

Deterring Emigration with Foreign Aid: An Overview of Evidence from Low-Income Countries

Michael A. Clemens and Hannah M. Postel*

Abstract

In response to the recent migrant and refugee crisis, rich countries have redoubled policy efforts to deter future immigration from poor countries by addressing the “root causes” of migration. We review existing evidence on the extent and effectiveness of such efforts. First, development aid disbursements do not generally follow “root causes” rhetoric. The sectoral distribution of aid to migrant-origin countries does not significantly differ from its distribution in other countries. Second, the evidence suggests that the capacity of development assistance to deter migration is small at best. Aid can only encourage economic growth, employment, and security to a limited degree. Beyond this, successful development in almost all formerly-poor countries has produced an increase in emigration. Third, this evidence implies that donors could achieve greater impact by leveraging development aid not to deter migration but to shape it for mutual benefit.

* Michael A. Clemens, Center for Global Development and IZA; Hannah M. Postel, Princeton University

We acknowledge helpful discussions with an anonymous reviewer and with Arjan de Haan, Virginie de Ruyt, Louise Fox, Fulgencio Garrido-Ruiz, Renate Hahlen, Jeremy Konyndyk, David Lam, Jerome Lebouc, John Maluccio, Simon Mordue, Maryam Nagsh Nejad, Owen Ozier, and Stefano Signore, but any errors are the authors’ alone. This work was supported by the DFID-IZA Program on Growth and Labor Markets in Low-Income Countries, the Open Philanthropy Project, and the Eunice Kennedy Shriver National Institute of Child Health and Human Development of the National Institutes of Health under Award Number P2CHD047879. The paper represents the views of the authors alone and not necessarily those of the authors’ employers or funders.

Michael A. Clemens and Hannah M. Postel. 2018. “Deterring Emigration with Foreign Aid: An Overview of Evidence from Low-Income Countries.” CGD Policy Paper. Washington, DC: Center for Global Development. <https://www.cgdev.org/publication/deterring-emigration-foreign-aid-overview-evidence-low-income-countries>

JEL Codes: F22, F35, O15

CGD is grateful for contributions from the Open Philanthropy Project in support of this work.

Center for Global Development
2055 L Street NW
Fifth Floor
Washington DC 20036
202-416-4000
www.cgdev.org

This work is made available under
the terms of the Creative Commons
Attribution-NonCommercial 4.0
license.

Contents

1 Targeting aid toward the “root causes” of migration.....	2
1.1 What “root causes,” and what types of interventions are used?.....	2
1.2 Do disbursements reflect rhetoric?	3
2 The effect of aid on conditions in migrant-origin countries.....	5
3 The effect of development on migration	8
3.1 Sustained economic development tends to encourage emigration	8
3.2 Greater short-term income diversification tends to discourage emigration	11
4 The overall effect of aid on emigration	13
5 Four lessons	16
References.....	20
Figures and tables.....	24

After irregular migration to Europe shot upward in 2015, development assistance agencies acquired a renewed mandate: to deter migration from poor countries. “To address the root causes of migration, we decided to double our direct bilateral development cooperation,” the Austrian government has said. “I want to use our aid budget,” says Britain’s Minister of International Development, for “creating jobs in poorer countries so as to reduce the pressure for mass migration to Europe.” The European Union has directed €3 billion toward “addressing the root causes of destabilization, forced displacement and irregular migration” in Africa.¹ These efforts follow decades of recommendations by other policymakers to deter migration with aid, both in the United States (Asencio et al. 1990) and Europe (Khoudour-Castéras 2009). Such policies seem intuitive: if there are more jobs and less violence at home, people may feel less compelled to move. But policy has rarely rested on evidence that aid does, in fact, substantially deter migration.

This paper reviews existing evidence on whether development aid has historically deterred emigration from poor countries, and draws lessons for policymakers and researchers regarding its potential to do so in future. It first introduces the types of projects involved in ‘root causes’ aid efforts, and discusses whether donor country aid disbursements have reflected public rhetoric on this topic. It then tests two requirements for the success of these policies: Aid must substantially change conditions in migrant origin countries, and those changing conditions must cause fewer people to migrate. The paper then assesses the few existing studies on the overall macro-level relationship between aid and migration, and concludes with four lessons for those who manage and study these aid efforts. We consider only development assistance throughout; though post-crisis humanitarian aid could also affect migration decisions, it is not the aim of the projects under consideration here.

¹Quotation by Sebastian Kurz, at the time Austrian Foreign Minister, taken from remarks at the United Nations: “Statement by H.E. Sebastian Kurz, Federal Minister for Europe, Integration and Foreign Affairs of the Republic of Austria, General Assembly High-Level Meeting on Addressing Large Movements of Refugees and Migrants, Roundtable 2, New York, 19 September 2016”. UK Minister of International Development Priti Patel quoted in James Slack, “My Fury at Our Wasted Aid”, *Daily Mail*, 13 September 2016. Statement on the purpose of the EU Emergency Trust Fund for Africa from: European Commission, 2017, *EU Emergency Trust Fund for Africa: Fact Sheet*, Brussels: European Commission.

1 Targeting aid toward the ‘root causes’ of migration

The idea that development assistance can reduce migration pressures in developing countries has been widespread in policy circles for the past few decades. One of the largest expected benefits from the North American Free Trade Agreement (NAFTA) was to be an accompanying decrease in migration as economic conditions in Mexico improved. More recently, the U.S. State Department requested additional funds to deal with a surge of Central American child migrants, to “address the underlying factors driving migration or be prepared for what is likely to be an ongoing cyclical phenomenon—with significant impact and cost to the United States” (Jacobson 2015, 2).

Addressing the ‘root causes’ of migration has also been a main feature of development agencies across Europe since the 1990s. It continues to shape aid policy today (Knoll and Sherriff 2017). The new European Union Trust Fund for Africa is a cornerstone of the European response to the recent influx of asylum-seekers from Africa and the Middle East. Such programming often involves significant funding to facilitate return migration flows and build ‘migration management’ capacity in origin countries. This paper focuses solely development aid programming.

1.1 What ‘root causes’, and what types of interventions are used?

What exactly are these ‘root causes of migration’ and what sorts of aid programming are expected to mitigate them? The EU Trust Fund mentioned above focuses on four key policy areas: employment creation, specifically for women and youth; basic local-level service provision; migration management; and governance, especially as regards conflict prevention and including border management. Some mention specific programs—such as vocational training, food security, and rule of law capacity building—but many of the program documents rely on broader terms like ‘resilience building’ and ‘migration management’ as mentioned above.

It can be difficult to ascertain the types and mandates of specific projects that fall under these broad umbrellas. The EU Trust Fund Sahel and Lake Chad window has designed a “situation index” designed to characterize individual country contexts along five axes: food insecurity,

conflict risk, irregular migrants, socioeconomic vulnerability, and displaced people ([European Commission 2016](#)). But it is unclear whether specific interventions are meant to be targeted along these lines or if its main role is building situational awareness. Other parts of the EU Trust Fund's work, such as the North Africa window, focus almost exclusively on 'migration management.'

The United States Agency for International Development's Central American Regional Security Initiative (CARSI) has a similar mandate in Honduras, El Salvador, and Guatemala, to address the "key factors... contributing to the migration of unaccompanied, undocumented minors to the United States" ([Meyer and Seelke 2015](#), 32). Economic development projects are focused on education, vocational training, and employment. Law and order programming is targeted to border security, anti-trafficking and anti-gang programs, and counternarcotics activities. As with the EU Trust Fund, more granular information is difficult to find. In general, publicly available information on these projects is relatively high-level; likely only funders and implementing partners are aware of specific on-the-ground programming.

1.2 Do disbursements reflect rhetoric?

It is largely unknown whether governments have incorporated these public statements into aid commitments, and whether disbursements reflect the amount committed. Put simply, countries must first receive development aid for it to have any effect. Do migrant-sending countries actually receive overall more aid than other countries, and/or is this aid composed of different specific elements reflecting root causes rhetoric? We cannot be sure *ex ante* that public commitments have translated into on-the-ground expenditures. The 'policy gap' between rhetoric and practice is especially severe for migration policy ([Czaika and de Haas 2013](#)). For example, the final version of the Central America assistance bill referenced above approved only about 50% of the budget request. The literature on whether aid expenditures reflect 'root causes' rhetoric is slim.

Disentangling the complicated rationale behind aid disbursements is not simple, and falls outside the scope of this paper. A large literature has assessed the motivations of development aid provision, typically juxtaposing donor self-interest with recipient development need. A small

subset therein has highlighted two major mechanisms through which increased migration flows to a specific donor country could impact ensuing development aid spending decisions: first, the desire to limit future immigration by reducing migration drivers (the main focus of this paper) and second, successful lobbying by the local diaspora to support their home country.

In general, this limited literature supports the premise that important immigrant origin countries receive more development aid. [Bermeo and Leblang \(2015\)](#) find that for the median origin country in their panel, each additional migrant that arrives in the OECD is associated with a US\$242 increase in the origin's development aid receipts. They find evidence in support of both mechanisms above. [Vazquez and Sobrao \(2016\)](#) take on the case of Spain, finding that a one percent increase in the immigrant population from a particular origin country is associated with an 18% increase in the probability of being a Spanish aid recipient, and a 0.05% increase in the amount of Spanish ODA (Overseas Development Assistance) received. [Czaika and Mayer \(2011\)](#) investigate the differential impacts of asylum-seeker and refugee flows on aid expenditures, hypothesizing that donor state response will vary depending on immigrant legal status. In line with migration deterrence priorities, external (cross-border) movements provoke larger aid responses than internal displacement. When long-term development aid is distributed to address refugee populations overseas, it is mainly directed to countries of origin rather than countries of first asylum. Finally, asylum-seekers—who physically arrive at the borders of Western donor countries—stimulate the greatest aid response yet. The authors identify Norway, Austria, and the United States as countries with a particularly “strong migration-sensitive aid allocation” ([Czaika and Mayer 2011](#), 462).

All of the above analyses consider only aggregate aid disbursements, which have limitations in assessing aid focused on specific sectors. A central tenet of ‘root causes’ rhetoric is the importance of targeting aid to the development sectors most relevant to migration motivations. Therefore, research needs to move beyond overall aid numbers to understand the mechanisms behind this programming. A few papers find at least some support for the premise that aid ‘baskets’ in general—outside the ‘root causes’ context—do vary across aid recipient countries based on donor priorities and perceptions ([Thiele et al. 2007](#), [Nielsen 2010](#), [Bermeo 2016](#)).

But to our knowledge, no study has taken a similarly granular approach to assessing aid targeted

at ameliorating the root causes of migration. As a preliminary approach to this question, we compile an index of ‘migration-relevant’ aid, drawing on specific program types detailed for both the EU Trust Fund and the 1990 report of the US Commission for the Study of International Migration and Cooperative Economic Development (notably entitled “Unauthorized Migration: An Economic Development Response”). These interventions include vocational training, small and medium enterprise support, agricultural development, environmental preservation, urban development, food aid, and disaster preparedness efforts. [Figure 1](#) shows the average fraction of total development aid allocated to this ‘root causes’ programming across five different groups: all aid recipients, top origin countries of asylum-seekers in Development Assistance Committee (DAC) donor countries in absolute terms, top origin countries of asylum-seekers in DAC donor countries relative to origin country population, top origin countries of the total migrant stock in DAC donor countries in absolute terms, and top origin countries of the total migrant stock in DAC donor countries relative to origin country population.² The bars extending above and below each average show the 95% confidence interval on the estimated mean.

This simple and broad assessment offers no clear evidence that aid targeted at reducing the root causes of migration is distributed systematically differently across these different groups, especially compared to the global average. In other words, aid targeted for sectors viewed as ‘migration-relevant’ does not appear to flow in larger measure to countries viewed as ‘migration-relevant’. Further research might add nuance to this portrait, but even these broad comparisons offer reason to doubt the existence of a worldwide wave of ‘root causes’ aid to the countries where migration is of most concern to donors.

2 The effect of aid on conditions in migrant-origin countries

To deter migration, aid must not only target development outcomes that could shape migration in principle. Aid must also substantially affect those outcomes ([Gregl and Logožar 2017](#)). These effects could include contributing to the long-run growth of the economy, creating youth employment, and reducing conflict. The literature assessing aid’s effects on these outcomes is extensive. We will not summarize it. Rather, we will ask: Does the aid effectiveness literature offer

²Data on DAC Foreign Assistance were sourced from the [OECDStat Creditor Reporting System](#), and migrant stocks and asylum-seeker inflows by nationality from the [OECDStat International Migration Database](#).

clear evidence that aid (if disbursed accordingly) can affect conditions in migrant-origin countries *to a degree* that is sufficient to deter migration? Here we focus on four plausibly desired outcomes mentioned above: overall economic growth, job creation for youth, conflict resolution, and human rights. We expect that other aid sectors would demonstrate similar trends.

First, simply assume that aid can increase economic growth. This allows us to ask *how long* it would likely take for aid to deter emigration by this channel. The exercise is shown in [Figure 2](#).³ As we will examine in the next section, various studies have found little systematic deterrent effect of economic growth on emigration until poor countries reach roughly PPP\$8,000–10,000 in GDP per capita ([Berthélemy et al. 2009](#); [Clemens 2014](#); [Dao et al. 2016](#); [OECD 2017](#), 118). The figure shows that today’s poorest quintile of countries, if they continued to grow at their historical rate of growth (over the last 24 years), would only reach PPP\$8,000 in the year 2198. If development aid could systematically raise their economic growth by one percentage point every year—more than a doubling of the historical rate—it would take until the year 2097. If aid could raise growth by two percentage points—a tripling—it would take until the year 2067.

And can development aid typically raise growth by these one or two percentage points, in a large group of the poorest countries over generations? This is far from well-established. The research literature has not settled on a consensus that past development aid has had *any* positive growth impact on average ([Qian 2015](#)). Many rigorous studies fail to detect any growth effect of aid. Ignore this controversy for a moment and consider the magnitude of the effect, even in the literature that does find a positive impact. For example [Clemens et al. \(2012\)](#) find that raising growth by 1 percentage point per year in the average recipient would require on the order of 10% of GDP in aid. That is much higher than any amounts of aid currently contemplated with the goal of deterring migration; for example, USAID’s Central American Regional Security Initiative dedicated 0.2% of GDP to economic growth programming explicitly intended to reduce violence driving migration in El Salvador in 2015 ([Washington Office on Latin America 2017](#)). And according to the exercise above, even that high level of growth would need to be sustained for three generations (until 2097) before it would even *begin* to deter emigration from the average poor country.⁴

³GDP data from [Penn World Tables, version 9.0](#).

⁴In those studies that do find a positive effect of aid on growth, larger effect sizes exist. For example, [Galiani et al. \(2017\)](#) find that raising growth by 1 percentage point would only require on the order of 3% of GDP in sustained aid.

The research literature similarly invites skepticism about the ability of development aid to cause large changes in youth employment. [McKenzie \(2017, 20\)](#) reviews existing research on poor-country governments' active labor market policies—efforts to increase both the number and quality of jobs. He finds that this research “shows these policies to generally be far less effective than policy makers, program participants, and economists typically expect.” There is no indication that active labor market policies supported by aid are typically more effective than those that are not. The least-successful programs have focused on job-training and matching; the most successful programs have assisted firms in overcoming regulatory barriers to hiring and assisted workers in leaving geographic areas where employment is scarce for more promising domestic destinations. There are exceptional cases where intensive job-training through the best training centers has been found to substantially reduce youth unemployment (e.g. [Alfonsi et al. 2017](#)). But in no case has active labor market policy been shown capable of large reductions in youth unemployment at scale ([Fox and Kaul 2017](#)).

Moreover, the literature offers scant evidence that aid projects to date have been a systematically effective tool to mitigate civil conflict that could spark emigration. [Zürcher \(2017\)](#) reviews all 19 existing studies on this topic that deploy some strategy for causal identification—including single-country studies (in such varied contexts as Afghanistan and Colombia) and cross-country studies. He concludes, “The evidence for a violence-dampening effect of aid in conflict zones is not strong. Aid in conflict zones is more likely to exacerbate violence than to dampen violence. A violence-dampening effect of aid appears to be conditional on a relatively secure environment for aid projects to be implemented.” This is true of all six types of aid-funded interventions he investigates—including conditional cash transfers, humanitarian assistance, and employment promotion. More research is needed; it may be that aid protects relatively stable regions from slipping into conflict, even if it is not frequently successful in mitigating ongoing conflict.

Finally, while there is some evidence that development aid can have a positive effect on human rights and democracy, even that effect is small and dissipates quickly ([Carnegie and Marinov 2017](#)). The literature does not offer evidence that development aid can cause large, sustained improvements in human rights and democracy systematically across numerous migrant-origin

But their research design implies that this estimate of the effect size is externally valid only for countries surpassing the borrowing cutoff for the World Bank's concessional lending window. In other words, it applies to countries that have already succeeded in growing to the middle-income level, and cannot be applied to countries that remain poor.

countries.

None of this implies that aid *cannot* affect conditions in poor countries that spur migration, in any measure. Evaluations of aid effectiveness are retrospective, their results conditional on how aid was given in the past. [Chandy et al. \(2017\)](#) identify several ways for aid in fragile states to be more effective, including shifting from bilateral funding and fragmented projects toward multilateral agreements and programmatic assistance. But the evidence to date does carry one clear implication. The underlying rationale of ‘root causes’ aid programming relies on claims that the *magnitude* of aid’s effect in specific sectors is sufficient to greatly reduce emigration. Such claims have not met this burden of proof. The evidence we have implies that aid would need to act in unprecedented ways, at much higher levels of funding, over generations, to greatly affect some of the most important plausible drivers of emigration. That implies a case for experimentation and patience, but not confidence in a surge of aid to end a crisis.

3 The effect of development on migration

Even if we knew that aid greatly affected outcomes that theoretically drive increased emigration, we would still need evidence that those outcomes do in fact drive migration behavior. A helpful starting point is to understand two critical ways that many people in poor countries use migration to improve their economic lives: investment and insurance ([Banerjee and Duflo 2011](#), 142, 231).

3.1 Sustained economic development tends to encourage emigration

First, poor families use migration as an investment. Among other things, migration is an exchange of substantial up-front costs for a stream of future benefits ([Schultz 1972](#), 4; [Burda 1995](#); [de Haas 2010](#)). The costs include not just the direct costs of moving but foregone earnings at home and missed interactions with family. The benefits typically include large but delayed increases in income both for migrants ([Clemens et al. 2016](#)) and their families ([Gibson and McKenzie 2014](#); [Mergo 2016](#)).

This immediately suggests that the effect of development on migration can be complex, for the same reasons that development has complex effects on other kinds of investment. For example, greater economic opportunity for people without a college degree might reduce the need for workers to invest in college education, but also increases their means to invest in college education. For similar reasons, greater economic opportunity at home might reduce the incentive for workers to invest in migrating abroad for work, but also increases their ability to make that investment. Which of these forces dominates is an empirical question.

It is now clear that emigration rates in middle-income countries are typically much higher than in poor countries (de Haas 2007; Clemens 2014; Dao et al. 2016; Carling and Talleraas 2016; OECD 2017, 118). Economic development has also been *positively* associated with major asylum-seeker outflows over the medium and long term (Rotte et al. 1997; Vogler and Rotte 2000). Additional disposable income causes many poor families to invest it in *more* migration (e.g. Angelucci 2015; Bazzi 2017).

This suggests that in poor countries, development does more to encourage migration than to deter it. Figure 3a shows this relationship for the year 2013.⁵ Countries with GDP per capita of US\$5,000–10,000 at purchasing power parity have, on average, roughly triple the emigrant stock of countries below US\$2,000. Here, ‘emigrant stock’ refers to the number of people born in a country but living outside it, divided by the population of the origin country. Only in countries above US\$10,000 is there a clear negative relationship between real GDP per capita and emigrant stocks. This tendency for emigration to first rise and then fall with rising GDP per capita was first termed the ‘mobility transition’ (Zelinsky 1971).

This pattern is counterintuitive for many who first encounter the evidence. The most basic economic theories of migration imply that greater economic opportunity at home will reduce the incentive and thus the tendency to emigrate, all else equal (Sjaastad 1962). But all else is *not* equal. As development proceeds, human capital accumulates, connections to international networks increase, fertility shifts, aspirations rise, and credit constraints are eased. All of these changes tend to raise emigration. The most important of these factors appear to be rising education levels and international connections, which both inspire and facilitate emigration (Dao et al.

⁵GDP data from Penn World Tables, version 9.0; migration data from the United Nations Global Migration Database.

2016). Economic development is also often accompanied by falling child mortality rates while fertility rates are still high, leading to a surge in the number of young workers who have a high tendency to migrate. Greater disposable income means greater ability to pay the direct costs of migration, but also greater ability to invest in things that both inspire and facilitate migration—such as Internet access, language skills, overseas business connections, and overseas tourism.

Does the positive relationship between development and migration in poor countries accurately describe the *effect* of development on migration? One possible concern about the evidence in [Figure 3a](#) is that it shows a cross-sectional relationship at a single moment in time. In principle, this correlation could conceal parts of the causal relationship. It could conceal long-term effects of economic growth on migration by only showing a short-term relationship. It could also conceal unobserved traits of today's low-income countries that might cause them to follow a different path than today's middle-income countries did.

But the data do not support either of these possibilities. [Figure 3b](#) shows the relationship between the *change* in real GDP per capita between 1960 and 2013 and the *change* in emigrant stock over the same period. It shows all countries on earth with comparable data from both years. Each arrow represents the path of one country, from 1960 to 2013. The swath of arrows pointing up and to the right, around the middle of the figure, shows that emigration *rose* in almost all countries that grew into middle-income in this period. In the 71 countries that grew to middle-income or higher between 1960 and 2013, 67 had a concurrent rise in the emigrant share.⁶ For poor countries that remained poor, there was no clear rise.

In other words, the path followed by individual countries over time has resembled the cross-sectional relationship. As poor countries have become rich, almost all have experienced large migration outflows. Rising real incomes at home have gone hand in hand with higher levels of emigration.

A second possible concern about this evidence is that even if emigration rises with future *economic* development, emigration might fall with future improvements in *non-economic* development indicators. For example, better health conditions in poor countries or greater opportunities

⁶There are 109 countries with reliable data on both emigrant stock and Purchasing Power Parity adjusted GDP per capita, in both 1960 and 2013, and 71 of these were above PPP\$5,000 in GDP per capita in the year 2013.

to internally migrate to urban areas could in principle substitute for international migration. But the evidence reveals no such patterns. [Figure 4a](#) shows the cross-country relationship between emigration and child survival—the probability that any given newborn lives to age five.⁷ People have a sharply greater tendency to emigrate from countries where children are *less* likely to die. This is likely because child mortality rates typically fall well before fertility rates fall. So typical countries must proceed quite far through the demographic transition before migration pressure from young workers abates ([Figure 4b](#)). And there is no statistically significant difference between emigration rates in high-urbanization countries versus low-urbanization countries ([Figure 4c](#)). In short, there is little sign that emigration is lower in poor countries with generally better public health or generally greater access to urban living, and little reason to believe that changes in such indicators will broadly and systematically deter emigration.

This evidence strongly suggests that in poor countries, development facilitates investment in emigration much more than it deters investment in emigration. But investment is only one way in which poor families use migration.

3.2 Greater short-term income diversification tends to discourage emigration

Poor families also use migration as a form of insurance. It helps them to diversify income across members of the household, making the family less vulnerable to shocks like job loss or sudden sickness. Migration also helps diversify income over time, reducing the risk of dire lean periods for the whole household ([Chen et al. 2003](#); [Giesbert 2007](#); [Shonchoy 2011](#); [Marchetta 2013](#); [Bignebat and Sakho-Jimbira 2013](#); [Bryan et al. 2014](#)).

This too suggests that the effect of greater economic development on migration decisions can be complex. More stable and predictable economies can reduce the need to insure against negative shocks, but as aspirations rise, so can the need for insurance. For example, a family of subsistence agriculturists may perceive less harm from pulling a child out of sixth grade to work due to a parent's job loss than would a middle-class family forced to withdraw their most capable child from 12th grade for the same reason. Beyond this, as above, greater prosperity can also raise poor

⁷All development indicator data from the [World Bank World Development Indicators](#); migration data from the [United Nations Global Migration Database](#).

families' ability to access the insurance benefits of migration. The net effect of greater prosperity on migration by this channel, too, is ambiguous in principle.

The youth employment rate is a sound, general guide to the probability that any given young person can supplement household income through wage work. And the data show us an unmistakable negative relationship between emigration rates and youth employment. In countries where youth employment exceeds 90%, the emigration rate is half as large as in countries where youth employment is just 70% (Figure 5a).⁸ This trend is evident not just among poor countries but across all countries. When youth employment is very low (40–70%), countries with marginally higher youth employment do not exhibit lower emigration rates. In countries where youth employment stagnates below 70%, marginal increases in job opportunities may both stimulate demand for the insurance of international migration and reduce that demand, to offsetting degrees. At higher rates of youth employment the migration-detering effect appears, on average, to win out.

But it would be inadequate to infer that successful assistance for youth job creation will clearly deter emigration. This is because the greatest engine of youth job creation is economic growth, which in poor countries tends to raise emigration. Figure 5b shows the same relationship in Figure 5a separately for countries in the two lowest quartiles of GDP per capita. For both the poorest quartile (below PPP\$3,954) and the second quartile (between PPP\$3,954 and \$11,717), there is a clear negative relationship between youth employment and emigration. But at any given level of youth employment, emigration is much higher for relatively *richer* countries. The graph shows that countries in the richer quartile with 90% youth employment (e.g. Paraguay) have similar emigration rates to countries in the poorer quartile with 60% youth employment (e.g. Mozambique).

In other words, the evidence suggests that emigration is lower at higher levels of youth employment *for any given level of overall economic development*. Assisting families to diversify their incomes with domestic wage work may substantially reduce migration rates in poor countries that remain poor. But it may not do so in robustly growing and diversifying economies. This

⁸Here the 'youth employment' rate is one minus the unemployment rate among labor force participants age 15–24. It is not the number of working youths per person in this age group, because it omits from the denominator any youths who are not in the labor force (such as students).

has important implications for policymakers, to be discussed in the final section.

4 The overall effect of aid on emigration

The evidence so far urges caution in interpreting any retrospective empirical estimate of the effect of aid on migration. The evidence leaves unclear the mechanism by which aid would systematically reduce migration. We do not have strong evidence that aid has typically been targeted to the sectors or places that most obviously would affect emigration. The ability of aid to cause large, short-term changes in national income, employment, or security is not independently demonstrated. And overall development—better incomes, health, and education—is in fact strongly associated with *rising* emigration.

All of these suggest that, as we review the small literature directly testing the overall effect of aid on migration, we should not have a strong prior that it will detect substantial deterrence of migration by aid. Theoretical models have of course suggested that aid could deter migration by raising incomes at home (Myers and Papageorgiou 2000; Dula et al. 2006), but theory also suggests that any aid-produced rise in incomes at home could facilitate investment in migration by the poor (Gaytán-Fregoso and Lahiri 2000; Kahana 2007).

The first systematic quantitative assessment of the global average effect of aid on emigration is the gravity model in Berthélemy et al. (2009). They find that aid raises net emigration from the average poor country to high-income OECD countries: When aid rises by 10% of GDP this raises the average emigrant stock as a share of population by 1.5 percentage points. They also find that aid shifts the composition of emigration toward low-skill migrants, and that the share of bilateral aid raises emigration about twice as much as aggregate aid. Other research has similarly found aid inflows to correlate *positively* with emigration from sub-Saharan Africa (Mugh 2011) and illegal emigration from Latin America (Bandyopadhyay et al. 2014). Recent and ongoing research has found no robust evidence that total aid inflows to a country reduce refugee outflows from that country (Dreher et al. 2017).⁹

⁹There are many nuances in this work. For example, Dreher et al. (2017) find that *bilateral* aid from a refugee destination may deter refugee flows to that destination only—the opposite of the findings for non-refugee flows, reviewed below, that bilateral aid is positively associated with bilateral migration. They also find that overall aid flows into a country may positively affect refugee outflows in the short term (0–2 years) but negatively affect them in

One complication in interpreting these results, a complication common to many cross-country findings, is the possibility of overcontrolling—that is, holding portions of the relevant causal pathway constant. The regressions used by [Berthélemy et al. \(2009\)](#) control for the aid recipient’s GDP per capita, population, and trade with the migrant destination country. This is a sensible empirical choice because all of these factors can affect migration independently of aid. But it has the drawback that all of these factors can likewise form part of the causal pathway from aid to migration. Thus the coefficient estimates on aid itself show the relationship between aid and migration *other than* any effects that aid might have *via* any effects on economic growth, population growth, or trade. In principle, aid could affect these other factors in ways that reduce migration, or increase it even more.

The broad finding of [Berthélemy et al.](#) has been challenged by a small, recent literature. [Lanati and Thiele \(2017\)](#), also in a gravity model, find no effect of bilateral aid on migration, and a negative effect of aggregate aid on migration.¹⁰ The principal innovation is the use of panel data, allowing fixed effects by origin (and destination). These results are difficult to compare with those of [Berthélemy et al.](#), because [Lanati and Thiele](#) use a different migration variable (gross migration flows annually 1995–2014 rather than net migration stocks in 2000), a different treatment variable (net aid flows rather than gross aid), a different set of countries (28 rather than 22 destination countries), and greatly different regression specifications. One example of how this complicates any comparison: Aid could decrease outmigration but also decrease return migration, such that a negative effect on gross migration is not incompatible with a positive effect on net migration. Given that [Lanati and Thiele \(2017\)](#) theorize any positive effect of aid on gross emigration as the alleviation of credit constraints—a channel that would not affect return migration—it is difficult to understand why the two sets of results would differ so much unless aid does affect return migration.

A further complication is that the use of origin-country fixed effects in [Lanati and Thiele](#) changes the results in ways that are the opposite of what we would expect if the unexpected finding of [Berthélemy et al.](#) arises from misspecification. In principle, it could be that the cross-sectional

the long term (12+ years), though these dynamics may also reflect changing samples at different lag-lengths. Research in this area is ongoing.

¹⁰In the regressions of [Lanati and Thiele \(2017\)](#) the coefficient on bilateral aid is similar in absolute value but opposite in sign to the coefficient on aggregate aid. Because an increase in bilateral aid also raises aggregate aid, this implies that the estimated effect of bilateral aid is indistinguishable from zero.

estimates of [Berthélemy et al.](#) find a positive effect of aggregate aid on migration due to an omitted, time-invariant trait of the migrant origin country that causes it to receive more aid and have more emigration. If this were correct, using migrant origin country fixed effects should remove that bias and cause a negative shift in the coefficient on aid. The opposite occurs: Using migrant origin country fixed effects causes a large positive shift in the aggregate aid coefficient ([Lanati and Thiele 2017](#), Table 1, col. 2–3). This implies that any omitted origin-country fixed effects were biasing the results *against* the finding of [Berthélemy et al.](#) Removing any such bias in the framework of [Berthélemy et al.](#) would thus only strengthen their results. And here again, as in [Berthélemy et al.](#), possible overcontrolling complicates interpretation of the estimates.

Related challenges are faced by the two other cross-country studies of which we are aware, both of which find limited deterrence of migration by aid. [Gamsso and Yuldashev \(2017\)](#) find, in a 25-year panel with country fixed-effects, that aid supporting ‘governance’ (such as ‘legal and judicial development’ and ‘public sector policy and administrative management’) reduces emigration, but no other type of aid does so. This is only about a tenth of all aid ([Gamsso and Yuldashev 2017](#), Table 5). In particular, they find that aid intended to stimulate economic activity does not affect migration. This result is difficult to compare with the other results above because [Gamsso and Yuldashev](#) do not test the effects of aggregate aid. [Murat \(2017\)](#) similarly finds no effect of bilateral aid on overall migration, though a negative effect of bilateral aid on bilateral refugee flows in particular. All of the specifications in both of these analyses similarly suffer from possible overcontrolling as described above, making all coefficient estimates difficult to interpret.

In sum, the few cross-country studies testing the overall relationship between aid and migration fail to offer clear evidence that aid has substantially deterred migration on average. The only study to date published in a peer-reviewed journal finds that aid typically *raises* emigration. Very recent work has either found no effect on overall migration from the large share of aid that is bilateral ([Lanati and Thiele 2017](#); [Murat 2017](#)), or no effect from the vast majority of both bilateral and multilateral aid that is not directed toward governance quality ([Gamsso and Yuldashev 2017](#)). All of the studies face important challenges in interpreting the coefficient estimates on aid as the policy impact of an increase in aid, all else equal, since all control for several country characteristics that could be changed by an increase in aid. This literature does suggest several

interesting questions: For example, if the effect of multilateral aid really is different from bilateral aid, is this because multilateral aid is more effective or because bilateral aid builds bilateral ties that foster migration?

But the literature as it stands does not offer strong evidence that aid has systematically deterred migration, and rather implies that aid may have encouraged migration. As we emphasized at the beginning of this section, the literature testing for overall effects has a substantial burden of proof to bear because the evidence for each step in the underlying causal mechanism is itself weak. This literature does not yet offer lessons that would be programmatically useful for aid planners interested in deterring migration. A promising way forward is to seek large exogenous changes or discontinuities in aid exposure—such as across time, networks, cohorts, or areas—to look for well-identified effects on migration.

5 Four lessons

Today the evidence that aid can greatly and sustainably deter emigration from poor countries is weak at best. Aid tends to follow geopolitical concerns ([Kuziemko and Werker 2006](#); [Faye and Niehaus 2012](#)) and there is minimal evidence that it has systematically targeted the geographic areas or sectors considered most influential for migration flows. Aid flows may have a positive effect on economic growth—though this remains controversial—but more importantly, economic growth has historically *raised* emigration in almost all developing countries. Large increases in youth employment may well deter emigration in the short term, in countries that remain poor, but the best evaluation evidence finds most donor projects have had little success creating youth employment at large scale.

Aid practitioners' most common questions of such research are operational: Where, when, and what kind of aid should they give to best serve their obvious implicit mandate to deter migration? But the scant empirical research literature does not allow general operational lessons of this kind. We draw four lessons for aid policymakers and researchers with an interest in affecting migration flows from poor countries.

First, the evidence suggests that aid-supported programs to increase employment of young work-

ers, in both rural and urban areas, can modestly reduce the potential for surges of emigration in the short term. We qualify this assessment with ‘*modestly*’ because most such efforts have failed to achieve large changes in youth employment at scale. We qualify it with ‘*rural and urban*’ because there is no clear evidence that poor countries with more urban or more rural populations have different emigration rates. And we qualify it with ‘*short term*’ because the principal generator of youth employment—economic growth—tends to *raise* emigration in the medium and long term. Among countries that remain poor but manage to get more youths into jobs, migration rates are likely to fall somewhat. But in countries that get more youths into jobs sustainably, by developing a dynamic and growing economy, the typical net effect is likely to be an increase in migration.

This implies a reasonable aspiration for aid seeking to deter migration: to help at the margin to get youths into predictable jobs, shielding their families from shocks and mitigating sudden surges of migration—during the decades that emigration steadily rises along with development. Although some aid projects have sought to go further, especially by mitigating migration pressures arising from conflict, the literature offers little evidence that aid to mitigate existing civil conflict has typically done so.

Second, greater transparency and reporting is necessary to understand this phenomenon. The public documentation available on aid programming is too high-level to help researchers and other policymakers understand how these projects actually play out on the ground. A good first step would be to follow the precedent set by OECD Creditor Monitoring System reporting of aid projects targeting environmental and gender inequality. Tracking these aid efforts is necessary to inform both impact evaluation and any future programming.

Third, policy and research should focus on diverse experimentation in local context, continuously modified by feedback from rigorous evaluation. This approach has been called Problem-Driven Iterative Adaption ([Andrews et al. 2013](#)). While more could be learned from refinements of cross-country regressions, that research program is unlikely to result in reliable guides to donors seeking to deter migration in a given setting. Carefully evaluating the impact of new aid efforts on international migration requires counterfactuals—places, cohorts, networks, or time periods with less or no exposure to the aid intervention, but otherwise similar, for comparison.

And it requires tracking affected families to determine if they have gone abroad. Particularly important is testing a diverse range of new policies to raise youth employment, given the very poor track record of most past efforts. Research facilities created under the European Union Trust Fund for Africa offer an excellent opportunity for new research of this kind—combining diverse experimentation with counterfactuals and migrant tracking—an opportunity that remains to be seized.

Fourth, aid seeking to shape migration must look far beyond efforts to deter migration. Demographic realities imply that large-scale migration will occur in some form. Most notably, these realities include estimates of the net increase of 800 million workers in sub-Saharan Africa by the year 2050, at a time when populations in many migrant-destination countries are aging and stagnating (Hanson and McIntosh 2016). The true demographic surge to come may be even larger (Bertoli 2017). The evidence reviewed here does not offer strong reasons to believe that a large portion of those future flows can be deterred with aid policy, and the literature suggests a limited role for deterring them with interdiction (e.g. Gathmann 2008; Czaika and de Haas 2017).

Instead, aid agencies seeking to shape future migration flows can focus on cooperation with migrant-origin countries that alters *how* migration occurs, maximizing its potential benefits for everyone involved. Aid agencies can work with migrant-origin countries to develop safe, lawful, and mutually beneficial channels for lower-skill labor mobility (Gibson and McKenzie 2014; Clemens and Postel 2017). Foreign assistance is often required for up-front costs like providing identity documents to potential migrants, developing systems to monitor and enforce labor recruitment laws, and agencies to monitor returns and prevent overstays. Such activities do not substitute for more traditional aid, but complement it. For example, the local economic stimulus of remittances would tend to raise demand for the produce of any aid-supported farms or small businesses (Minasyan and Nunnenkamp 2016).

Aid agencies can also shape higher-skill migration for mutual benefit, such as facilitating finance and technology transfers to equitably share the training costs of skilled migrants, and strengthening origin-country training institutions to give migrants precisely the skills they need for rapid employment and integration at the destination (Clemens 2015; Clemens et al. 2015). This field is wide open for innovation. For example, none of the projects currently supported by the EU Trust

Fund for Africa have the goal of creating mutually beneficial labor mobility channels between Africa and the rest of the world. Current aid efforts around the world have devoted essentially none of their portfolio to supporting innovative ways to *shape* rather than deter migration. The first step in seizing this historic opportunity would be a substantial shift in aid agencies' new mandate—away from an exclusive focus on deterring migration and toward shaping migration for mutual benefit.

References

- Alfonsi, Livia, Oriana Bandiera, Vittorio Bassi, Robin Burgess, Imran Rasul, Munshi Sulaiman, and Anna Vitaliy,** “Tackling Youth Unemployment: Evidence from a Labor Market Experiment in Uganda,” Private Enterprise Development in Low-Income Countries (PEDL) Working Paper. London: Centre for Economic Policy Research (CEPR) and Department For International Development (DFID) 2017.
- Andrews, Matt, Lant Pritchett, and Michael Woolcock,** “Escaping capability traps through problem driven iterative adaptation (PDIA),” *World Development*, 2013, 51, 234–244.
- Angelucci, Manuela,** “Migration and financial constraints: Evidence from Mexico,” *Review of Economics and Statistics*, 2015, 97 (1), 224–228.
- Asencio, Diego C. et al.,** *Unauthorized migration: An economic development response. Report of the Commission for the Study of International Migration and Cooperative Economic Development*, Washington, DC: Government Printing Office, 1990.
- Bandyopadhyay, Subhayu, Dustin Chambers, and Jonathan Munemo,** “Foreign aid, illegal immigration, and host country welfare,” *Review of Development Economics*, 2014, 18 (2), 372–385.
- Banerjee, Abhijit V. and Esther Duflo,** *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*, New York: PublicAffairs, 2011.
- Bazzi, Samuel,** “Wealth heterogeneity and the income elasticity of migration,” *American Economic Journal: Applied Economics*, 2017, 9 (2), 219–255.
- Bermeo, Sarah B.,** “Targeted Development: Aid Allocation in an Increasingly Connected World,” Working Paper 2016.
- and David Leblang, “Migration and Foreign Aid,” *International Organization*, 2015, 69 (3), 627–657.
- Berthélemy, Jean-Claude, Monica Beuran, and Mathilde Maurel,** “Aid and migration: Substitutes or complements?,” *World Development*, 2009, 37 (10), 1589–1599.
- Bertoli, Simone,** “Is the Mediterranean the New Rio Grande? A Comment,” *Italian Economic Journal*, 2017, 3 (2), 255–259.
- Bignebat, Céline and Maam Suwadu Sakho-Jimbira,** “Migrations et diversification des activités économiques locales: étude du Bassin arachidier du Sénégal,” *Mondes en développement*, 2013, (4), 93–114.
- Bryan, Gharad, Shyamal Chowdhury, and Ahmed Mushfiq Mobarak,** “Underinvestment in a profitable technology: The case of seasonal migration in Bangladesh,” *Econometrica*, 2014, 82 (5), 1671–1748.
- Burda, Michael C.,** “Migration and the option value of waiting,” *Economic and Social Review*, 1995, 27 (1), 1–19.
- Carling, Jørgen and Catherine Talleraas,** “Root causes and drivers of migration—Implications for humanitarian efforts and development cooperation,” PRIO Paper. Oslo: Peace Research Institute Oslo (PRIO) 2016.
- Carnegie, Allison and Nikolay Marinov,** “Foreign Aid, Human Rights, and Democracy Promotion: Evidence from a Natural Experiment,” *American Journal of Political Science*, 2017, 61 (3), 671–683.
- Chandy, Laurence, Brina Seidel, and Christine Zhang,** “Aid effectiveness in fragile states: How bad is it and how can it improve?,” Brooke Shearer Series No. 5, Global Economy and Development. Wash-

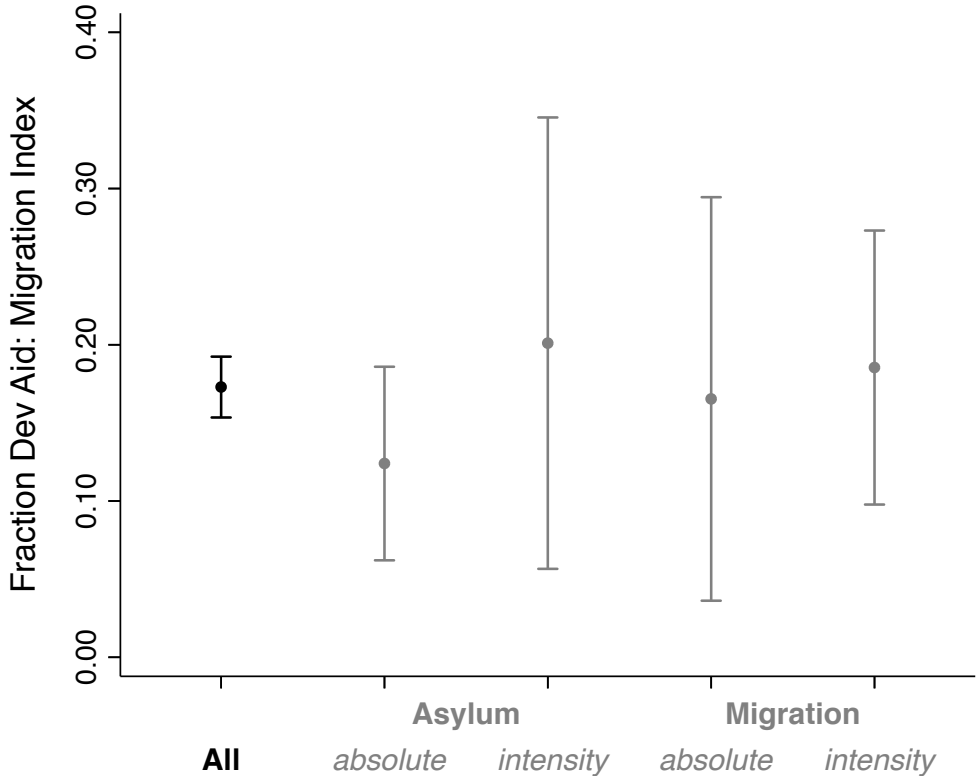
ington, DC: Brookings Institution 2017.

- Chen, Kong-Pin, Shin-Hwan Chiang, and Siu Fai Leung**, “Migration, Family, and Risk Diversification,” *Journal of Labor Economics*, 2003, 21 (2), 323–352.
- Clemens, Michael A**, “Does development reduce migration?,” in Robert E B Lucas, ed., *International Handbook on Migration and Economic Development*, Cheltenham: Edward Elgar Publishing, 2014, pp. 152–185.
- , “Global Skill Partnerships: A proposal for technical training in a mobile world,” *IZA Journal of Labor Policy*, 2015, 4 (1), 2.
- **and Hannah Postel**, “Temporary work visas as US-Haiti development cooperation: a preliminary impact evaluation,” *IZA Journal of Labor & Development*, 2017, 6 (1), 4.
- , **Claudio E Montenegro, and Lant Pritchett**, “The Place Premium: Bounding the Price Equivalent of Migration Barriers,” Discussion Paper 9789. Bonn: IZA Institute of Labor Economics 2016.
- , **Colum Graham, and Stephen Howes**, “Skill development and regional mobility: lessons from the Australia-Pacific Technical College,” *Journal of Development Studies*, 2015, 51 (11), 1502–1517.
- , **Steven Radelet, Rikhil R Bhavnani, and Samuel Bazzi**, “Counting chickens when they hatch: Timing and the effects of aid on growth,” *Economic Journal*, 2012, 122 (561), 590–617.
- Czaika, Mathias and Amy Mayer**, “Refugee Movements and Aid Responsiveness of Bilateral Donors,” *Journal of Development Studies*, 2011, 47 (3), 455–474.
- **and Hein de Haas**, “The Effectiveness of Immigration Policies,” *Population and Development Review*, 2013, 39 (3), 487–508.
- **and** —, “The effect of visas on migration processes,” *International Migration Review*, 2017, forthcoming.
- Dao, Thu Hien, Frédéric Docquier, Christopher Robert Parsons, and Giovanni Peri**, “Migration and development: Dissecting the anatomy of the mobility transition,” IZA Discussion Paper 10272. Bonn: IZA Institute of Labor Economics 2016.
- de Haas, Hein**, “Turning the tide? Why development will not stop migration,” *Development and Change*, 2007, 38 (5), 819–841.
- , “Migration and Development: A Theoretical Perspective,” *International Migration Review*, 2010, 44 (1), 227–264.
- Dreher, Axel, Andreas Fuchs, and Sarah Langlotz**, “Does Aid Help Refugees Stay? Does Aid Keep Refugees Away?,” Working Paper, Alfred-Weber-Institute for Economics. Heidelberg: Heidelberg University 2017.
- Dula, Giora, Nava Kahana, and Tikva Lecker**, “How to partly bounce back the struggle against illegal immigration to the source countries,” *Journal of Population Economics*, 2006, 19 (2), 315–325.
- European Commission**, *Operational Framework for the Sahel and Lake Chad Window*, European Commission Directorate General for International Cooperation and Development Emergency Trust Fund for stability and addressing root causes of irregular migration and displaced persons in Africa, 2016.
- Faye, Michael and Paul Niehaus**, “Political Aid Cycles,” *American Economic Review*, 2012, 102 (7), 3516–3530.
- Fox, Louise and Upaasna Kaul**, “The evidence is in: How should youth employment programs in low-income countries be designed?,” Working Paper, Office of the Chief Economist. Washington, DC: US Agency for International Development 2017.

- Galiani, S., S. Knack, L.C. Xu, and B. Zou**, “The effect of aid on growth: Evidence from a quasi-experiment,” *Journal of Economic Growth*, 2017, 22 (1), 1–33.
- Gamso, Jonas and Farhod Yuldashev**, “Targeted Foreign Aid and International Migration: Is Development Promotion an Effective Immigration Policy?,” AIDDATA Working Paper 37, College of William and Mary 2017.
- Gathmann, Christina**, “Effects of enforcement on illegal markets: Evidence from migrant smuggling along the southwestern border,” *Journal of Public Economics*, 2008, 92 (10), 1926–1941.
- Gaytán-Fregoso, Helena and Sajal Lahiri**, “Foreign aid and illegal immigration,” *Journal of Development Economics*, 2000, 63 (2), 515–527.
- Gibson, John and David McKenzie**, “The development impact of a best practice seasonal worker policy,” *Review of Economics and Statistics*, 2014, 96 (2), 229–243.
- Giesbert, Lena**, “Seeking Opportunities: Migration as an Income Diversification Strategy of Households in Kakamega District in Kenya,” GIGA Working Paper 58, German Institute of Global and Area Studies 2007.
- Gregl, Marko and Klavdij Logožar**, “The Impact of Development Aid on the International Migrations in the African, Caribbean, and Pacific Group of States,” *Zagreb International Review of Economics and Business*, 2017, 20 (1), 101–112.
- Hanson, Gordon and Craig McIntosh**, “Is the Mediterranean the New Rio Grande? US and EU Immigration Pressures in the Long Run,” *Journal of Economic Perspectives*, November 2016, 30 (4), 57–82.
- Jacobson, Roberta S.**, “Oversight of the State Department and Agency for International Development Funding Priorities for the Western Hemisphere,” Hearing before the Subcommittee on the Western Hemisphere of the House Committee on Foreign Affairs, March 25, U.S. House of Representatives Committee on the Foreign Affairs 2015.
- Kahana, Nava**, “Foreign Aid and Illegal Immigration: Comment,” *Journal of Immigrant & Refugee Studies*, 2007, 5 (4), 49–57.
- Khoudour-Castéras, David**, “Neither migration nor development: The contradictions of French co-development policy,” Paris: Centre d’Études Prospectives et d’Informations Internationales (CEPII) 2009.
- Knoll, Anna and Andrew Sherriff**, *Making Waves: Implications of the irregular migration and refugee situation on Official Development Assistance spending and practices in Europe*, Brussels: European Centre for Development Policy Management, 2017.
- Kuziemko, Ilyana and Eric Werker**, “How much is a seat on the Security Council worth? Foreign aid and bribery at the United Nations,” *Journal of Political Economy*, 2006, 114 (5), 905–930.
- Lanati, Mauro and Rainer Thiele**, “The impact of foreign aid on migration revisited,” EUI Working Paper MWP 2017/05. Fiesole: European University Institute 2017.
- Marchetta, Francesca**, “Migration and nonfarm activities as income diversification strategies: the case of Northern Ghana,” *Canadian Journal of Development Studies/Revue canadienne d’études du développement*, 2013, 34 (1), 1–21.
- McKenzie, David**, “How Effective Are Active Labor Market Policies in Developing Countries? A Critical Review of Recent Evidence,” Policy Research Working Paper 8011. Washington, DC: World Bank 2017.
- Mergo, Teferi**, “The Effects of International Migration on Migrant-Source Households: Evidence from Ethiopian Diversity-Visa Lottery Migrants,” *World Development*, 2016, 84, 69–81.

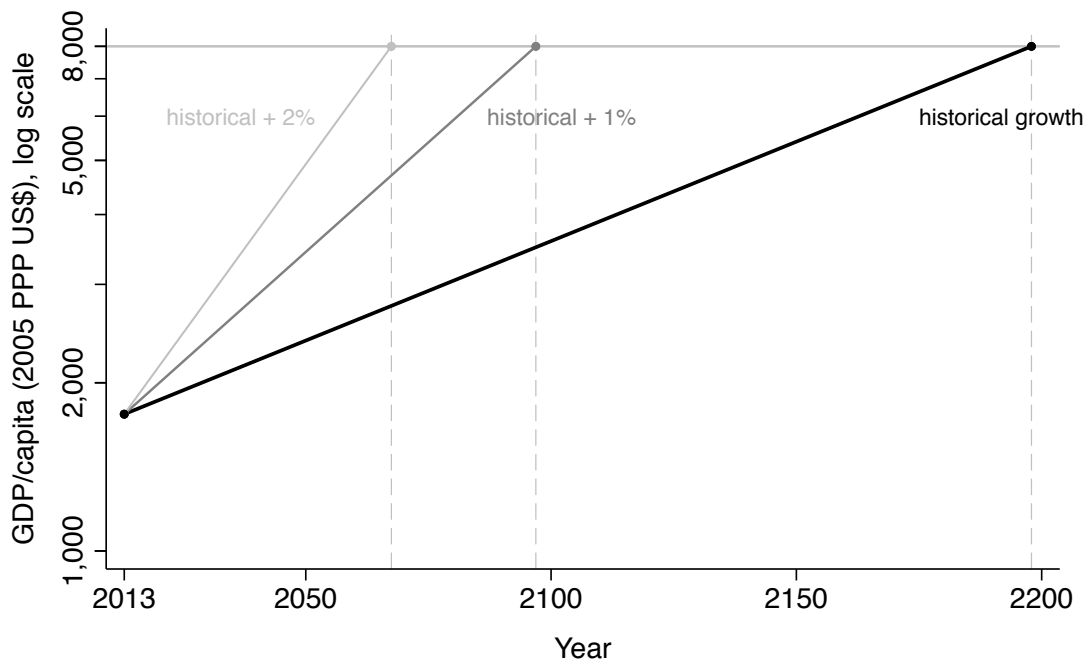
- Meyer, Peter J. and Clare R. Seelke**, *Central America Regional Security Initiative: Background and Policy Issues for Congress* CRS report R41731, Washington, DC: Congressional Research Service, 2015.
- Minasyan, Anna and Peter Nunnenkamp**, “Remittances and the effectiveness of foreign aid,” *Review of Development Economics*, 2016, 20 (3), 681–701.
- Mugh, Muhindo**, “Inquiry on self-interested foreign aid: Insights from the ODA-migrations link in SSA countries,” *African Journal of Political Science and International Relations*, 2011, 5 (4), 164–173.
- Murat, Marina**, “Foreign aid and responsiveness of bilateral refugee inflows,” Working Paper 130, RECent Center for Economic Research, University of Modena and Reggio Emilia 2017.
- Myers, Gordon M and Yorgos Y Papageorgiou**, “Immigration control and the welfare state,” *Journal of Public Economics*, 2000, 75 (2), 183–207.
- Nielsen, Rich**, “Does Aid Follow Need? Humanitarian Motives in Aid Allocation,” Working Paper prepared for the Aid Transparency and Development Finance: Lessons from AidData conference held at University College, Oxford, March 22-25, 2010 2010.
- OECD**, *Perspectives on Global Development 2017: International Migration in a Shifting World*, Paris: OECD, 2017.
- Qian, Nancy**, “Making Progress on Foreign Aid,” *Annual Review of Economics*, 2015, 7, 277–308.
- Rotte, Ralph, Michael Vogler, and Klaus F Zimmermann**, “South-North refugee migration: Lessons for development cooperation,” *Review of Development Economics*, 1997, 1 (1), 99–115.
- Schultz, T.W.**, “Human capital: Policy Issues and Research Opportunities,” in T.W. Schultz, ed., *Economic Research: Retrospect and Prospect Vol 6: Human Resources*, Cambridge, Mass.: National Bureau of Economic Research, 1972, pp. 1–84.
- Shonchoy, A.S.**, “Seasonal migration and micro-credit in the lean period: Evidence from northwest Bangladesh,” IDE Discussion Paper 294, Institute of Developing Economies, Japan External Trade Organization (JETRO) 2011.
- Sjaastad, Larry A**, “The costs and returns of human migration,” *Journal of Political Economy*, 1962, 70 (5, Part 2), 80–93.
- Thiele, Rainer, Peter Nunnenkamp, and Axel Dreher**, “Do Donors Target Aid in Line with the Millennium Development Goals? A Sector Perspective of Aid Allocation,” *Review of World Economics*, 2007, 143 (4), 596–630.
- Tsai, Arthur C, Michelle Liou, Maria Simak, and Philip E Cheng**, “On hyperbolic transformations to normality,” *Computational Statistics & Data Analysis*, 2017, 115, 250–266.
- Vazquez, Sergio T. and David G. Sobrao**, “Reshaping geographical allocation of aid: the role of immigration in Spanish Official Development Assistance,” *Journal of International Relations and Development*, 2016, 19 (3), 333–364.
- Vogler, Michael and Ralph Rotte**, “The effects of development on migration: Theoretical issues and new empirical evidence,” *Journal of Population Economics*, 2000, 13 (3), 485–508.
- Washington Office on Latin America**, “Central America Monitor: Monitoring U.S. Assistance Database,” 2017.
- Zelinsky, Wilbur**, “The hypothesis of the mobility transition,” *Geographical Review*, 1971, 61 (2), 219–249.
- Zürcher, Christoph**, “What Do We (Not) Know About Development Aid and Violence? A Systematic Review,” *World Development*, 2017, forthcoming.

Figure 1: Fraction of development assistance allocated to ‘root causes’ programming in major migrant origin countries, 2015



Vertical axis shows fraction of development aid in 2015 targeted to migration-relevant sectors including vocational training, small and medium enterprise support, agricultural development, environmental preservation, urban development, food aid, and disaster preparedness. Unit of analysis is recipient country. The data excludes humanitarian assistance in accordance with the rest of the paper. The first column shows the average fraction for all aid recipients, with a 95% confidence interval on the estimated mean fraction. The second column shows the same fraction for the ten countries that were the origins of the largest absolute numbers of asylum-seeker flows to DAC donor countries in 2015. The third column shows the ten aid recipient countries that were the origins of the largest asylum seeker flows to DAC donor countries relative to the origin-country population in 2015. The fourth column shows the ten countries with the largest migrant stocks residing in DAC donor countries in absolute numbers—where migrant is defined as any person born in that country who lives in a DAC donor country. The fifth column shows the ten countries with the largest migrant stocks in DAC donor countries as a fraction of the origin-country population.

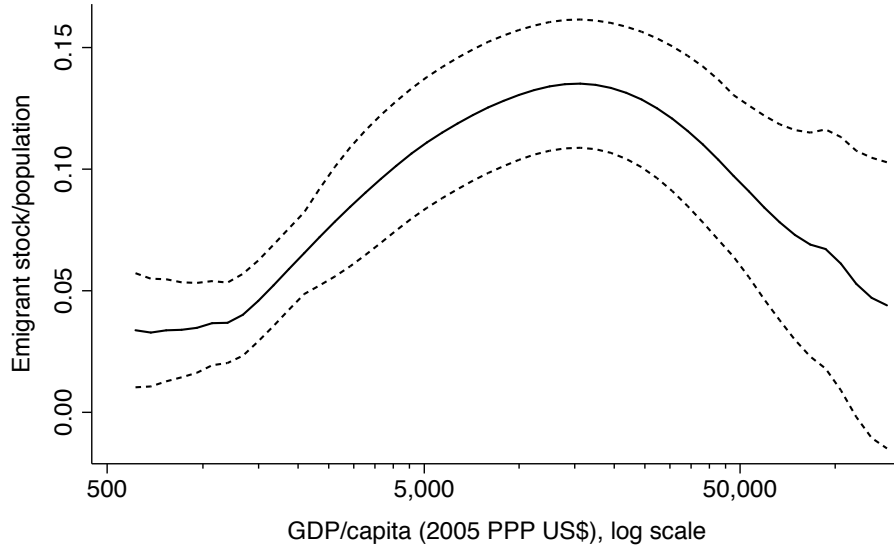
Figure 2: Years for the poorest quintile of countries to reach PPP\$8,000/capita



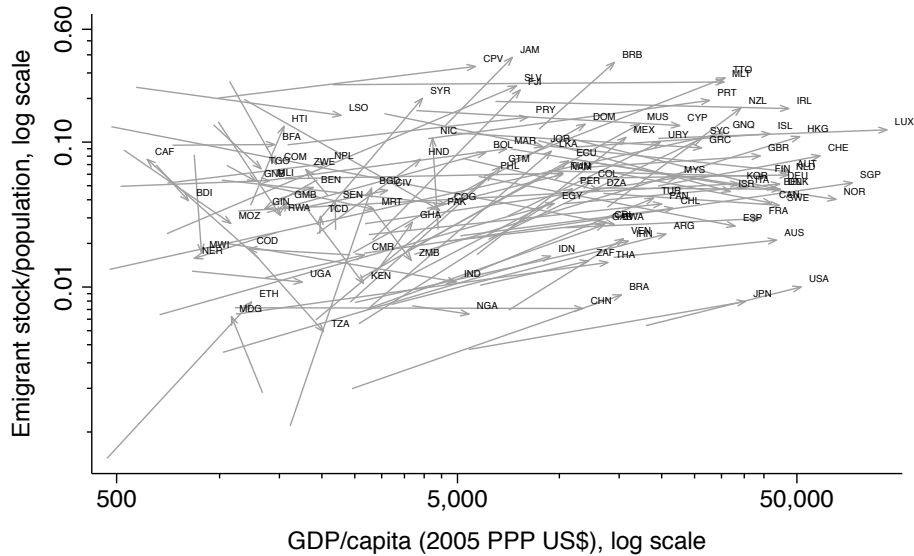
Data for the 35 countries in the lowest quintile of GDP per capita (2005 PPP US\$) in 2013, among which the average GDP per capita is PPP\$1,757. Historical growth is average annual real GDP per capita growth 1990–2013 in this group (0.823%). The countries are: Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Comoros, D.R. Congo, Djibouti, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, São Tome & Príncipe, Senegal, Sierra Leone, Tajikistan, Tanzania, Togo, Uganda, and Zimbabwe.

Figure 3: In poor countries, emigrant stocks rise with real incomes

(a) *Level of emigrant stock vs. level of real income, 2013*

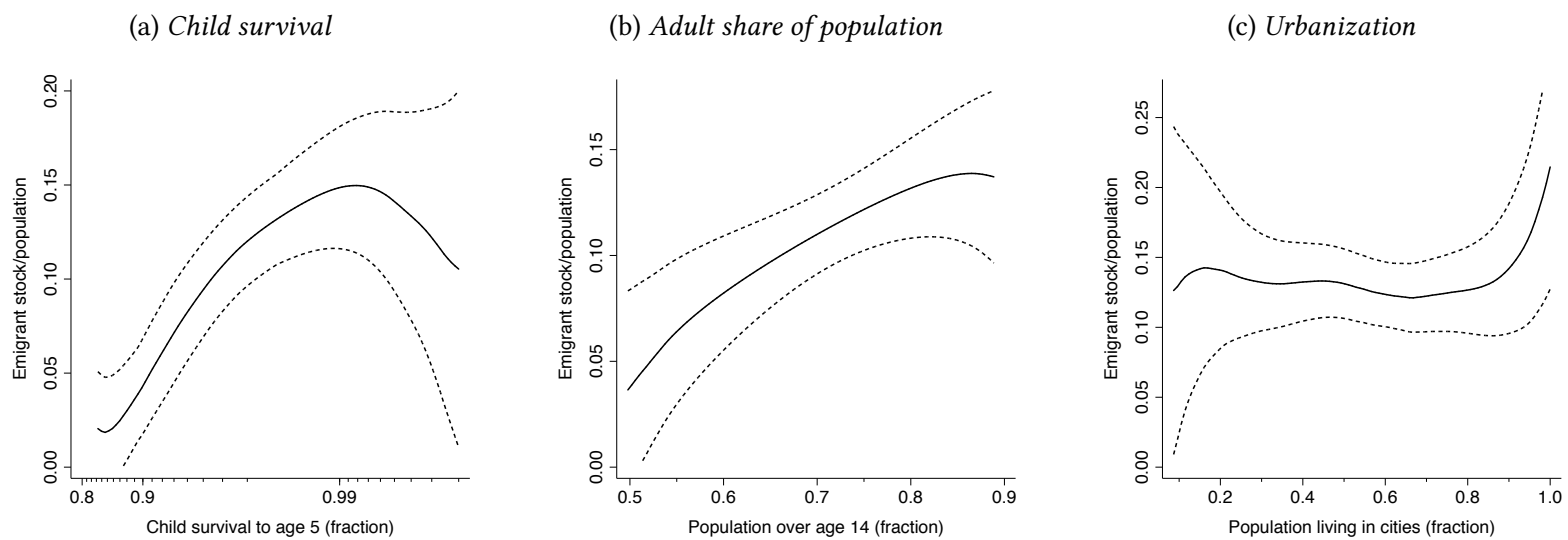


(b) *Change in emigrant stock vs. change in real income, from 1960 to 2013*



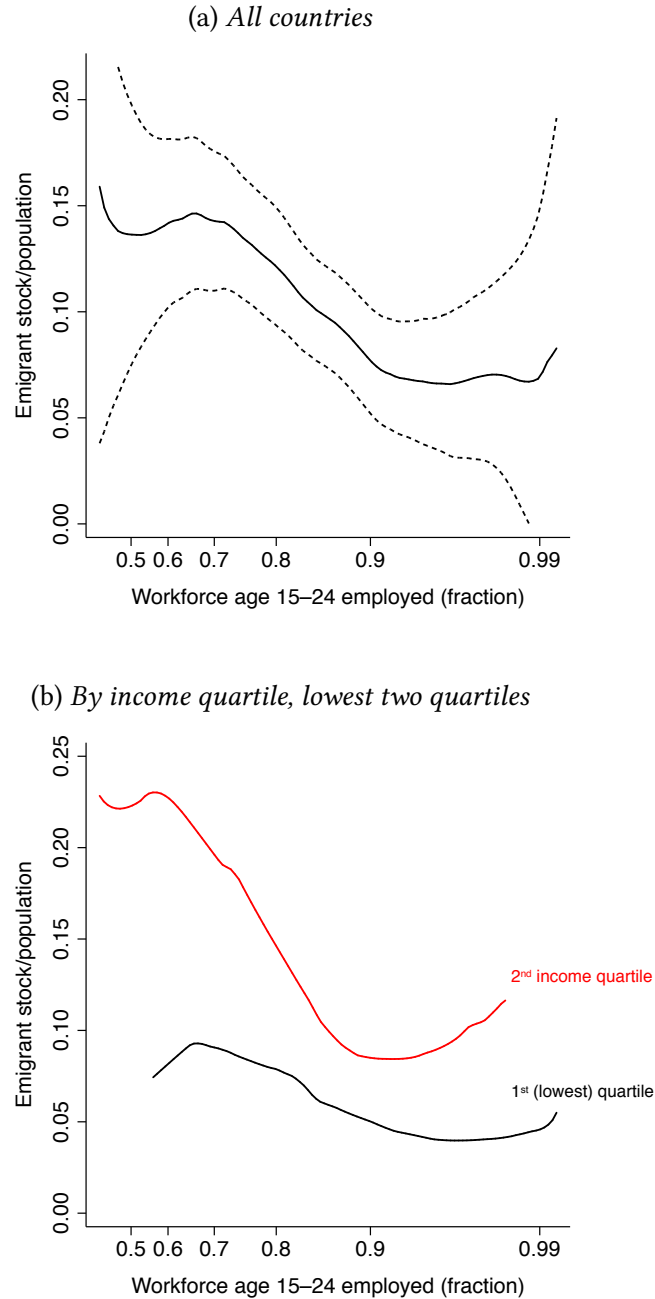
Part (a) shows the cross-country relationship in 2013 for all countries on earth with available data (excluding Macau), and dashed lines show 95% confidence interval in local linear regression with Epanechnikov kernel, bandwidth 1 log point. Part (b) shows all countries on earth with comparable data available for both 1960 and 2013, and beginning of arrow shows 1960 datapoint and arrowhead shows 2013 datapoint for each country.

Figure 4: Emigration versus health, aging, and urbanization



Cross-country relationships for a single year (2013), using all countries on earth with available data. Horizontal axis for child survival, whose distribution across countries exhibits high skewness, shown under zero-skewness hyperbolic transformation (Tsai et al. 2017): $-\ln(-x + 1.000795)$. Dashed lines show 95% confidence interval in local linear regression with Epanechnikov kernel, bandwidth (a) 1 log point, (b) 0.15, (c) 0.15, (d) 0.2 log points.

Figure 5: Emigrant stocks fall with youth employment



Part (a) shows the cross-country relationship in 2013 for all countries on earth with available data (excluding Macau), and dashed lines show 95% confidence interval in local linear regression with Epanechnikov kernel, bandwidth 0.2 log points. Horizontal axis for youth employment, whose distribution across countries exhibits high skewness, shown under zero-skewness hyperbolic transformation (Tsai et al. 2017): $-\ln(-x + 1.049538)$. Part (b) shows cross-country relationship separately for countries in lowest quartile of income per capita ($<PPP\$3,954$) and second quartile ($\geq PPP\$3,954$ and $<PPP\$11,717$). Local linear regression with Epanechnikov kernel, bandwidth 0.3 log points.