Informing Risky Migration: Evidence from a field experiment in Guinea

G. Battiston\textsuperscript{1,4} \quad L. Corno\textsuperscript{2,4} \quad E. La Ferrara\textsuperscript{3,4}

\textsuperscript{1}Free University of Bozen-Bolzano  \quad \textsuperscript{2}Cattolica University of Milan  \quad \textsuperscript{3}Bocconi University  \quad \textsuperscript{4}LEAP

December 20, 2021
CLEAN Xmas Workshop
Irregular migration from Africa to Europe

About 475,000 migrants crossed the Mediterranean from 2014 to 2017.
Irregular migration from Africa to Europe

About 475,000 migrants crossed the Mediterranean from 2014 to 2017.

Irregular migration is risky:

- **Traveling risks**: geographical barriers (Sahara, Mediterranean) and trafficking risk in transit countries (Libya, Niger)
  - Approximately 23,000 migrants died while trying to cross the sea since 2014 (IOM, 2019).
  - High risk of trafficking and physical injuries in the Sahara desert and North Africa (MMC, 2018; IOM, 2019).

- **Uncertain economic outcomes**: irregular migrants who manage to reach Europe encounter legal obstacles to labor market participation.
Research questions

Are potential migrants informed about these risks?

- Does providing information about the *risk of journey* affect migrants’ beliefs about the costs of migration?
- Does information about *earnings and employment prospects* in the destination countries affect their beliefs about economic returns to migration?
- Do these two types of information *influence people’s choice to migrate and to migrate irregularly*?
This paper

- We conduct an RCT collecting unique data for 160 high schools and over 7,000 students in Conakry, Guinea
- We provide *information* to make participants aware of the risks (economic and trafficking) associated with irregular migration
- Info helps potential migrants assess the relative costs and benefits of:
  - migrating irregularly
  - migrating regularly (implicitly)
  - not migrating (implicitly)
Contribution to the literature

1. Role of migrants’ expectations in determining migration decisions (McKenzie, Gibson and Stillman ’13, Hoxhaj ’15, Shrestha ’17, Bah and Batista ’20)
   → Evidence on irregular migration and beliefs about the risks connected to trafficking

2. Interventions targeting migrants’ lack of information (Shrestha ’17, Dunsch et al. ’19, Bah and Batista ’20)
   Media-based information interventions (Bia-Zanikamia et al. ’20, Mesple-Somps et al. ’21)
   → We focus on irregular migration and look at behavioral outcomes in addition to migration intentions
Outline

Motivation

Setting

Experimental Data and Design

Empirical strategy

Results

Conclusions
Guinea

- Low-income country in West Africa ($855 GDP in 2017, 12 million inh.)
- Ranked first as country of origin for irregular migrants crossing the Mediterranean in 2018 with 14,400 arrivals
- Guineans accounted for 8% of the migrants rescued at sea between 2016 and 2019 (our elaboration on UNHCR crossings data)
- Youth with secondary education over-represented among irregular migrants:
  - 55% of Guineans migrated to Italy irregularly report secondary education or above (UNHCR, 2017)
Migration Routes

*Migration routes to Europe, 2016*

- **West**
- **Central**
- **East**

*Other routes*
By migration levels

*Source: International Centre for Migration Policy Development*
Migration Routes

[Map showing migration routes to Europe, 2016]

Other routes
By migration levels
- Major
- Minor

Source: International Centre for Migration Policy Development
Outline

- Motivation
- Setting
- Experimental Data and Design
- Empirical strategy
- Results
- Conclusions
Focus on secondary school students:

- 160 high schools randomly selected among all the 300 schools in Conakry
- Minimum distance criterion to reduce spillovers
- 50 students per school in the 11th-13th grades (15-24 years old)
- Final sample of 7,387 students
Information intervention: General structure

Designed with *Un sole per Tutti* (Brescia) and *Aguidie* (Conakry):

- 30’ information intervention (45’ in T3) during school time
- with 2 moderators from *Aguidie*
Information intervention: General structure

Designed with *Un sole per Tutti* (Brescia) and *Aguidie* (Conakry):

- 30’ information intervention (45’ in T3) during school time
- with 2 moderators from *Aguidie*

Structure of treatments:

1. video (migrants’ testimonies in Italy + short story), 20 min:
   - overview of outcomes
2. data slides (Eurostat, UNHCR, IOM), 10 min:
   - outcome probability
3. discussion
4. distribution of a flyer to bring home

3 treatments (40 schools each):

- T1 (risk): only risk information
- T2 (econ): only information about economic outcomes
- T3 (double): both sets of info back to back
Information intervention: General structure

Designed with *Un sole per Tutti* (Brescia) and *Aguidie* (Conakry):

- 30' information intervention (45’ in T3) during school time
- with 2 moderators from *Aguidie*

Structure of treatments:

1. video (migrants’ testimonies in Italy + short story), 20 min:
   → overview of outcomes

2. data slides (Eurostat, UNHCR, IOM), 10 min:
   → outcome probability

3. discussion

4. distribution of a flyer to bring home

3 treatments (40 schools each):

- T1 (risk): only risk information
- T2 (econ): only information about economic outcomes
- T3 (double): both sets of info back to back
Timeline
From November 2018 to April 2020

Baseline survey at the beginning of the academic year:
- In-person tablet survey
- Treatment: T1, T2, T3
- 1st follow-up survey: same as baseline
- 2nd follow-up Survey: Migration decisions
  - In-person tablet survey
  - Phone surveys with respondent and her contacts
  - School survey with students and administration
Timeline
From November 2018 to April 2020

- Baseline survey at the beginning of the academic year:
  - Migration intentions and beliefs (prob. of econ. and journey outcomes)
  - In-person tablet survey
Timeline
From November 2018 to April 2020

- Baseline survey at the beginning of the academic year: Migration intentions and beliefs (prob. of econ. and journey outcomes)
  → In-person tablet survey
- Treatment: T1, T2, T3
Timeline
From November 2018 to April 2020

- Baseline survey at the beginning of the academic year: survey
  *Migration intentions and beliefs (prob. of econ. and journey outcomes)*
  → In-person tablet survey
- Treatment: T1, T2, T3
- 1st follow-up survey: same as baseline
Timeline
From November 2018 to April 2020

- Baseline survey at the beginning of the academic year: [survey]
  Migration intentions and beliefs (prob. of econ. and journey outcomes)
  → In-person tablet survey
- Treatment: T1, T2, T3
- 1st follow-up survey: same as baseline
- 2nd follow-up Survey:
  Migration decisions
  → In-person tablet survey
  → Phone surveys with respondent and her contacts
  → School survey with students and administration
## Attrition

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

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.
Outline

Motivation

Setting

Experimental Data and Design

**Empirical strategy**

Results

Conclusions
Empirical strategy

\[ y_{t,i,j} = \alpha_0 + \alpha_1 T_1 + \alpha_2 T_2 + \alpha_3 T_3 + \rho_0 X_0 + \epsilon_{i,j}, \]

- \( y_{t,i,j} \): beliefs at 1\(^{st}\) follow up, migration at 2\(^{nd}\) follow up

- Not needed for migration outcomes

- Standard errors clustered at the school level

- FWER p-values (Westfall and Young, '93)
Empirical strategy

\[ y_{t,i,j} = \alpha_0 + \alpha_1 T_{1j} + \alpha_2 T_{2j} + \alpha_3 T_{3j} \]

- \( y_{t,i,j} \): beliefs at 1\(^{st}\) follow up, migration at 2\(^{nd}\) follow up
Empirical strategy

\[ y_{t,i,j} = \alpha_0 + \alpha_1 T_{1j} + \alpha_2 T_{2j} + \alpha_3 T_{3j} + \alpha_X X_{0,i,j} \]

- \( y_{t,i,j} \): beliefs at 1\(^{st}\) follow up, migration at 2\(^{nd}\) follow up
- \( X_{0,i,j} \):
  1. \textit{individual}: gender, grade, indicators for parents being alive, having completed education, \# siblings
  2. \textit{school}: above-median school fees, ratio of male-to-female ratio, student-to-class-ratio, student-to-teacher ratio
  3. \textit{stratification}: above-median number of students

Not needed for migration outcomes

\[ \text{standard errors clustered at the school level} \]
\[ \text{FWER p-values (Westfall and Young, '93)} \]
Empirical strategy

\[ y_{t,i,j} = \alpha_0 + \alpha_1 T_{1j} + \alpha_2 T_{2j} + \alpha_3 T_{3j} + \alpha X_{0,i,j} + \rho y_{0,i,j} \]

- \( y_{t,i,j} \): beliefs at 1\textsuperscript{st} follow up, migration at 2\textsuperscript{nd} follow up
- \( X_{0,i,j} \):
  1. \textit{individual}: gender, grade, indicators for parents being alive, having completed education, \# siblings
  2. \textit{school}: above-median school fees, ratio of male-to-female ratio, student-to-class-ratio, student-to-teacher ratio
  3. \textit{stratification}: above-median number of students
- \( y_{0,i,j} \): beliefs and migration intentions for student \( i \) in school \( j \) at baseline. \textit{Not needed for migration outcomes}
Empirical strategy

\[ y_{t,i,j} = \alpha_0 + \alpha_1 T_{1j} + \alpha_2 T_{2j} + \alpha_3 T_{3j} + \alpha X_{0,i,j} + \rho y_{0,i,j} + \varepsilon_{i,j} \]

- \( y_{t,i,j} \): beliefs at 1\(^{st} \) follow up, migration at 2\(^{nd} \) follow up
- \( X_{0,i,j} \):
  1. \textit{individual}: gender, grade, indicators for parents being alive, having completed education, \# siblings
  2. \textit{school}: above-median school fees, ratio of male-to-female ratio, student-to-class-ratio, student-to-teacher ratio
  3. \textit{stratification}: above-median number of students
- \( y_{0,i,j} \): beliefs and migration intentions for student \( i \) in school \( j \) at baseline. \textit{Not needed for migration outcomes}
- standard errors clustered at the school level
Empirical strategy

\[ y_{t,i,j} = \alpha_0 + \alpha_1 T_{1j} + \alpha_2 T_{2j} + \alpha_3 T_{3j} + \alpha_X X_{0,i,j} + \rho y_{0,i,j} + \varepsilon_{i,j} \]

- \( y_{t,i,j} \): beliefs at 1\(^{st}\) follow up, migration at 2\(^{nd}\) follow up
- \( X_{0,i,j} \):
  1. \textit{individual}: gender, grade, indicators for parents being alive, having completed education, \# siblings
  2. \textit{school}: above-median school fees, ratio of male-to-female ratio, student-to-class-ratio, student-to-teacher ratio
  3. \textit{stratification}: above-median number of students
- \( y_{0,i,j} \): beliefs and migration intentions for student \( i \) in school \( j \) at baseline. \textit{Not needed for migration outcomes}
- standard errors clustered at the school level
- FWER p-values (Westfall and Young, '93)
Outline

Motivation

Setting

Experimental Data and Design

Empirical strategy

Results

Conclusions
Impact on Risk Perceptions

1st follow up

OLS estimates for different outcomes/treatments, with confidence intervals. Errors are clustered at school level, lagged outcome included in regression, with stratification dummy. FWER significant at 5% level in blue.

- Baseline beliefs
- Information gaps
- Impact on migration intentions
- Impact on non-probability risk perc.
Impact on Risk Perceptions

1st follow up

OLS estimates for different outcomes/treatments, with confidence intervals. Errors are clustered at school level, lagged outcome included in regression, with stratification dummy. FWER significant at 5% level in blue.

Baseline beliefs  Information gaps  Impact on migration intentions  Impact on non-probability risk perc.
Impact on Risk Perceptions

1st follow up

OLS estimates for different outcomes/treatments, with confidence intervals. Errors are clustered at school level, lagged outcome include in regression, with stratification dummy. FWER significant at 5% level in blue.

Baseline beliefs  Information gaps  Impact on migration intentions  Impact on non-probability risk perc.
Impact on Risk Perceptions

1st follow up

OLS estimates for different outcomes/treatments, with confidence intervals. Errors are clustered at school level, lagged outcome include in regression, with stratification dummy. FWER significant at 5% level in blue.

Baseline beliefs Information gaps Impact on migration intentions Impact on non-probability risk perc.
Impact on Economic Perceptions

1st follow up

OLS estimates for different outcomes/treatments, with confidence intervals. Errors are clustered at school level, lagged outcome include in regression, with stratification dummy. FWER significant at 5% level in blue.

Baseline beliefs  Information gaps  Impact on migration intentions  Impact on non-probability econ perc.
Impact on Economic Perceptions

1st follow up

OLS estimates for different outcomes/treatments, with confidence intervals. Errors are clustered at school level, lagged outcome include in regression, with stratification dummy. FWER significant at 5% level in blue.

Baseline beliefs  Information gaps  Impact on migration intentions  Impact on non-probability econ perc.
Impact on Economic Perceptions

1st follow up

OLS estimates for different outcomes/treatments, with confidence intervals. Errors are clustered at school level, lagged outcome include in regression, with stratification dummy. FWER significant at 5% level in blue.

Baseline beliefs | Information gaps | Impact on migration intentions | Impact on non-probability econ perc.
Impact on Economic Perceptions

1st follow up

OLS estimates for different outcomes/treatments, with confidence intervals. Errors are clustered at school level, lagged outcome include in regression, with stratification dummy. FWER significant at 5% level in blue.

Baseline beliefs
Information gaps
Impact on migration intentions
Impact on non-probability econ perc.
Impact on migration at $2^{nd}$ follow up
1 if outside Guinea since at least 30 days

<table>
<thead>
<tr>
<th></th>
<th>y = migration from Guinea</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>ITT</td>
</tr>
</tbody>
</table>

**Panel (a)**

Any treatment

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.169</td>
<td>-0.177</td>
<td>-0.235</td>
<td>-0.311</td>
<td>-0.233</td>
<td>-0.311</td>
</tr>
<tr>
<td></td>
<td>(0.364)</td>
<td>(0.371)</td>
<td>(0.352)</td>
<td>(0.464)</td>
<td>(0.486)</td>
<td>(0.464)</td>
</tr>
</tbody>
</table>

**Panel (b)**

<table>
<thead>
<tr>
<th>T1 - Risk</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.736*</td>
<td>-0.759*</td>
<td>-0.793**</td>
<td>-0.954*</td>
<td>-0.984*</td>
<td>-1.027**</td>
</tr>
<tr>
<td></td>
<td>(0.399)</td>
<td>(0.400)</td>
<td>(0.392)</td>
<td>(0.520)</td>
<td>(0.519)</td>
<td>(0.503)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T2 - Econ</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.242</td>
<td>0.231</td>
<td>0.133</td>
<td>0.329</td>
<td>0.315</td>
<td>0.177</td>
</tr>
<tr>
<td></td>
<td>(0.449)</td>
<td>(0.455)</td>
<td>(0.408)</td>
<td>(0.609)</td>
<td>(0.617)</td>
<td>(0.555)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T3 - Double</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.0166</td>
<td>-0.00979</td>
<td>-0.0104</td>
<td>-0.0214</td>
<td>-0.0122</td>
<td>-0.0157</td>
</tr>
<tr>
<td></td>
<td>(0.458)</td>
<td>(0.459)</td>
<td>(0.449)</td>
<td>(0.588)</td>
<td>(0.588)</td>
<td>(0.583)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>H0: $T1 = T2$ (p-value)</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>H0: $T1 = T3$ (p-value)</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.08</td>
<td>0.06</td>
<td>0.05</td>
<td>0.08</td>
<td>0.06</td>
<td>0.05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>H0: $T2 = T3$ (p-value)</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.57</td>
<td>0.59</td>
<td>0.73</td>
<td>0.56</td>
<td>0.58</td>
<td>0.72</td>
</tr>
</tbody>
</table>

| Individual controls | No | Yes | Yes | No | Yes | Yes |
| School controls     | No | No  | Yes | No | No  | Yes |
| N                   | 7273 | 7266 | 7266 | 7273 | 7266 | 7266 |
| Mean dep. var. control | 1.56% | 1.56% | 1.56% | 1.56% | 1.56% | 1.56% |
Impact on migration at 2\textsuperscript{nd} follow up
1 if outside Guinea since at least 30 days

<table>
<thead>
<tr>
<th>y = migration from Guinea</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any treatment</td>
<td>-0.169</td>
<td>-0.177</td>
<td>-0.235</td>
<td>-0.311</td>
<td>-0.233</td>
<td>-0.311</td>
</tr>
<tr>
<td></td>
<td>(0.364)</td>
<td>(0.371)</td>
<td>(0.352)</td>
<td>(0.464)</td>
<td>(0.486)</td>
<td>(0.464)</td>
</tr>
</tbody>
</table>

Panel (a)

Panel (b)

| T1 - Risk                  | -0.736* | -0.759* | -0.793** | -0.954* | -0.984* | -1.027** |
|                           | (0.399) | (0.400) | (0.392) | (0.520) | (0.519) | (0.503) |
| T2 - Econ                  | 0.242 | 0.231 | 0.133 | 0.329 | 0.315 | 0.177 |
|                           | (0.449) | (0.455) | (0.408) | (0.609) | (0.617) | (0.555) |
| T3 - Double                | -0.0166 | -0.00979 | -0.0104 | -0.0214 | -0.0122 | -0.0157 |
|                           | (0.458) | (0.459) | (0.449) | (0.588) | (0.588) | (0.583) |

H0: T1 = T2 (p-value) 0.01 0.01 0.01 0.02 0.01 0.01
H0: T1 = T3 (p-value) 0.08 0.06 0.05 0.08 0.06 0.05
H0: T2 = T3 (p-value) 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 No
N 7273 7266 7266 7273 7266 7266
Mean dep. var. control 1.56% 1.56% 1.56% 1.56% 1.56% 1.56%

→ Migration decreases by 0.8 pp (half of total migration in the sample)
# Impact on migration, HTE by visa status

<table>
<thead>
<tr>
<th></th>
<th>(1) ITT</th>
<th>(2) ITT</th>
<th>(3) ITT</th>
<th>(4) IV</th>
<th>(5) IV</th>
<th>(6) IV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(a): Migration without visa</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$T_1$ - Risk</td>
<td>-0.555** (0.230)</td>
<td>-0.545** (0.236)</td>
<td>-0.574** (0.239)</td>
<td>-0.718** (0.299)</td>
<td>-0.705** (0.306)</td>
<td>-0.744** (0.307)</td>
</tr>
<tr>
<td>$T_2$ - Econ</td>
<td>0.237 (0.349)</td>
<td>0.240 (0.352)</td>
<td>0.230 (0.337)</td>
<td>0.321 (0.472)</td>
<td>0.327 (0.474)</td>
<td>0.310 (0.455)</td>
</tr>
<tr>
<td>$T_3$ - Double</td>
<td>0.0137 (0.320)</td>
<td>0.0308 (0.325)</td>
<td>0.0975 (0.315)</td>
<td>0.0177 (0.412)</td>
<td>0.0399 (0.416)</td>
<td>0.126 (0.408)</td>
</tr>
<tr>
<td>Individual controls</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>School controls</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>$N$</td>
<td>7244</td>
<td>7237</td>
<td>7237</td>
<td>7244</td>
<td>7237</td>
<td>7237</td>
</tr>
<tr>
<td>Mean dep. var. control</td>
<td>0.67%</td>
<td>0.67%</td>
<td>0.67%</td>
<td>0.67%</td>
<td>0.67%</td>
<td>0.67%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(1) ITT</th>
<th>(2) ITT</th>
<th>(3) ITT</th>
<th>(4) IV</th>
<th>(5) IV</th>
<th>(6) IV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(b): Migration with visa</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$T_1$ - Risk</td>
<td>-0.0678 (0.207)</td>
<td>-0.0998 (0.203)</td>
<td>-0.103 (0.196)</td>
<td>-0.0878 (0.268)</td>
<td>-0.130 (0.263)</td>
<td>-0.133 (0.251)</td>
</tr>
<tr>
<td>$T_2$ - Econ</td>
<td>-0.0780 (0.218)</td>
<td>-0.0951 (0.215)</td>
<td>-0.123 (0.206)</td>
<td>-0.106 (0.296)</td>
<td>-0.130 (0.291)</td>
<td>-0.169 (0.280)</td>
</tr>
<tr>
<td>$T_3$ - Double</td>
<td>0.242 (0.268)</td>
<td>0.216 (0.265)</td>
<td>0.177 (0.255)</td>
<td>0.313 (0.344)</td>
<td>0.278 (0.339)</td>
<td>0.229 (0.330)</td>
</tr>
<tr>
<td>Individual controls</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>School controls</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>$N$</td>
<td>7244</td>
<td>7237</td>
<td>7237</td>
<td>7244</td>
<td>7237</td>
<td>7237</td>
</tr>
<tr>
<td>Mean dep. var. control</td>
<td>0.45%</td>
<td>0.45%</td>
<td>0.45%</td>
<td>0.45%</td>
<td>0.45%</td>
<td>0.45%</td>
</tr>
</tbody>
</table>

→ $T_1$ has an effect only for students migrated without visa (56%).
Impact on migration, HTE by visa status

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

→ $T1$ has an effect only for students migrated without visa (56%)
## Impact on migration, HTE by socioeconomic status

<table>
<thead>
<tr>
<th></th>
<th>y = migration from Guinea</th>
<th>Socioeconomic status measured by durables index</th>
<th>Socioeconomic status measured by owns bank acc.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>ITT</td>
<td>IV</td>
</tr>
<tr>
<td>T1 - Risk</td>
<td>-0.0472</td>
<td>-0.0583</td>
<td>-0.515</td>
</tr>
<tr>
<td>T2 - Econ</td>
<td>0.796</td>
<td>1.068</td>
<td>0.649</td>
</tr>
<tr>
<td>T3 - Double</td>
<td>0.326</td>
<td>0.413</td>
<td>0.193</td>
</tr>
<tr>
<td>T1 - Risk * Low SES</td>
<td>-1.897**</td>
<td>-2.458**</td>
<td>-0.551</td>
</tr>
<tr>
<td>T2 - Econ * SES</td>
<td>-1.635*</td>
<td>-2.227*</td>
<td>-1.016</td>
</tr>
<tr>
<td>T3 - Double * SES</td>
<td>-0.831</td>
<td>-1.069</td>
<td>-0.395</td>
</tr>
<tr>
<td>Low SES</td>
<td>1.088</td>
<td>1.091</td>
<td>0.330</td>
</tr>
</tbody>
</table>

### H0 Tests

#### H0: T1 + T1 * Low SES = 0
- (1) 0.00129 0.00090 0.03728 0.03372
- (2) 0.00129 0.00090 0.03728 0.03372
- (3) 0.00129 0.00090 0.03728 0.03372
- (4) 0.00129 0.00090 0.03728 0.03372

#### H0: T2 + T2 * Low SES = 0
- (1) 0.22051 0.21855 0.52307 0.51842
- (2) 0.22051 0.21855 0.52307 0.51842
- (3) 0.22051 0.21855 0.52307 0.51842
- (4) 0.22051 0.21855 0.52307 0.51842

#### H0: T3 + T3 * Low SES = 0
- (1) 0.46703 0.46199 0.70553 0.70175
- (2) 0.46703 0.46199 0.70553 0.70175
- (3) 0.46703 0.46199 0.70553 0.70175
- (4) 0.46703 0.46199 0.70553 0.70175

### Controls

- Individual controls: Yes, Yes, Yes, Yes
- School controls: Yes, Yes, Yes, Yes
- N: 7266, 7266, 7266, 7266
- Mean dep. var. control: 1.56%, 1.56%, 1.56%, 1.56%

→ T1 effect driven by liquidity-constrained students

HTE beliefs
Impact on migration, HTE by socioeconomic status

<table>
<thead>
<tr>
<th></th>
<th>y = migration from Guinea</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ITT</td>
<td>IV</td>
<td>ITT</td>
<td>IV</td>
</tr>
<tr>
<td>Socioeconomic status measured by durables index</td>
<td>Socioeconomic status measured by owns bank acc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1 - Risk</td>
<td>-0.0472</td>
<td>-0.0583</td>
<td>-0.515</td>
<td>-0.667</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.552)</td>
<td>(0.711)</td>
<td>(0.531)</td>
<td>(0.684)</td>
<td></td>
</tr>
<tr>
<td>T2 - Econ</td>
<td>0.796</td>
<td>1.068</td>
<td>0.649</td>
<td>0.868</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.544)</td>
<td>(0.736)</td>
<td>(0.668)</td>
<td>(0.891)</td>
<td></td>
</tr>
<tr>
<td>T3 - Double</td>
<td>0.326</td>
<td>0.413</td>
<td>0.193</td>
<td>0.247</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.635)</td>
<td>(0.821)</td>
<td>(0.615)</td>
<td>(0.799)</td>
<td></td>
</tr>
<tr>
<td>T1 - Risk * Low SES</td>
<td>-1.897**</td>
<td>-2.458**</td>
<td>-0.551</td>
<td>-0.711</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.843)</td>
<td>(1.080)</td>
<td>(0.678)</td>
<td>(0.872)</td>
<td></td>
</tr>
<tr>
<td>T2 - Econ * SES</td>
<td>-1.635*</td>
<td>-2.227*</td>
<td>-1.016</td>
<td>-1.378</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.900)</td>
<td>(1.235)</td>
<td>(0.934)</td>
<td>(1.260)</td>
<td></td>
</tr>
<tr>
<td>T3 - Double * SES</td>
<td>-0.831</td>
<td>-1.069</td>
<td>-0.395</td>
<td>-0.510</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.974)</td>
<td>(1.251)</td>
<td>(0.715)</td>
<td>(0.919)</td>
<td></td>
</tr>
<tr>
<td>Low SES</td>
<td>1.088</td>
<td>1.091</td>
<td>0.330</td>
<td>0.330</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.724)</td>
<td>(0.721)</td>
<td>(0.528)</td>
<td>(0.525)</td>
<td></td>
</tr>
</tbody>
</table>

H0: $T_1 + T_1 \times \text{Low SES} = 0$  
0.00129 0.00090 0.03728 0.03372

H0: $T_2 + T_2 \times \text{Low SES} = 0$  
0.22051 0.21855 0.52307 0.51842

H0: $T_3 + T_3 \times \text{Low SES} = 0$  
0.46703 0.46199 0.70553 0.70175

Individual controls
Yes Yes Yes Yes
School controls
Yes Yes Yes Yes
N
7266 7266 7266 7266
Mean dep. var. control
1.56% 1.56% 1.56% 1.56%

→ T1 effect driven by liquidity-constrained students

HTE beliefs
Outline

Motivation

Setting

Experimental Data and Design

Empirical strategy

Results

Conclusions
Conclusions

RCT to evaluate the impact of an information intervention about

- risks of migration
- economic outcomes of migrating
Conclusions

RCT to evaluate the impact of an information intervention about

- risks of migration
- economic outcomes of migrating

Results:

- 1 months after the treatment students revise risk expectations upwards and economic prospects downwards
- 1.5 years after the treatment
  - students receiving information on the risk of the journey are less likely to migrate
  - effect driven by poor students, without a visa
  - no effect of information on the economic returns of migration
Null effects: Potential explanations

Econ treatment has no effect on migration:
- Economic returns might more idiosyncratic than risk of traveling
- Outside option may not be good enough

Risk treatment affects migration while double treatment does not. Why?
- not due to beliefs’ to differences in beliefs impact at the 1st follow up
- explanation we are exploring now:
  → endogenous information acquisition in response to treatment
Thank you for your attention!
Missing Migrants since 2014

IOM missing migrants' project
Trend in irregular migration

Source: Frontex
Information about Risk Outcomes

- **Video:** dangerous traveling conditions (Sahara, Libya, Mediterranean)
- **3 slides:** exploitation, violence, journey length (UNHCR, IOM)

**Flyer with 6 vignettes:** hard conditions during journey

---

**Violence**

*7 migrants sur 10 qui ont voyagé en Europe depuis l’Afrique par la Méditerranée ont été battus ou agressés physiquement.*

*Rapport DTM 2017, Office des Migrations Internationales*
Information about Economic Outcomes

- **Video**: irregular status, hard to find jobs
- **3 slides**: employment, studies, and asylum (Eurostat)

Flyer with 6 vignettes: lack of job, house and legal rights
Flyer for T1
Flyer for T2

1. Tu arrives en Europe avec l'esper d'ameliorer tes competences et trouver le travail de tes reve.

2. Mais apres tes mois de recherche, tu te sens lacheur et tu trouves que seule chose pour survivre.

3. Ce n'est pas la maison ou tu vivais, mais ta famille.

4. A un certain moment, tu abandones tout simplement.

5. Sans parler, tu n'es pas le nouveau.

6. Ce n'est pas l'endroit que tu esperais donner a ta famille.
Survey questions and instruments

3 rounds of data collection: Baseline, 1st follow up, 2nd follow up. Outcomes:

- **Risk Beliefs**: Violence, Trafficking, other Risks
- **Economic Beliefs**: Employment, Integration, Legal Status
- **Migration intentions**: Wish, Plan, Prepare to Migrate

→ In-person self-administered tablet survey (1 hour, in school, with 2 enumerators in class, lottery incentives)

- **Migration status** at the 2nd follow up
  → In-person tablet survey
  → Phone surveys with respondent and her contacts
  → School survey with students and administration

Administrative data from the Ministry of Education on the characteristics of the schools in the sample
Migration Intentions

Questions inspired by Gallup World Survey:

- Would you move permanently to another country (where and why) (*WISH*).
- Plans to migrate in the next 12 months (*PLAN*).
- Made preparation for the move (i.e. saving money, contact relatives abroad, etc..) (*PREPARE*)
Migration Intentions

Questions inspired by Gallup World Survey:

▶ Would you move permanently to another country (where and why) \((WISH)\).
▶ Plans to migrate in the next 12 months \((PLAN)\)
▶ Made preparation for the move (i.e. saving money, contact relatives abroad, etc..) \((PREPARE)\)

Questions were posed hierarchically, with the structure below:

```
ALL
   WISH = 1
      PLAN = 1
         PREPARE = 1
      PLAN = 0
         PREPARE = 0
   WISH = 0
```

Data
Risk Beliefs

"Imagine 100 people exactly like you undertaking migration through a given route, how many of those 100 individuals would see the realization of..":

▶ being beaten
▶ forced to work
▶ kidnapped
▶ death before boat
▶ death boat
▶ sent back
▶ journey duration
▶ journey cost

We pose same questions for different routes and also asked their preferred route
Economic Beliefs

"Imagine 100 people exactly like you undertaking migration through a given route, how many of those 100 individuals would see the realization of..”:

- reached the intended destination in Europe
- finding a job
- continuing studies
- becoming a citizen
- being sent back
- receiving financial help by the government
- percentage favoring migration
- expected wage
- cost of living
Treatment schools: Geographical balance

- 160 schools randomly divided in 4 equally-sized groups: control, T1 (risk info), T2 (econ info), T3 (both info)
## Panel A: Socio-economic characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control</th>
<th>Risk-Control</th>
<th>Econ-Control</th>
<th>Double-Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>0.484</td>
<td>0.010</td>
<td>-0.009</td>
<td>-0.001</td>
</tr>
<tr>
<td></td>
<td>(0.500)</td>
<td>(0.022)</td>
<td>(0.022)</td>
<td>(0.020)</td>
</tr>
<tr>
<td>Student in 12\textsuperscript{th} grade</td>
<td>0.250</td>
<td>0.019</td>
<td>0.020</td>
<td>0.025</td>
</tr>
<tr>
<td></td>
<td>(0.433)</td>
<td>(0.027)</td>
<td>(0.029)</td>
<td>(0.032)</td>
</tr>
<tr>
<td>Student in 13\textsuperscript{th} grade</td>
<td>0.369</td>
<td>0.008</td>
<td>-0.001</td>
<td>-0.002</td>
</tr>
<tr>
<td></td>
<td>(0.483)</td>
<td>(0.040)</td>
<td>(0.039)</td>
<td>(0.042)</td>
</tr>
<tr>
<td>Wealth index (PCA)</td>
<td>-0.006</td>
<td>-0.013</td>
<td>0.026</td>
<td>0.013</td>
</tr>
<tr>
<td></td>
<td>(1.568)</td>
<td>(0.107)</td>
<td>(0.093)</td>
<td>(0.098)</td>
</tr>
<tr>
<td>Mother worked in the last 12 months</td>
<td>0.346</td>
<td>-0.012</td>
<td>0.020</td>
<td>-0.007</td>
</tr>
<tr>
<td></td>
<td>(0.476)</td>
<td>(0.024)</td>
<td>(0.022)</td>
<td>(0.021)</td>
</tr>
<tr>
<td>Mother no education</td>
<td>0.579</td>
<td>-0.040</td>
<td>-0.016</td>
<td>-0.038</td>
</tr>
<tr>
<td></td>
<td>(0.494)</td>
<td>(0.033)</td>
<td>(0.028)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>Father no education</td>
<td>0.409</td>
<td>0.004</td>
<td>-0.025</td>
<td>-0.027</td>
</tr>
<tr>
<td></td>
<td>(0.492)</td>
<td>(0.032)</td>
<td>(0.031)</td>
<td>(0.028)</td>
</tr>
</tbody>
</table>

## Panel B: Migration intentions and beliefs

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control</th>
<th>Risk-Control</th>
<th>Econ-Control</th>
<th>Double-Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wishing to migrate</td>
<td>0.299</td>
<td>-0.007</td>
<td>-0.002</td>
<td>0.010</td>
</tr>
<tr>
<td></td>
<td>(0.458)</td>
<td>(0.023)</td>
<td>(0.024)</td>
<td>(0.026)</td>
</tr>
<tr>
<td>Planning to migrate</td>
<td>0.192</td>
<td>0.009</td>
<td>0.007</td>
<td>0.024</td>
</tr>
<tr>
<td></td>
<td>(0.394)</td>
<td>(0.021)</td>
<td>(0.020)</td>
<td>(0.023)</td>
</tr>
<tr>
<td>Preparing to migrate</td>
<td>0.051</td>
<td>0.002</td>
<td>0.005</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>(0.220)</td>
<td>(0.010)</td>
<td>(0.010)</td>
<td>(0.010)</td>
</tr>
<tr>
<td>Risk beliefs index for Italy (PCA)</td>
<td>-0.003</td>
<td>-0.019</td>
<td>0.033</td>
<td>-0.039</td>
</tr>
<tr>
<td></td>
<td>(1.819)</td>
<td>(0.081)</td>
<td>(0.091)</td>
<td>(0.095)</td>
</tr>
<tr>
<td>Risk beliefs index for Spain (PCA)</td>
<td>0.010</td>
<td>-0.073</td>
<td>0.016</td>
<td>-0.020</td>
</tr>
<tr>
<td></td>
<td>(1.938)</td>
<td>(0.080)</td>
<td>(0.090)</td>
<td>(0.092)</td>
</tr>
<tr>
<td>Economic beliefs (PCA)</td>
<td>0.050</td>
<td>-0.067</td>
<td>-0.098</td>
<td>-0.022</td>
</tr>
<tr>
<td></td>
<td>(1.731)</td>
<td>(0.090)</td>
<td>(0.091)</td>
<td>(0.100)</td>
</tr>
</tbody>
</table>

**Observations**

|                | 1,803   | 3,651       | 3,704        | 3,555          |
Beliefs at Baseline

Responses at baseline for a subset of questions: ‘optimistic’ answers shaded in a darker blue. Dashed line is information announced.
# Migration: A relevant topic with information gaps

<table>
<thead>
<tr>
<th>Information about migration at baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss about migration w/ friends/siblings last week</td>
</tr>
<tr>
<td>Heard about boats transporting migrants from Libya to Italy</td>
</tr>
<tr>
<td>Heard about boats transporting migrants from Morocco/Algeria to Spain</td>
</tr>
<tr>
<td>N. of classmates who migrated</td>
</tr>
<tr>
<td>N. of contacts abroad</td>
</tr>
<tr>
<td>True that a poor Guinean has the right to asylum</td>
</tr>
<tr>
<td>True that baby born in Italy has <em>ius soli</em></td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

Impact on risk beliefs  Impact on econ beliefs
Impact on Migration Intentions

1st follow up

OLS estimates for different outcomes/treatment, with confidence intervals. Errors are clustered at school level, lagged outcome include in regression, with stratification dummy.

Impact on risk beliefs  Impact on econ beliefs
Impact on Non-Probability Risk Perceptions

Impact on risk beliefs

OLS estimates for different outcomes/treatment, with confidence intervals. Errors are clustered at school level, lagged outcome included in regression, with stratification dummy.
Impact on Non-Probability Economic Perceptions

1st follow up

OLS estimates for different outcomes/treatment, with confidence intervals. Errors are clustered at school level, lagged outcome included in regression, with stratification dummy.

Impact on econ beliefs
## Impact on migration, HTE by beliefs

<table>
<thead>
<tr>
<th></th>
<th>(1) ITT</th>
<th>(2) ITT</th>
<th>(3) ITT</th>
<th>(4) IV</th>
<th>(5) IV</th>
<th>(6) IV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T1 - Risk</strong></td>
<td>-0.165</td>
<td>-0.209</td>
<td>-0.247</td>
<td>-0.204</td>
<td>-0.252</td>
<td>-0.287</td>
</tr>
<tr>
<td></td>
<td>(0.974)</td>
<td>(0.974)</td>
<td>(0.942)</td>
<td>(1.237)</td>
<td>(1.236)</td>
<td>(1.196)</td>
</tr>
<tr>
<td><strong>T2 - Econ</strong></td>
<td>-0.186</td>
<td>-0.238</td>
<td>-0.328</td>
<td>-0.244</td>
<td>-0.308</td>
<td>-0.447</td>
</tr>
<tr>
<td></td>
<td>(0.600)</td>
<td>(0.604)</td>
<td>(0.576)</td>
<td>(0.788)</td>
<td>(0.792)</td>
<td>(0.758)</td>
</tr>
<tr>
<td><strong>T3 - Double</strong></td>
<td>0.792</td>
<td>0.763</td>
<td>0.681</td>
<td>0.993</td>
<td>0.968</td>
<td>0.833</td>
</tr>
<tr>
<td></td>
<td>(1.384)</td>
<td>(1.391)</td>
<td>(1.403)</td>
<td>(1.685)</td>
<td>(1.692)</td>
<td>(1.709)</td>
</tr>
<tr>
<td><strong>T1 - Risk * Underestimates risk</strong></td>
<td>-0.704</td>
<td>-0.687</td>
<td>-0.677</td>
<td>-1.306</td>
<td>-1.304</td>
<td>-1.293</td>
</tr>
<tr>
<td></td>
<td>(0.957)</td>
<td>(0.959)</td>
<td>(0.956)</td>
<td>(1.267)</td>
<td>(1.266)</td>
<td>(1.262)</td>
</tr>
<tr>
<td><strong>T2 - Econ * Overestimates econ</strong></td>
<td>0.753</td>
<td>0.829</td>
<td>0.815</td>
<td>0.538</td>
<td>0.626</td>
<td>0.597</td>
</tr>
<tr>
<td></td>
<td>(0.717)</td>
<td>(0.730)</td>
<td>(0.728)</td>
<td>(1.041)</td>
<td>(1.064)</td>
<td>(1.055)</td>
</tr>
<tr>
<td><strong>T3 - Double * Und. risk or over. econ</strong></td>
<td>-0.882</td>
<td>-0.850</td>
<td>-0.759</td>
<td>-1.475</td>
<td>-1.453</td>
<td>-1.339</td>
</tr>
<tr>
<td></td>
<td>(1.332)</td>
<td>(1.332)</td>
<td>(1.337)</td>
<td>(1.598)</td>
<td>(1.599)</td>
<td>(1.605)</td>
</tr>
<tr>
<td>Underestimates risk</td>
<td>-0.123</td>
<td>-0.129</td>
<td>-0.112</td>
<td>-0.115</td>
<td>-0.120</td>
<td>-0.0986</td>
</tr>
<tr>
<td></td>
<td>(0.510)</td>
<td>(0.519)</td>
<td>(0.517)</td>
<td>(0.508)</td>
<td>(0.515)</td>
<td>(0.514)</td>
</tr>
<tr>
<td>Overestimates econ</td>
<td>-0.311</td>
<td>-0.340</td>
<td>-0.293</td>
<td>-0.306</td>
<td>-0.334</td>
<td>-0.283</td>
</tr>
<tr>
<td></td>
<td>(0.323)</td>
<td>(0.317)</td>
<td>(0.315)</td>
<td>(0.320)</td>
<td>(0.314)</td>
<td>(0.312)</td>
</tr>
</tbody>
</table>

### H0: T1 + T1 * Underestimates risk = 0
- 0.03002
- 0.002583
- 0.002295
- 0.00473
- 0.00356
- 0.00311

### H0: T2 + T2 * Overestimates econ = 0
- 0.31153
- 0.30335
- 0.35420
- 0.71453
- 0.69866
- 0.84385

### H0: T3 + T3 * 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

### N
- 7150
- 7150
- 7150
- 7150
- 7150
- 7150

### Mean dep. var. control
- 1.56%
- 1.56%
- 1.56%
- 1.56%
- 1.56%
- 1.56%

→ T1 influences students with optimistic beliefs at baseline (82% in T1)