Modeling International Migrant Flows: Theory, Evidence and Forecasts

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Project Team Profile

• PI: David Leblang, University of Virginia
• Project Start Date: July 2017
• Anticipated End Date: July 2019
• Project personnel:
  • Melissa Henriksen, Project Manager
  • Kirsten Gelsdorf, Subject Matter Expert
  • Benjamin Helms, Graduate Research Assistant/Project Administrator
  • Rebecca Brough, Alexa Iadarola, Alicia Smith, Eric Xu, Research Assistants
  • Abhiraj Deshpande, Software Developer
Problem Statement

• What are the factors driving migration to the United States?
  • Do they vary over time/region of origin?
  • Do they vary by type of migrant (legal, illegal, UAM)?

• What policy levers can help decrease the demand for immigration into the United States?
  • Which are most cost-effective?
Beneficiary / End User Profile: Jobs

- Analysts at CBP’s OIT and USBP Analysis Division
- Analysts at DHS’s OIS
- Legislative staff drafting policy
- USAID examining effectiveness of development assistance
Beneficiary / End User Profile:
Desired Gains

• Better understanding of factors “pushing” flows of legal, illegal and unaccompanied minors to the US.

• Development of a forecasting tool to assess the effect of:
  • Environmental, economic, and political shocks in driving migration
  • Policies designed to mitigate these shocks
Beneficiary / End User Profile: Pain Points

• Current lack of knowledge with regard to:
  • Extant data availability (confirmed via OIS meeting)
  • Lack of data means no comprehensive understanding of push factors
  • Which, in turn, means no way to evaluate policy alternatives
  • And no way to predict migrant inflows.
Products & Services

• Delivery to end user of:
  • Comprehensive and readily expandable database of migrant inflows and correlates from 1990-2015
  • Development of underlying model of push factors.
  • Generation of forecasting tool
  • All in an easily accessible GUI
Products & Services

DATA

MODEL

USEFUL RESULTS

Earthquakes
Gains Created

• What are the gains achieved and how are they measured?
  • Simple, intuitive tool to forecast migration into the US given shocks
  • Statistical model to assess effectiveness of policy interventions
  • Rigorous statistical technique to estimate unauthorized migration
Pains Alleviated

• What are the pains alleviated and how are they measured?
  • Greater predictive capacity \( \rightarrow \) effective government response
  • Informed policy response to potential and actual migration push factors
Key accomplishments

- Initial database construction from publicly available data sources
- Model-building, focused initially on Western Hemisphere migration. Some important determinants:
  - Natural disasters
  - Conflict and civil war
  - Poverty & education
Transition Pathways

• Deliverable is GUI and forecasting tool
  • Will work with end-user on initial development of GUI
  • Solicit input from end-users regarding face validity of underlying forecasting model
  • Initial model and tool “test-driven” at end of year 1.
Transition Engagement

• More knowledge of transition engagement and challenges after quarterly meeting next week.
Conclusions

• Identification of the timing of migration relative to the onset of a particular type of underlying cause will allow forecasting of future migrant flows in response to changes that occur in potential sending countries.

• The security of the United States (and allies) can be enhanced by a better understanding of the causes of emigration.

• This is the intended outcome of the project
Disclaimer

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