018)	-0.006 (0.014)	-0.014 (0.015)
Father worked in the last 12 months	0.537 (0.499)	-0.013 (0.024)	0.018 (0.025)	-0.011 (0.024)
Father no education	0.409 (0.492)	-0.003 (0.033)	-0.025 (0.031)	-0.024 (0.028)
Father completed primary school	0.085 (0.279)	0.001 (0.010)	-0.002 (0.010)	0.001 (0.010)
Father completed secondary school	0.195 (0.396)	0.003 (0.015)	0.009 (0.014)	0.014 (0.014)
Father completed higher education	0.260 (0.439)	-0.003 (0.032)	0.024 (0.026)	0.005 (0.024)

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*(b): Migration intentions and beliefs*

Wishing to migrate	0.299 (0.458)	-0.009 (0.023)	-0.002 (0.024)	0.010 (0.025)
Planning to migrate	0.192 (0.394)	0.007 (0.021)	0.007 (0.020)	0.024 (0.022)
Preparing to migrate	0.051 (0.220)	0.001 (0.010)	0.005 (0.010)	0.006 (0.010)
Risk beliefs index for Italy (PCA)	-0.003 (1.819)	-0.003 (0.084)	0.033 (0.091)	-0.023 (0.094)
Risk beliefs index for Spain (PCA)	0.010 (1.938)	-0.062 (0.080)	0.016 (0.090)	0.004 (0.093)
Economic beliefs (PCA)	0.050 (1.731)	-0.079 (0.092)	-0.098 (0.091)	-0.013 (0.100)
Observations	1,803	3,684	3,704	3,592

**Note:** Durables index based on the PCA first component of the ownership of a list durable items: radio, television, mobile, watch, car, motorbike, bike, refrigerator, fan, air conditioner. Risk beliefs PCA includes: duration of journey in inverse hyperbolic sine (IHS) of months (winsorized at 5<sup>th</sup> perc.), journey cost in IHS of euros (winsorized at 5<sup>th</sup> perc.), probability of being beaten, of being forced to work, of being kidnapped, of dying before travel by boat, of dying during travel by boat, and of being sent back. Economics beliefs PCA index includes: probability of finding job, of continuing studies, of becoming a citizen, of having returned after 5 years, that govt at destination gives financial help, of getting asylum, if requested, percentage in favor of migration at destination, expected wage at destination in IHS of euros (winsorized at 5<sup>th</sup> perc.), expected living cost at destination in IHS of euros (winsorized at 5<sup>th</sup> perc.) Standard errors (in parentheses) are clustered at school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .



Table A2: Balance table other socioeconomic characteristics

	(1)	(2)	(3)	(4)
	Control Mean	Risk-Control	Econ-Control	Double-Control
# contacts abroad	3.040 (7.149)	0.632 (0.449)	0.333 (0.416)	0.274 (0.456)
# classmates who migrated	1.363 (4.570)	0.064 (0.179)	0.139 (0.251)	0.499 (0.373)
Daily television usage	0.571 (0.495)	-0.016 (0.030)	0.006 (0.025)	-0.017 (0.027)
Weekly or less television usage	0.099 (0.299)	-0.004 (0.013)	-0.006 (0.012)	-0.009 (0.013)
Daily internet usage	0.270 (0.444)	0.015 (0.022)	-0.019 (0.019)	0.008 (0.020)
Weekly or less internet usage	0.246 (0.431)	-0.011 (0.020)	0.009 (0.018)	-0.009 (0.019)
# brothers	2.523 (1.953)	-0.031 (0.082)	0.023 (0.082)	0.018 (0.081)
# sisters	2.441 (1.739)	0.063 (0.077)	0.049 (0.076)	0.057 (0.067)
Observations	1,803	3,651	3,704	3,555

**Note:** Number of contacts abroad is winsorized at the 95<sup>th</sup> percentile. Number of sisters and brothers are winsorized at the 99<sup>th</sup> percentile. Errors are clustered at the school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Table referenced in Section 5.1.

Table A3: Balance table on beliefs

Variable	(1) Control Mean	(2) Risk-Control	(3) Econ-Control	(4) Double-Control
<i>(a): Risk beliefs (route through Italy)</i>				
Duration of the journey	2.062 (0.914)	0.026 (0.039)	-0.033 (0.045)	0.075* (0.043)
Being beaten	58.311 (28.659)	-1.255 (1.439)	-1.077 (1.399)	-1.742 (1.436)
Being forced to work	56.934 (31.266)	-0.045 (1.368)	0.500 (1.427)	-0.381 (1.494)
Cost of the journey	15.712 (4.201)	-0.226 (0.206)	-0.046 (0.196)	-0.281 (0.215)
Being held	50.727 (31.060)	-0.662 (1.307)	-0.202 (1.420)	-0.610 (1.499)
Death before boat	40.190 (28.731)	0.040 (1.171)	0.620 (1.208)	-1.016 (1.329)
Death in boat	45.079 (29.761)	0.015 (1.195)	1.740 (1.392)	-0.010 (1.438)
Being sent back	38.407 (29.634)	0.187 (1.282)	0.593 (1.370)	0.502 (1.352)
Risk beliefs index for Italy (Kling et al., 2007)	-0.012 (0.590)	0.005 (0.026)	0.007 (0.030)	0.005 (0.029)
<i>(b): Risk beliefs (route through Spain)</i>				
Duration of the journey	2.030 (0.900)	-0.025 (0.041)	0.007 (0.048)	0.029 (0.045)
Being beaten	49.628 (29.924)	0.050 (1.359)	1.162 (1.473)	-0.381 (1.518)
Being forced to work	50.481 (31.351)	-1.327 (1.256)	0.282 (1.396)	0.112 (1.438)
Cost of the journey	15.633 (4.384)	-0.124 (0.211)	0.030 (0.187)	-0.194 (0.213)
Being held	47.099 (30.770)	-1.874 (1.136)	-0.566 (1.263)	-1.015 (1.292)
Death before boat	38.349 (28.930)	-1.041 (1.080)	-0.209 (1.150)	-0.306 (1.258)
Death in boat	41.461 (29.056)	-0.764 (1.230)	0.530 (1.207)	0.229 (1.273)
Being sent back	38.370 (28.799)	-0.262 (1.147)	-0.318 (1.195)	0.216 (1.228)
Risk beliefs index for Spain (Kling et al., 2007)	-0.005 (0.635)	-0.021 (0.026)	0.004 (0.029)	0.002 (0.029)

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*(c): Econ beliefs*

Finding a job	34.031 (27.362)	-0.554 (0.981)	-0.933 (1.003)	-0.122 (1.005)
Expected wage at dest.	15.151 (2.387)	-0.017 (0.105)	-0.031 (0.103)	0.115 (0.101)
Continuing studies	29.592 (26.380)	-1.205 (1.359)	-1.623 (1.304)	0.024 (1.370)
Getting asylum, if requested	33.126 (28.250)	-1.255 (1.261)	-1.763 (1.184)	-1.712 (1.323)
Becoming citizen	31.987 (28.550)	-0.600 (1.269)	-0.603 (1.305)	0.208 (1.385)
Not having returned after 5yrs	29.388 (27.550)	0.123 (1.337)	0.385 (1.401)	1.664 (1.456)
Receiving financial help	34.652 (32.933)	-1.259 (1.358)	-1.250 (1.294)	0.333 (1.741)
Expected liv. cost at dest.	7.527 (1.894)	0.029 (0.080)	0.043 (0.072)	-0.042 (0.072)
% in favor of migr. at destin.	39.492 (28.622)	0.089 (1.154)	-0.998 (1.218)	0.521 (1.304)
Economic beliefs index (Kling et al., 2007)	-0.012 (0.487)	0.017 (0.022)	0.027 (0.021)	0.012 (0.024)

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**Note:** Risk beliefs variables include: duration of journey in inverse hyperbolic sine of months (winsorized at 5<sup>th</sup> perc.), journey cost in inverse hyperbolic sine of euros (winsorized at 5<sup>th</sup> perc.), probability of being beaten, probability of being forced to work, probability of being kidnapped, probability of dying before travel by boat, probability of dying during travel by boat, probability of being sent back and a Kling et al. (2007) aggregate over all the previous. All z-scores enter with a negative sign in Kling et al. (2007). Economic beliefs include: probability of finding job, probability of continuing studies, probability of becoming a citizen, probability of having returned after 5 years, probability that govt at destination gives financial help, probability of getting asylum, if requested, percentage in favor of migration at destination, expected wage at destination in inverse hyperbolic sine of euros (winsorized at 5<sup>th</sup> perc.), expected living cost at destination in inverse hyperbolic sine of euros (winsorized at 5<sup>th</sup> perc.). Errors are clustered at the school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Table referenced in Section 5.1.

Table A4: Balance table for school characteristics

Variable	(1) Control Mean	(2) Risk-Control	(3) Econ-Control	(4) Double-Control
Big school	0.500 (0.506)	0.000 (0.113)	0.000 (0.113)	0.000 (0.113)
Expens. Sch.	0.450 (0.504)	0.000 (0.113)	0.150 (0.112)	0.050 (0.113)
Repeating students	53.216 (84.372)	-3.391 (24.435)	25.209 (35.687)	-9.304 (22.555)
Transfer students	130.351 (174.415)	-19.151 (33.682)	-22.401 (33.618)	-32.851 (32.097)
Female students ratio	0.459 (0.104)	-0.004 (0.020)	0.003 (0.020)	0.023 (0.020)
Student-teacher ratio	19.404 (10.370)	1.915 (2.558)	-1.321 (2.359)	-0.619 (2.554)
Student-admin staff ratio	143.658 (118.246)	41.541 (43.524)	74.037 (61.281)	-31.235 (30.708)
Student-classes ratio	38.009 (15.189)	2.957 (3.590)	-1.186 (3.479)	-1.980 (3.455)
% male teachers	1.003 (0.141)	-0.025 (0.028)	-0.033 (0.029)	0.005 (0.039)
% teachers w/ master's degree	0.488 (0.485)	-0.124 (0.130)	0.086 (0.128)	0.012 (0.123)
School Infrastructure Index (PCA)	-0.035 (0.340)	-0.083 (0.067)	-0.020 (0.074)	0.242 (0.310)
Observations	40	80	80	80

**Note:** School Infrastructure Index is constructed based on the first component resulting from PCA of a list of variables summarizing school characteristics: rooms per student, average classrooms surface, ground and door materials, toilets, televisions, computers, printers and photocopiers per student, presence of internet connection, a library, an infirmary, water, separate toilets for boys and girls. Errors are clustered at the school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Table referenced in Section 5.1.

Table A5: Number of observations by treatment arm and survey (baseline, follow up 1 and 2)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	All		Control		T1 - Risk		T2 - Econ		T3 - Double	
	Obs	%	Obs	%	Obs	%	Obs	%	Obs	%
<b>Baseline</b>										
In-Person	7374	.	1803	.	1881	.	1901	.	1789	.
<b>Follow Up 1</b>										
In-Person	4474	.607	1164	.646	1101	.585	1156	.608	1053	.589
<b>Follow Up 2</b>										
In-Person	2379	.323	660	.366	536	.285	598	.315	585	.327
Respondent (Phone)	7130	.967	1749	.97	1828	.972	1822	.958	1731	.968
Contact (Phone)	7237	.981	1774	.984	1850	.984	1854	.975	1759	.983
School survey	7342	.996	1795	.996	1871	.995	1894	.996	1782	.996

**Note:** Odd columns in this table report the number of observations in each treatment arm and survey. Even column report the same figure as a percentage of baseline numbers for the same treatment arm. Table referenced in Section 5.1. By ‘school survey,’ we indicate the survey conducted with students and members of the administration about the migration status of subjects absent at school at the 2<sup>nd</sup> Follow Up.

Table A6: Attrition by treatment arm and follow-up survey completed

	y = attrited at survey				
	(1)	(2)	(3)	(4)	(5)
	1 <sup>st</sup> F.U.	2 <sup>nd</sup> F.U.			
	In-Person Survey	In-Person Survey	In-Person + Phone Surv. w/ Respond.	In-Person + Phone Surv. w/ Respond. or Contact	In-Person + Phone Surv. w/ Respond. or Contact + School Surv.
<i>T1 - Risk</i>	0.0632** (0.0294)	0.0763* (0.0417)	-0.00449 (0.00671)	-0.00147 (0.00522)	-0.000680 (0.00281)
<i>T2 - Econ</i>	0.0383 (0.0353)	0.0515 (0.0407)	0.00958 (0.00733)	0.00657 (0.00644)	-0.00289 (0.00214)
<i>T3 - Double</i>	0.0511 (0.0339)	0.0318 (0.0446)	-0.000214 (0.00646)	-0.00236 (0.00542)	-0.00271 (0.00231)
<i>H0: T1 = T2 (p-value)</i>	0.42	0.54	0.06	0.17	0.32
<i>H0: T1 = T3 (p-value)</i>	0.68	0.32	0.51	0.85	0.40
<i>H0: T2 = T3 (p-value)</i>	0.72	0.65	0.17	0.14	0.91
<i>N</i>	7304	7294	7294	7294	7294
Mean dep. var. control	0.354	0.634	0.030	0.016	0.004

**Note:** The outcome variable in this table is a dummy taking value 1 if the student is attrited for a given follow-up survey. The first column refers to the first follow up while the last 4 refer to the second follow up. The first and second columns report results for the tablet survey performed in school. The third column adds phone surveys with respondents. The fourth column adds the phone survey with contacts. The fifth column adds the school survey performed with schoolmates and the school administration. The table also reports the p-values for tests that the coefficient on different treatments are statistically different. Standard errors (in parentheses) are clustered at school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Table referenced in Section 5.1.

Table A7: Migration intentions in the Afrobarometer (Round 7, 2016-18) vs in our sample

	(1)	(2)	(3)
	Plans	Prepares	$N$
<b>Our sample</b>			
All, baseline	0.20	0.05	7368.00
<b>Guinea</b>			
Young (18-21 years old)	0.25	0.03	147.00
All	0.19	0.04	1194.00
<b>Conakry</b>			
Young (18-21 years old)	0.54	0.04	28.00
All	0.35	0.06	192.00

This table reports the fraction of respondents interviewed by the Afrobarometer (Round 7) answering ‘Yes’ to questions about their migration intentions, compared to fractions in our sample answering similar questions. Specifically, the first column reports the fraction planning to migrate and the second reports the fraction of individuals who has made some preparations to move. All rows except the first report such fractions for different sub-samples of the interviewed population while the first row refers to all the population in our sample answering ‘Yes’ to comparable questions. Table referenced in Section 5.2.

Table A8: Migration networks and migration information at baseline

<b>(a): Migrants networks</b>	
Has a classmate who migrated	38%
N. of classmates who migrated	1.5
Has a contact abroad	60%
N. of contacts abroad	3.4
<b>(b): Own information acquisition</b>	
Discussed about migration w/ friends/siblings last week	41%
Has a contact abroad & discusses economic outcomes abroad w/ him/her	34%
Has a contact abroad & discusses risk of the journey w/ him/her	32%
<b>(c): Previous knowledge of irregular migration routes</b>	
Heard about boats transporting migrants from Libya to Italy	92%
Heard about boats transporting migrants from Morocco/Algeria to Spain	88%
<b>(d): Misconceptions about migration to Europe</b>	
False that asylum-seekers can work in Italy	44%
True that a poverty gives right to asylum in Italy	34%
True that Italy has <i>ius soli</i>	67%
False that asylum-seekers can be deported to European country of first arrival	15%
False that Guineans can obtain Italian citizenship by marrying Italian	13%
Observations	7,367

**Note:** This table reports descriptive statistics about respondents' migration networks and knowledge of migration at baseline.



Table A9: Impacts on Kling et al. (2007) indexes at the 1<sup>st</sup> follow up

	(1) Kling Cost- Ita	(2) Kling Cost+ Ita	(3) Kling Cost- Spa	(4) Kling Cost+ Spa	(5) Kling Econ
<i>Panel (a)</i>					
Any treatment	0.235*** (0.0218)	0.220*** (0.0214)	0.240*** (0.0252)	0.234*** (0.0246)	0.152*** (0.0244)
<i>Panel (b)</i>					
T1 - Risk	0.25*** (0.030)	0.24*** (0.029)	0.25*** (0.033)	0.26*** (0.031)	0.10*** (0.032)
T2 - Econ	0.18*** (0.025)	0.16*** (0.026)	0.18*** (0.029)	0.17*** (0.029)	0.15*** (0.031)
T3 - Double	0.28*** (0.035)	0.26*** (0.036)	0.29*** (0.037)	0.28*** (0.038)	0.21*** (0.033)
<i>H0: T1 = T2 (p-value)</i>	0.03	0.02	0.04	0.00	0.16
<i>H0: T1 = T3 (p-value)</i>	0.41	0.71	0.41	0.60	0.00
<i>H0: T2 = T3 (p-value)</i>	0.00	0.01	0.00	0.00	0.06
<i>N</i>	4379	4379	4381	4381	4321
Mean dep. var. control	-0.096	-0.067	-0.056	-0.045	-0.071

**Note:** The dependent variable in (1) is an aggregator of Italy risk perceptions based on Kling et al. (2007) using positive cost, (2) uses negative cost. (3) and (4) are the same, for Spain. (5) is Kling aggregator for perceptions about economic outcomes. All specifications include a stratification dummy, taking value 1 if the school has above-median students, and individual and school controls. Standard errors (in parentheses) are clustered at school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Table referenced in Section 6.1.1 and Section Section 6.1.2.

Table A10: Impact on migration from Guinea, heterogeneous effects by baseline beliefs (alternative benchmark beliefs for double treatment)

	y = migration from Guinea					
	(1) ITT	(2) ITT	(3) ITT	(4) IV	(5) IV	(6) IV
T1 - Risk	-0.346 (0.981)	-0.392 (0.980)	-0.425 (0.948)	-0.443 (1.245)	-0.498 (1.242)	-0.531 (1.200)
T2 - Econ	-0.284 (0.617)	-0.340 (0.622)	-0.433 (0.592)	-0.375 (0.812)	-0.446 (0.817)	-0.584 (0.781)
T3 - Double	-0.190 (0.569)	-0.203 (0.571)	-0.220 (0.557)	-0.242 (0.732)	-0.256 (0.732)	-0.299 (0.719)
T1 - Risk * Underestimates risk	-0.489 (0.965)	-0.472 (0.965)	-0.467 (0.960)	-0.917 (1.260)	-0.903 (1.254)	-0.922 (1.248)
T2 - Econ * Overestimates econ	0.918 (0.747)	0.999 (0.762)	0.991 (0.759)	0.900 (1.075)	1.005 (1.096)	0.954 (1.089)
T3 - Double * Und. risk & over. econ	0.367 (0.595)	0.394 (0.597)	0.440 (0.593)	0.210 (0.691)	0.241 (0.693)	0.276 (0.687)
Underestimates risk	-0.322 (0.515)	-0.328 (0.520)	-0.304 (0.518)	-0.323 (0.514)	-0.329 (0.518)	-0.302 (0.515)
Overestimates econ	-0.463 (0.371)	-0.497 (0.368)	-0.457 (0.364)	-0.461 (0.368)	-0.495 (0.364)	-0.451 (0.360)
<i>H0: T1 + T1 * Underestimates risk = 0</i>	0.03694	0.03169	0.02767	0.01581	0.01265	0.00941
<i>H0: T2 + T2 * Overestimates econ = 0</i>	0.26149	0.25343	0.29255	0.52758	0.50958	0.64285
<i>H0: T3 + T3 * Und. risk &amp; over. econ = 0</i>	0.73886	0.71895	0.67718	0.95645	0.97866	0.96835
Individual controls	No	Yes	Yes	No	Yes	Yes
School controls	No	No	Yes	No	No	Yes
N	7150	7150	7150	7150	7150	7150
Mean dep. var. control	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%

**Note:** Impact of treatments on migration from Guinea at the 2<sup>nd</sup> follow-up, effect in percentage points. The dummy ‘Underestimates risk’ equals 1 if the respondent’s baseline beliefs are lower than the amount announced in the treatment for at least two of the following variables: probability of being beaten, the probability of being exploited and the length of the journey for the Libyan-Italian route. The dummy ‘Overestimates econ,’ instead, equals 1 if the respondent’s baseline beliefs are lower than the amount announced in the treatment for at least two of the following variables: probability of finding a job, continuing studies, and obtaining asylum if requested. For the double treatment, the respondent is defined as optimistic if she is optimistic for risk beliefs or economic beliefs. The optimistic variable is not defined for the control group; instead, we saturate the model by separately including dummies for underestimating risk and overestimating economic benefits of migration. Columns (1)-(3) report ITT results, (4)-(6) report IV estimates where attendance to the information session is instrumented with assignment to treatment. Individual and school controls are specified in Table 4. All specifications include a stratification dummy, taking value 1 if the school has above-median students. Standard errors (in parentheses) are clustered at school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Table referenced in Section 6.4.

Table A11: Migration intentions at 1<sup>st</sup> Follow-Up

	y = intending to migrate from Guinea								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Wishing to migrate			Planning to migrate			Preparing to migrate		
	ITT	ITT	ITT	ITT	ITT	ITT	ITT	ITT	ITT
<b>Panel (a)</b>									
Any treatment	-4.555*** (1.376)	-4.661*** (1.367)	-4.555*** (1.376)	-2.821** (1.260)	-2.884** (1.274)	-2.821** (1.260)	-0.843 (0.589)	-0.912 (0.604)	-0.843 (0.589)
<b>Panel (b)</b>									
T1 - Risk	-5.227*** (1.659)	-5.217*** (1.678)	-5.304*** (1.673)	-3.294** (1.522)	-3.478** (1.539)	-3.568** (1.533)	-0.310 (0.711)	-0.434 (0.718)	-0.457 (0.681)
T2 - Econ	-4.006** (1.746)	-4.197** (1.714)	-3.922** (1.739)	-1.805 (1.571)	-1.932 (1.550)	-1.875 (1.587)	-0.989 (0.751)	-1.104 (0.746)	-0.896 (0.735)
T3 - Double	-4.713*** (1.691)	-4.609*** (1.639)	-4.431*** (1.684)	-3.345** (1.518)	-3.339** (1.506)	-3.068** (1.494)	-1.155 (0.751)	-1.188 (0.747)	-1.232 (0.781)
H0: T1 = T2 ( <i>p-value</i> )	0.47	0.55	0.42	0.32	0.30	0.28	0.34	0.35	0.53
H0: T1 = T3 ( <i>p-value</i> )	0.76	0.71	0.62	0.97	0.92	0.74	0.24	0.30	0.30
H0: T2 = T3 ( <i>p-value</i> )	0.68	0.81	0.77	0.31	0.35	0.44	0.83	0.91	0.67
N	4436	4435	4435	4436	4435	4435	4436	4435	4435
Mean dep. var. control	30.45%	30.45%	30.45%	16.97%	16.97%	16.97%	3.94%	3.94%	3.94%

**Note:** Impact of treatments on intentions to migrate from Guinea at the 1<sup>st</sup> follow-up, effect in percentage points. Panel (b) reports the effect of different treatments on the same variable. In columns (1)-(3) the dependent dummy takes value 1 if the student 'wishes' to migrate, in columns (4)-(6) if the student 'plans' to migrate, in columns (7)-(9) if the student 'prepares' to migrate. Information is collected from a survey with the respondent on tablet in school. Individual and school controls are specified in Table 4. All specifications include a stratification dummy, taking value 1 if the school has above-median students. Standard errors (in parentheses) are clustered at school level. P-values are denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Table referenced in Section 6.2.

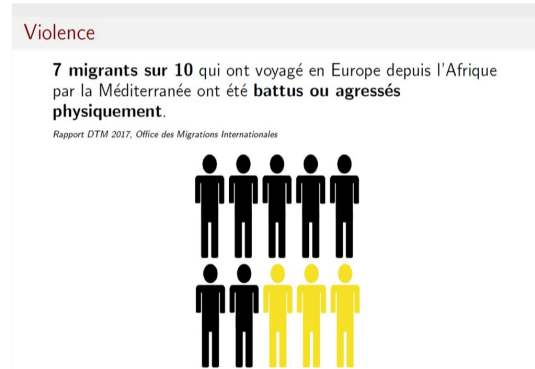
## B Appendix Figures

Figure B1: risk treatment

(a) Grab from interview



(b) Slide



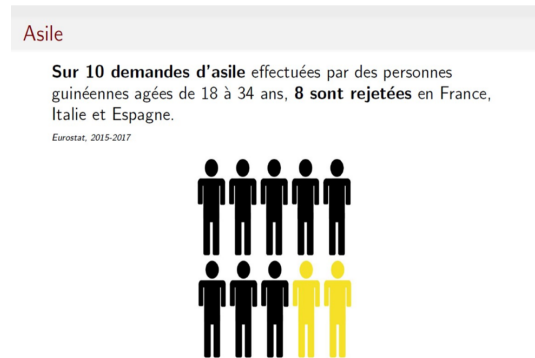
**Note:** Grab from interview in Panel (a) and example slide in Panel (b). Subtitles in grab read '[t]he hardest moment is between Agadez and Tripoli.' Slide reads '7 out of 10 migrants who travel from Africa to Europe by the Mediterranean have been beaten or physical abused.' Figure referenced in Section 1 and Section 3.1.

Figure B2: economic treatment

(a) Grab from interview

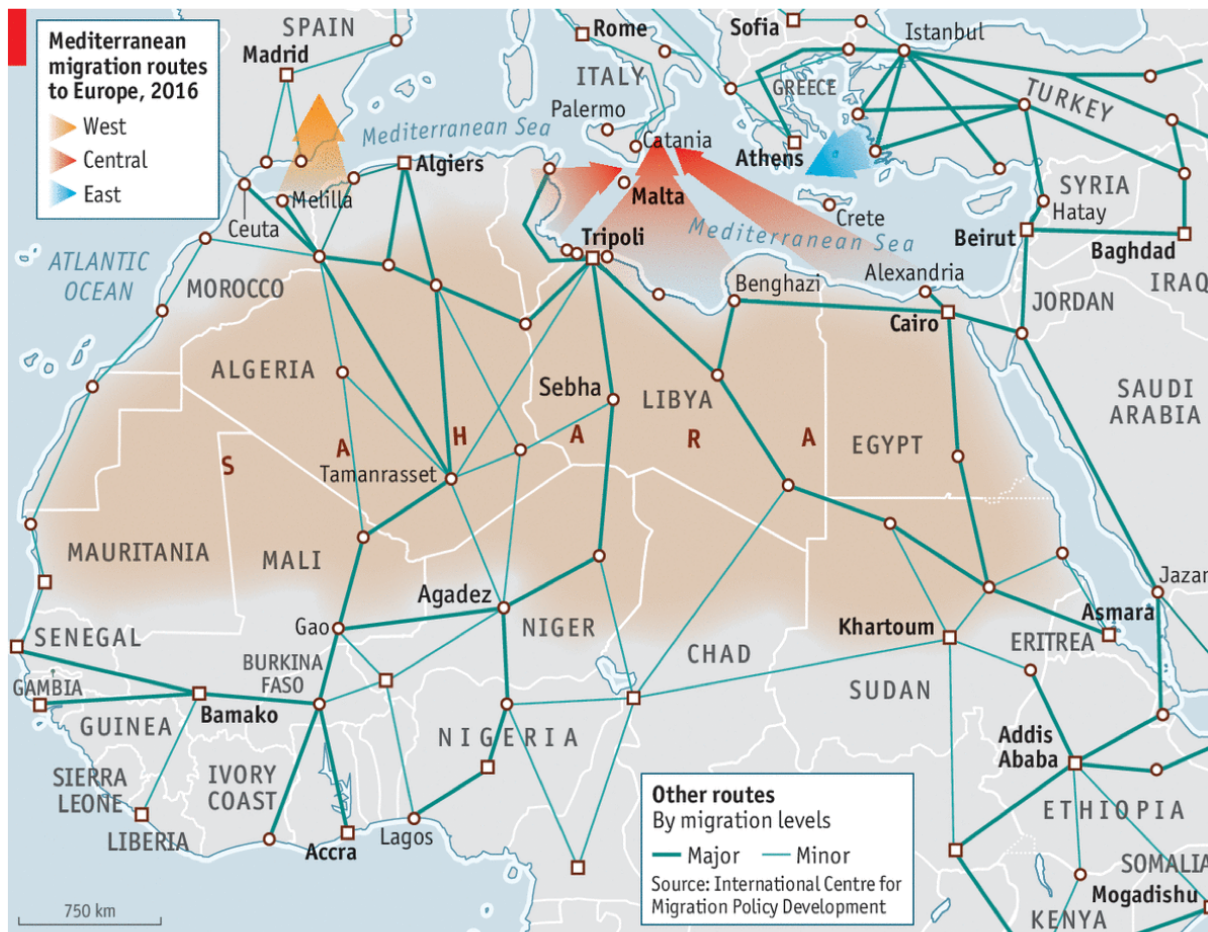


(b) Slide



**Note:** economic treatment: Grab from interview in Panel (a) and example slide on Panel (b). Subtitles in grab read '[d]ocuments and a job.' Slide reads 'Out of 10 asylum applications by Guineans aged 18 to 34, 8 are rejected in France, Italy, and Spain.' Figure referenced in Section 1 and Section 3.1.

Figure B3: Main irregular migration routes from Africa to Europe



Economist.com

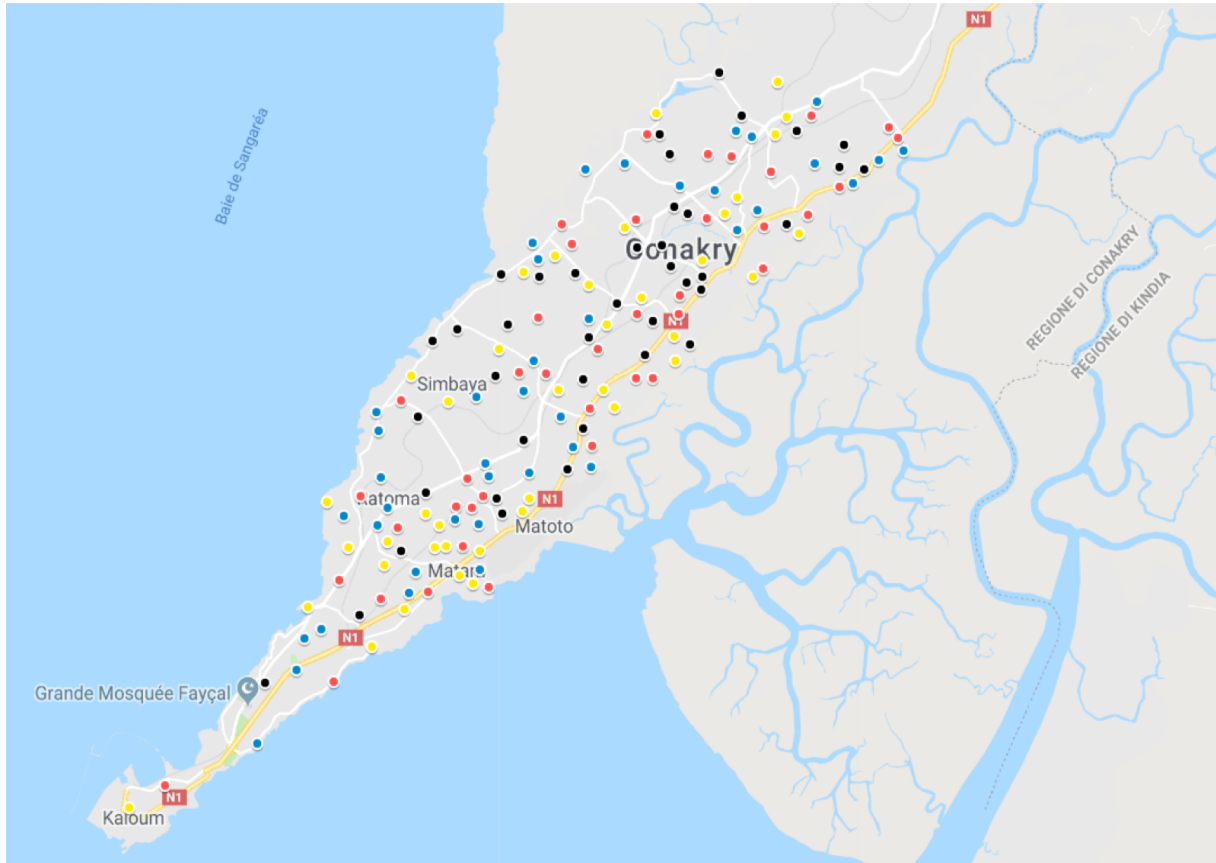
Main migration routes from Africa to Europe (The Economist, 2016). Figure referenced in Section 2.1.

Figure B4: West Africa and the Sahel region



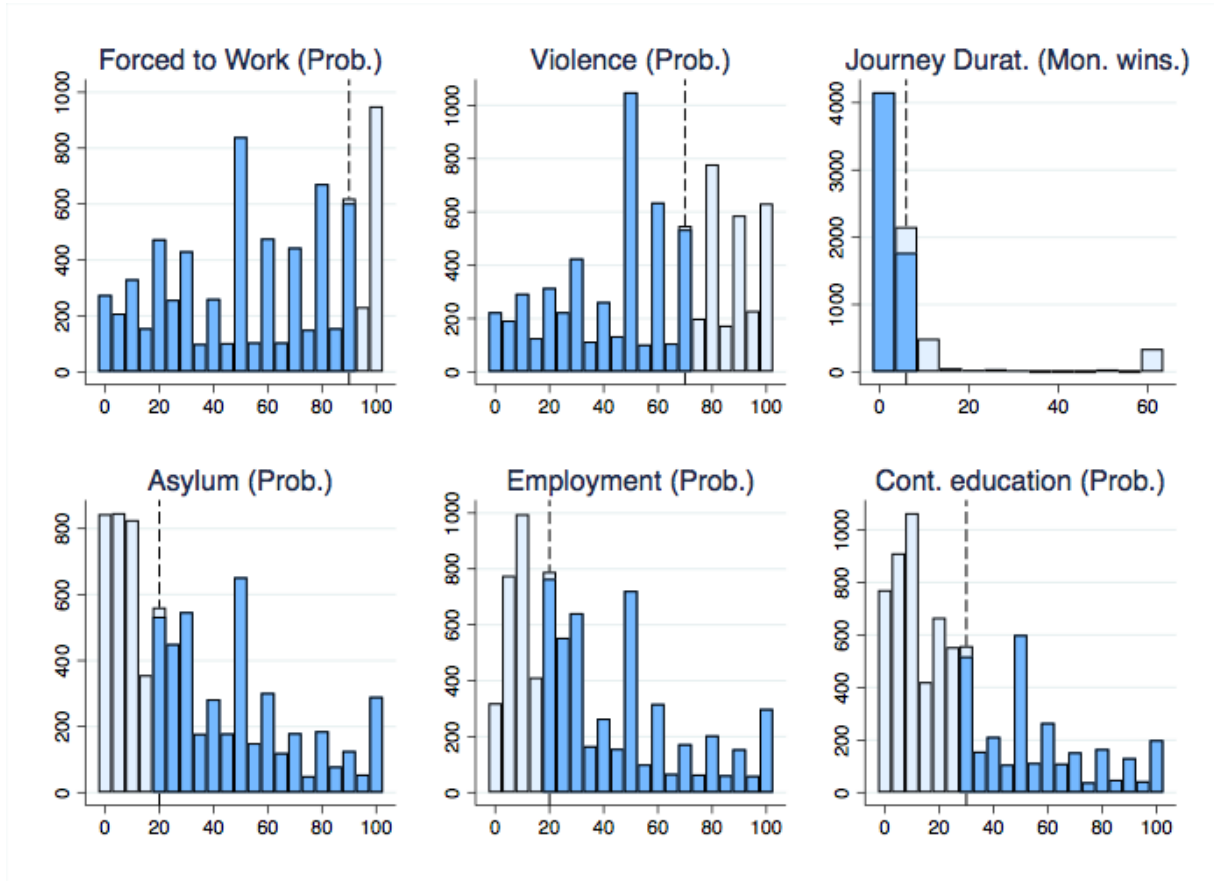
Map of West Africa and the Sahel region from Google Maps. Figure referenced in Section 2.2.

Figure B5: Schools in the Sample



**Note:** Control Group in black, risk treatment in Yellow, Econ in Blue, and Double in Red. Figure referenced in Section 3.1.

Figure B6: Beliefs at baseline compare to benchmark information during treatment



**Note:** This figure reports the distribution of of baseline perceptions for the risk and economic beliefs targeted with hard data during the information session. In each figure, the quantity elicited during the survey is on the  $x$ -axis and the absolute frequency of responses is on the  $y$ -axis. The benchmark belief is reported with a dashed line. In each histogram, dark blue bars represent ‘optimistic’ beliefs, lower than the benchmark given for risk, or higher for economic outcomes. The first row reports beliefs on risk outcomes: being forced to work, suffering violence, and duration of the journey. The second row report beliefs on economic outcomes: receiving asylum, finding a job, and continuing education. Figure referenced in Section 6.4.