

Fears and Tears

Should More People Be Moving within and from
Developing Countries, and What Stops This Movement?

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Abstract

Only one in seven of the world's population has ever migrated, despite the enormous gains in income possible through international and internal movement. This paper examines the evidence for different explanations given in the economics literature for this lack of movement and their implications for policy. Incorrect information about the gains to migrating, liquidity constraints that prevent poor people paying the costs of moving, and high costs of movement arising from both physical transportation costs and policy barriers all inhibit movement and offer scope for policy efforts to inform, provide credit, and lower moving costs. However, the economics literature has paid less attention to the fears people have when faced with the

uncertainty of moving to a new place, and to the reasons behind the tears they shed when moving. While these tears reveal the attachment people have to particular places, this attachment is not fixed, but itself changes with migration experiences. Psychological factors such as a bias toward the status quo and the inability to picture what one is giving up by not migrating can result in people not moving, even when they would benefit from movement and are not constrained by finances or policy barriers from doing so. This suggests new avenues for policy interventions that can help individuals better visualize the opportunity costs of not moving, alleviate their uncertainties, and help shift their default behavior from not migrating.

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Fears and Tears: Should More People Be Moving within and from Developing Countries, and What Stops This Movement?*

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1. Introduction

I spent most of my childhood in the small town of Huntly, New Zealand. I remember clearly that there used to be a sign at the entrance of the town that said something like “Welcome to Huntly, population 6,238 and growing,”¹ and that after a while, they removed the “and growing” from the sign. The town was surrounded by rural farmland (there was a farm over our back fence). The main industry in town was a coal-mine and a power station that used the coal to generate thermal energy, with the two big smoking chimneys from the power plant the largest landmarks in town. Fast forward to today, and the population is still only 8,030 (June 2020 estimate), the median personal income of NZ\$24,500 (US\$17,253) is 40 percent less than the NZ\$34,400 (US\$24,225)² in the Auckland region to which I later moved, and the local high school (where my father taught) had its enrollment fall from over 600 students in the 1980s to only 204 students in 2020. In 2019, Huntly was voted New Zealand’s worst town in one online poll.³

From this description it would seem obvious that most people would want to move from such a place. Yet when the time came to move to Auckland, I cried. There were many things I liked about living there – playing soccer on a foggy field by the lake, running about on the farm, my friends, and the familiarity of our house and backyard. Leaving all these behind to start afresh in a new place seemed scary and uncertain. But move we did, and after going to high school and doing my undergraduate degree in Auckland, I was instead firmly attached to this new home. But then a new opportunity was open to me – the chance to move to America for graduate school. Not only would moving to a new country offer educational opportunities far exceeding those I could get in Auckland, but research I later did with John Gibson found that New Zealanders who were at the top of their academic classes at the end of high school gain an average of US\$1,000 a week, or around \$50,000 a year, by migrating (Gibson and McKenzie, 2011). Again, deciding whether or not to move would seem an easy decision by economic cost-benefit analysis. Yet as I hopped on that plane, moving once again involved substantial fears and tears, including this time moving

¹ The 1981 New Zealand census records a population estimate of 6,100 for Huntly:

[https://www3.stats.govt.nz/New_Zealand_Official_Yearbooks/1981/NZOYB_1981.html#idchapter_1_9605].

² Data on incomes from the 2018 Census <https://www.stats.govt.nz/tools/2018-census-place-summaries/huntly-east#work-income-and-unpaid-activities>. Exchange rate of US\$1 = NZ\$1.42 used.

³ <https://www.nzherald.co.nz/travel/huntly-named-worst-town-in-new-zealand-by-public-vote/A4ROMUR4LDUJXHCMGW4S7YARRE/>

alone, rather than with my family. But 24 years later, you will find me happily residing in Northern Virginia, attached once again to a new place, and where the thought of moving somewhere new once more is anathema to me.

I start with this personal anecdote because it illustrates a couple of points that I want to make about the role of migration in fostering wealth and well-being. The first is that there are enormous potential gains in income to be had from moving, both internally, and especially internationally. While this is true for countries like New Zealand, it is even more the case for people in developing countries where income levels and opportunities are much lower. The big puzzle is then why more people do not move, despite these potential gains. A lot of economic research has focused on the constraints that limit movement, including liquidity constraints, lack of information, moving costs, and policy barriers. These are certainly important, and I will discuss how research and policy have endeavored to understand and relax these. But this story illustrates two other factors that I think have been relatively understudied, which I call “Fears and Tears”. The band *Tears for Fears* famously claimed everybody wants to rule the world. I think instead that fears of the unknown, and tears for the attachment felt to home, help explain why, instead, (almost) everybody ends up staying at home instead of going off to rule the world. I highlight how psychological factors like status quo bias and the inability to picture what one is giving up by not moving help shape these tears, and the potential implications of this idea for policies to increase migration.

2. What is the scale of mobility, and why should we care that more people are not moving?

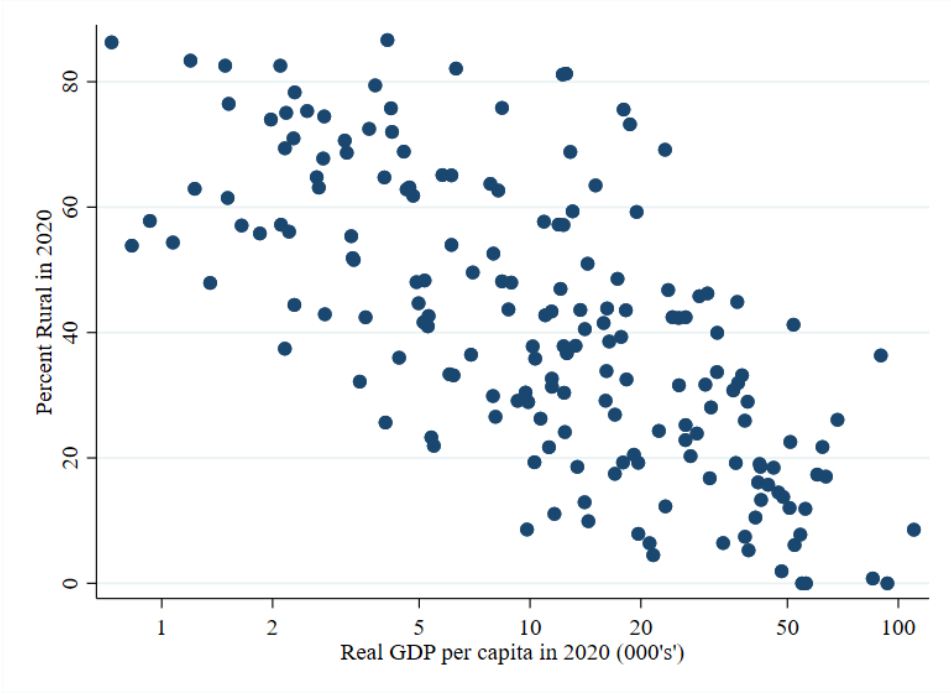
The United Nations estimates that there were 272 million international migrants in 2019.⁴ While this might seem like a large number, it is only 3.5 percent of the global population. Emigration rates are lower still for the regions with the most poor people: emigrants are only 2.5 percent of the population of Sub-Saharan Africa and 2.2 percent of the population of South Asia (World Bank, 2016). Rates are much higher for small island states, with more than 40 percent of Jamaicans, Tongans, and Samoans living abroad. But even in these very small, isolated countries, many people do not move. Internal migration rates are much higher. Data on what constitutes an internal move is hard to compare exactly across countries, but the United Nations (2013) estimates

⁴ <https://www.un.org/development/desa/en/news/population/international-migrant-stock-2019.html>

that there are 763 million persons living within their own country but outside their region of birth. Combining this with the international migration data leads to a rough estimate that approximately 1 billion people, or one in seven of the world's population have ever migrated.

Why does it matter that more people do not move? A first reason is that the reallocation of labor from remote, unproductive rural areas towards urban areas has been a fundamental part of the development process around the world. Figure 1 illustrates the strong negative association between the percentage of the population living in rural areas and the level of GDP per capita in different countries. We see poor countries tend to have most of their population in rural areas, while rich populations are majority urban. A prominent recent example is seen in the development of China, whose urban workforce rose from 100 million in 1980 to about 500 million today (The Economist, 2021). With urbanization comes the opportunities for structural change, for worker specialization, for agglomeration effects as workers interact and learn from one another, and for better matching of jobs and workers. Understanding what limits the likelihood of many people making this move is thus fundamental for understanding constraints to growth and development.

Figure 1: The Strong association between urbanization and development



Source: World Development Indicators of the World Bank: Rural population as a percent of total population, and GDP per capita in 2017 PPP dollars. Real GDP plotted on log scale. Each point represents one country. Correlation is -0.70.

Many of the same arguments apply when we consider the movement of individuals across countries. Allowing workers to move from locations where their skills are less productive to locations where they are more productive offers the potential for enormous global gains. Even relatively small increases in global migration could result in gains that far exceed the total of foreign aid or the total gains from relaxing all remaining trade barriers (e.g. Clemens 2011; Dustmann and Preston, 2019). These forces may be even stronger in the future as issues like climate change have long-term effects on the productivity of certain places. Lant Pritchett (2006) provocatively compares the experience of “ghost towns” in the U.S., where a fall in labor demand caused abandonment of the population, to places where people remain trapped despite falling productivity, which he describes as “zombie economies”. Without migration, more of these zombie economies are likely to eventuate.

A second important reason for understanding why more people don’t move is then that the reason they do not move might either tell us where there are constraints that policy might overcome; or conversely where our standard measures of welfare and of what matters to people may be missing important factors.

3. Is it really that beneficial to move?

Before examining different reasons why more people do not migrate, it is worth establishing that there are indeed big gains in income to be had from migrating. Simply noting that incomes are much higher in developed than developing countries, and in cities compared to rural areas, may not tell us that much about the returns to migrating for at least three reasons. A first issue is the need to account for cost-of-living differences. Incomes may be much higher in the city or in another country, but so might the cost of housing, transportation, and food. A second issue is that of average productivity differences: people living in poor rural areas may be less educated and not have the skills that are rewarded in labor markets in destinations, so that, e.g. the average Tongan will not necessarily be as productive when in Auckland as the average Aucklander. The third is an issue of average versus marginal productivity differences. We might expect the people who have the most to gain from migration to be the ones that have already migrated, while those who have stayed behind may be those who have a lot less to gain. So even if we observe that, on average, Haitians who have moved to the U.S. have earned a lot more, this might not tell us that much about the gain to migrating for someone who has chosen not to move.

The standard approach used by economists to adjust for differences in cost-of-living is to use purchasing power parity exchange rates, and to use regional price deflators. These help to adjust for differences in the price of a set basket of items in different locations, and then adjusting for living costs becomes largely a measurement issue. However, migration does induce a couple of additional issues into this adjustment. The first is that temporary migrants might earn income at destination with the intention of spending it at home, so that migrants may not be spending all of their income on the more expensive goods at destination (Dustmann et al, 2021), and so cost-of-living adjustments may understate the gains from migration. However, conversely, Atkin (2013) shows that inter-state migrants in India carry their food tastes with them, paying more for food as they buy products from their origin state that are more expensive than the local food bundle. Cost-of-living adjustments may then undercount the costs of migrants being able to obtain the same utility from their consumption expenditure as at home. Nevertheless, in many cases these cost-of-living adjustments will be small compared to the large income gains from migration.

Addressing the issue of differences in productivity between migrants and natives requires measuring what the change in income is for those individuals who actually migrate. One approximation of this is carried out by Clemens et al. (2019), who use survey data to compare the incomes earned by migrants in the U.S. to the (purchasing power parity adjusted) incomes of individuals of the same age, gender, and education in their home countries. They find a wage gap of PPP\$13,710 per year, with U.S. incomes more than 5 times that in the average sending country. Gibson and McKenzie (2011, 2012), consider high academic achievers from Ghana, Micronesia, New Zealand, Papua New Guinea and Tonga, and compare the (cost-of-living adjusted) incomes of migrants to those with similar skill levels who did not move, finding income gains of \$40,000–\$75,000 per year. Gibson and McKenzie (2014) track households in Vanuatu and Tonga over two years, and measure impacts of temporary migration in a new seasonal worker program, comparing income gains to both the incomes they earned before the program, and to what similar households who applied for the program and that were not chosen earned while the migrants were away. They find per capita income of participating households rises by over 30 percent.

These studies suggest that the income gain from migrating is large for a wide variety of skill levels and types of migration. However, the concern may still be that those who choose to migrate may differ in unobserved ways from those that remain behind, and that the marginal migrant may have

lower productivity than the average one. One approach to dealing with this concern is to use migration lottery programs, in which a group of applicants apply, and then a random ballot determines which individuals get to migrate. McKenzie et al. (2010) and Gibson et al. (2018) examined such a program for Tongan migrants coming to New Zealand, finding they gain a 263 percent increase in (cost-of-living adjusted) income in the first year, with this gain in income persisting for at least the next 10 years, for a net present value of migrating of at least US\$237,000. Mobarak et al. (2021) also use a migration lottery to estimate the income gains from migrating between Bangladesh and Malaysia, finding that migration doubles household incomes.

These estimates suggest that there are indeed large gains in income to be had from international migration. However, there has been more debate about whether there are really gains in income to be had from more internal migration. There are very large productivity gaps between the agricultural and non-agricultural sectors (e.g. Young, 2013; Gollin et al. 2014). However, a large part of this gap appears to reflect differences in the human capital and selection of who works in these different areas. Papers which use panel data to track rural-urban migrants over time have found the income gains to be smaller, but still positive. For example, Hamory et al. (2021) find wage earnings to be 27 percent higher in urban areas than rural areas for movers in Kenya, and 4 percent higher in Indonesia; while Beegle et al. (2011) find in Tanzania that individuals who move away from their rural villages have consumption gains of over 30 percent. Lagakos et al. (2020) use panel data from six countries - China, Ghana, Indonesia, Malawi, South Africa and Tanzania – and find an average gain in (spatially price adjusted) consumption of 23 percent from migrating, ranging from 17 percent in Indonesia to 34 percent in Ghana. Gains in income in South Africa and Indonesia are 29 percent and 15 percent respectively.

However, the challenges with these panel data estimates are both that the gains for the types of people who move might be different from what we might expect for those who don't migrate, and in dealing with the possible selectivity of when individuals decide to move – e.g. they might move because they experience a negative forecast of what their productivity would be at home, and so their prior earnings might overstate what they would have earned had they stayed.

Experimental estimates from efforts to encourage more rural-urban migration address this issue, and do also suggest that, at least in some settings, gains from internal migration are possible for the people who respond to these incentives. For example, Bryan et al. (2014) find Bangladeshis

induced to engage in short-term migration during the hungry season increased their consumption by 30 to 35 percent. Baseler (2021) finds Kenyans induced to migrate to Nairobi by providing them with better information about returns to migration earn \$249 more per month, an 179 percent increase. Taken together, this body of evidence suggests that there are at least groups of people in developing countries who would earn more from migrating internally, even if the exact magnitudes will vary by individual and context. One might be concerned that this higher income is offset by lower non-monetary amenities, such as crime, pollution, and public goods in cities. However, Gollin et al. (2021) examine this question in different African countries, and find that these amenities are at least as good in cities as rural areas, and that reported happiness and life satisfaction also tend to be higher in urban areas.

4. If migration is so beneficial, why don't more people do it?

We have seen that both international and internal migration can lead to sizeable increases in income, and yet most people in the world never migrate. A simple model helps set out how economists typically conceptualize different categories of reasons for more people not migrating. Let w_t^M and A_t^M be the wages and amenities that an individual would face at time t if they migrate, and w_t^H and A_t^H likewise be the wages and amenities if they remain at home. Note that these wages and amenities are likely to be stochastic rather than deterministic. For example, there is a chance that next year an individual gets a pay increase, or becomes unemployed, and that a new school gets built or a noisy neighbor moves in next door. Then an individual will form expectations about the expected gain to migration given their beliefs about the wage and amenity distributions, their discount rate δ , and their information set Ω , and then compare the expected discounted utility (given utility function U) to the cost of migrating, C .⁵ Given an available budget B that they can use to pay these migration costs, they will then choose to migrate if:

$$\sum_{t=1}^T \delta^t E[\{U(w_t^M, A_t^M) - U(w_t^H, A_t^H)\}|\Omega] > C \quad \text{and } C \leq B$$

That is, if the expected discounted benefit from migrating exceeds the costs of doing so. A first reason individuals may not move is then that it is simply not beneficial to do so. We have seen that in many cases there are substantial income gains to be had from migrating. But even if this is true

⁵ This cost of migrating is expressed in utility-equivalent terms here, as is the budget constraint.

on average, it may not hold for particular individuals. The classic Borjas (1987) selection model notes that potential immigrants will differ in their earnings potential in different destinations, and not all will benefit from moving. For example, location-specific human capital may make some people more able to use their skills and personal relationships to earn money in their home market than if they move. Moreover, even if income may be higher after migrating, this may not be enough to offset how much some individuals value home amenities like their attachment to family and community, tastes for certain places, climate, infrastructure, language, etc.

However, this set-up also encapsulates several key reasons why individuals may not migrate, even if the expected gain in wages from moving $E(w_t^M - w_t^H)$ is large, and many of the amenities like crime, pollution, and public services are at least as good at destination as at home.

Impatience and time horizons – the costs of moving are immediate, the benefits take time to materialize. Many of the costs of migration occur immediately. If the benefits take time to materialize, then people will not migrate if they are too impatient (δ is too low) or if their time horizon is not long enough (T is small). The latter is one reason why migration rates tend to peak for people in their late teens or early twenties in many developing countries (McKenzie, 2008), since they have more time to reap the benefits of moving. A couple of studies have found more patient individuals are more likely to have migrated (Gibson and McKenzie 2011 for Tonga, Papua New Guinea and New Zealand; Chapela, 2022 for Spain). However, Nowotny (2014) also notes that a high degree of patience may deter migration in circumstances where individuals expect the earning opportunities in their home areas to grow more rapidly in the future than those at destination.

Although levels of patience may matter in some circumstances, in many cases some of the main gains from migration, especially in terms of income, are rapid. For example, McKenzie et al. (2010) find Tongans moving to New Zealand experience a 263 percent increase in income within the first year. Likewise, the existence of many seasonal and temporary migration programs, including large-scale migration to the Gulf countries is consistent with many migrants getting immediate benefits from moving. The benefits from internal migration during the hungry season in Bryan et al. (2014) also occur rapidly. As a result, in many settings, it seems unlikely that impatience is the main reason why more people do not move.

Incorrect information/expectations – people are making the wrong decision not to move. A first reason people might not migrate is that their information set Ω does not contain accurate information about the true benefits of moving. Schewel (2020) notes the possibility that this information set may not even include some destinations at all, as cognitive and societal constraints on decision-making may lead some individuals to only consider a restricted subset of possible destinations to choose amongst. But even amongst the consideration set, information may be wrong. McKenzie et al. (2013) measure the expectations of Tongans about the likelihood of working and the incomes they would earn if they migrated to New Zealand, and find that expected income from migrating for men is only 37 percent of what similar individuals who get to migrate through a lottery actually earn. They suggest that this misinformation arises in part from immigrants understating their incomes to reduce remittance pressure. Baseler (2021) finds a similar result for internal migration in Kenya, finding that parents, friends and neighbors all underestimate the income of migrants on average, with this effect larger when parents expect a larger share to be remitted. If this is the problem, providing more accurate information may be enough to induce movement. Baseler (2021) provides rural Kenyan households with accurate information about earnings in Nairobi, and finds this does induce more migration. But in most cases, the gains from migrating can be so large, that even if there is some understatement, a lack of information is not the main barrier to movement. Bryan et al. (2014) find that job information alone does not induce more internal migration from rural Bangladesh, and McKenzie et al. (2014) find no effect on international migration from the Philippines of providing information.

Moreover, in some cases this misinformation may result in potential migrants being over-optimistic about the wages and conditions they will face abroad. Shrestha (2020) finds potential migrants from Nepal overestimate their earning potential abroad, and that providing correct wage information lowers migration. Misinformation about the true costs of moving and wages to be earned abroad is seen as one potential cause of the dangerous irregular migration journeys seen across the Mediterranean and U.S.-Mexican border, leading to ongoing policy efforts and research studies aiming to test whether providing more accurate information will lower this form of migration.

Liquidity constraints – people would like to move, but cannot afford the costs of moving. A third reason for not migrating is that the budget constraint $C \leq B$ binds, and poor individuals cannot

afford the upfront costs of migrating, even though they would benefit from moving. We will discuss next what some of the costs of migrating are, since, all else equal, the budget constraint will be more likely to bind the higher is C . But at a minimum, we may think more about just being able to pay the costs of travel. Bryan et al. (2014) found that an \$8.50 incentive, enough to pay for the cost of a bus to the city, was enough to induce people near subsistence to migrate. However, they view this as not simply capturing liquidity constraints, but also insurance against the risk of migrating not working out. Cai (2020) finds that randomized access to microcredit increased internal migration in China, especially in places with low asset levels and high migration costs, which is taken as evidence of liquidity constraints being important there. The costs are higher for international travel, and several studies which look at the impact of an exogenous increase in income or wealth for poor people have found increases in migration (e.g. Gazeaud et al. (2019) in Comoros; Bazzi (2017) in Indonesia, and Angelucci (2015) in Mexico). Likewise, at the macro level, international migration rates are low for poor countries, and increase at first with the level of development, with financial constraints being one key for people in the poorest countries not migrating (Dao et al, 2018). Liquidity constraints therefore seem to be one important factor, although we have not seen studies that offer credit for international migration and measure the impacts. At one level we might think liquidity constraints bind very tightly for many people – for example, if the only opportunity to migrate legally to the United States is to pay \$50,000, \$100,000 or more for enrollment in a university program here, there are likely to be many people around the world for whom this could be a good investment, but who cannot pay the costs. As an even more extreme example, many countries offer special investor visas for those with enough money – which in the case of the U.S. EB-5 program, requires investing US\$1.8 million (or \$900,000 if investing in targeted employment areas).

Explicit policy barriers that directly limit migration. Policy barriers such as limits on legal migration can be viewed as making the cost term C extremely large (or almost infinite) in some cases, so that no matter the gains from migrating, there is no way for some people to take advantage of them. One type of policy barrier is an explicit quota on the number of migrants who can come in through a certain category, or from a particular country. An ILO (2004) survey found that most quotas tend to be partial in nature, applying only to certain sectors, types of firms, or migration streams. Perhaps more prevalent are labor market tests that require employers to show that there is a lack of qualified applicants, or requiring that migrant workers be offered at least the prevailing

wage offered to nationals in their occupation. McKenzie et al. (2014) show that this effectively results in binding minimum wages for immigrants, which provides one reason for the large wage gains possible with migration, but means that the supply of potential migrants exceeds demand at the legally required wage. Some migrant-origin countries also impose these restrictions. For example, McKenzie et al. (2014) show that when the Philippines increased the minimum wage at which Filipinas could take jobs as domestic workers abroad, this increased the wages of those who did migrate, but resulted in a large fall in the number who were able to migrate.

While these policy barriers matter, some research suggests that they may not be the main reason more people do not migrate in many cases. For example, Jasso and Rosenzweig (2008) compare immigration into Australia and the United States, and argue that the differences in their migration policies matter far less than the differences in the returns to skills in the two countries, and than their geography – which determinants the size and level of development of close neighbors. Moreover, we still see many people not move even in cases where there are no formal policy barriers. For example, Akee (2010) finds that less than 1 percent of the population moves from the Federated States of Micronesia to the United States within three years, despite per capita income levels being one-tenth of those in the United States and a compact of association allowing free movement. Likewise, the expansion of the European Union to include poorer Eastern European countries was accompanied by fewer than 5 percent of the population of the EU accession countries residing abroad five years after EU enlargement (Kahanec, 2012).

Although we might think explicit policy barriers to directly limit internal migration are much rarer, apart from a few exceptions such as China's hukou household registration system, in fact many governments do try to discourage rural to urban migration. Bundervoet (2018) reports on a 2013 United Nations survey, in which 148 out of 185 countries had government policies aimed at reducing migration from rural to urban areas, and only five had policies designed to speed up this form of internal migration. These policies tend not to be legal restrictions against internal migration, but rather policies that make it more costly or difficult for migrants to access various public services when they arrive. Bundervoet gives the example of Ethiopia, where internal migrants can struggle to access urban ID cards, access housing, or access subsidized food.

The costs of moving are so large that they exceed the benefits. Apart from explicit policy barriers, another potential reason for not migrating is that the other components of C are large, so that even

if the income to be earned from moving greatly exceeds that at home, the net benefit is still not positive. C is a catch-all term that incorporates a range of monetary costs (cost of securing a job at the destination, which could include paying fees to middlemen or intermediaries; transportation and costs of getting established in a new location, which could include smuggling costs for irregular migration; paying for visas, passports, medical screening, and other documentation; costs incurred in selling property or land; the value from a loss of informal risk-sharing mechanisms; etc.) as well as non-monetary costs (the cost of being separated from family and culture, the mental effort costs of organizing a move and establishing oneself in a new place, violence or other negative impacts suffered during irregular migration journeys, etc.). Because of this catch-all nature of C , one approach has been a structural one, in which economists observe what the gains from migration are, and then infer that the costs must be very high to justify a lack of more migration (e.g. Bryan and Morten, 2019; Imbert and Papp, 2020). But without knowing what these costs are, it becomes harder to design policy interventions, and models which back out the costs from migration decisions assume that these decisions are fully optimal.

An alternative approach has been to measure and document specific elements of these costs, and/or to measure impacts of policy changes which alleviate some of them. For example, recent studies have shown that new roads increased internal migration in Brazil (Morten and Oliveira, 2018); that building more miles of border walls along the U.S.-Mexico border changed where people migrate, but had limited impacts on whether they migrate (Allen et al, 2019); and that providing potential migrants in Indonesia with information on intermediary quality reduced migration rates, but improved some non-wage outcomes for those who do migrate (Bazzi et al, 2021). McKenzie (2007) documents that the cost of obtaining a passport is extremely high relative to incomes in many countries, and is associated with lower migration rates in the cross-section. Beam et al. (2016) then aimed to lower barriers to migrating from the Philippines by paying for the costs of obtaining a passport, and also by lowering job search frictions through a job website. This led people to take more steps towards migrating, but had no impact on the migration rate.

Missing markets in the origin community can increase the costs of moving, with the direct policy implication being efforts to improve these markets. For example, Munshi and Rosenzweig (2016) show how, in the absence of formal insurance markets, caste-based networks in rural India help households to smooth rural income risk. But then migration is inhibited by the cost to remaining

household members of giving up this informal insurance, and the authors show in their structural model that an increase in formal insurance at origin would increase migration. Missing land markets and/or incomplete property rights over land can also increase the cost of migration, since migrants may lose the value of their land assets when moving. De Janvry et al. (2015) show that a large land reform program in Mexico that provided formal land certification increased migration. This increase was large in relative terms (a 28 percent increase in the likelihood households had a migrant), but small in absolute terms (a 1.5 percentage point increase in migration). Finally, missing or incomplete asset markets may make it hard for self-employed individuals to sell their businesses, creating a lock-in effect that increases their costs of migrating (Giambra and McKenzie, 2021).

Migrant networks can change the extent to which these different constraints bind. Networks can provide information on job opportunities abroad, help finance travel and thus reduce liquidity constraints, and lower the costs of migrating (Munshi, 2020). The result is that as migrant networks grow, fewer people may be constrained by these factors. For example, McKenzie and Rapoport (2007) show how migrant networks can lower the costs of migrating, allowing poorer people to migrate from Mexican villages over time.

The importance of these different factors will be shaped by more structural and societal factors, and are likely to differ with individual characteristics like gender, age, ethnicity and wealth. For example, Schewel (2020) notes that women in many societies may face stronger social expectations on staying to look after family members at home, and social barriers (or explicit policy barriers, see McKenzie, 2007) on movement.

Although these three factors (information, liquidity constraints, and migration costs) are very important, they are not the full story for why so few people migrate. Indeed, one of the surprises to me has been just how hard it has been to get people to migrate through experiments which just aim to alleviate these constraints. This was the case in Beam et al. (2016), and also in Bah et al. (2022) in The Gambia, where efforts to encourage migration to Dakar, Senegal, through paying for transportation and providing information had minimal impact. We also see many people not migrating within countries, or within areas of free movement such as between Puerto Rico, Micronesia, and the United States, or within the European Union. I therefore want to turn to two additional reasons that more people do not move.

5. Fears: The risk and uncertainty of migration

Risk has long been a central part of thinking about migration decisions. The classic model of Harris and Todaro (1970) considers urban employment in the formal sector to pay higher wages than rural jobs, but with a risk of being unemployed. This idea of migration as a high-risk, high-return activity then views the lack of migration as coming from people being risk averse and being unable to fully insure the risks of migrating. Indeed, there is evidence from a wide range of countries that more risk averse individuals are less willing to migrate (Huber and Nowotny, 2020). Of course, in practice, rural agricultural activities also involve substantial risk, and small towns that depend highly on one industry are much more at risk of sector-specific shocks than large, diversified cities. Migration can then be part of a risk diversification strategy of households (Stark and Bloom, 1985).

In lab experiments which ask individuals to consider a range of migration scenarios, adding a risk of unemployment at destination is a strong driver of a reduction in migration rates (Batista and McKenzie, 2021). But in many cases, the probability of not finding a job may be something that potential migrants can at least form reasonable priors over, and therefore treat migration like many other investment decisions, using this probability of unemployment when calculating the expected earnings and the expected change in utility from moving. Moreover, getting a job or not may be an outcome that is verifiable, and that informal risk-sharing networks at destination or even at home can at least provide some partial insurance against.

In contrast, I think economists have devoted far less attention to what I call *fears*, which is the enormous uncertainty associated with migration that is difficult to quantify. This type of unquantifiable uncertainty, also known as Knightian uncertainty, may include fears about the safety conditions at destination (Shrestha, 2020 finds Nepalese migrants overestimate the risks of death), the ability to make friends and fit in, about whether one will like living in the new location, etc. With Knightian uncertainty, there is no unique probability distribution of possible outcomes of employment, wages, and amenities, and so individuals cannot make decisions by just choosing the action which maximizes expected utility. Bewley (2002) argues that in such cases, there can be a bias towards inertia. A decision-maker may remain with the status quo unless one alternative dominates another under all possible probability distributions. This can create a bias towards immobility, since individuals will only move if doing so is better under all possible probability distributions. This may also explain why we see less migration in the aggregate than an expected

cost-benefit calculation would suggest, since individuals do not know if they personally will be the ones benefiting from movement, even if on average across the full range of possible distributions the aggregate benefits are positive. This is somewhat analogous to the idea of Fernandez and Rodrik (1991) that uncertainty about individual outcomes can block policy reforms that would in the aggregate be efficiency-enhancing.

Not only is this type of uncertainty hard to quantify in advance, but it can also be hard for others to verify *ex post*, and it is thus not surprising that it is not possible to insure against it. In the lab experiment of Batista and McKenzie (2021), it was the combination of incomplete information and risk that had the largest impact on reducing migration. Indeed, this *fear* of the unknown means that even if individuals are unhappy in their home location, they will be afraid to move. The fact that in many cases migrating is not a one-time choice, but a decision that can be postponed may further mean that there is a tendency to put off facing these fears. These types of fears are likely to be greatest for those considering moving to places where they do not know anyone – the presence of family or community migration networks may help reduce these fears.

6. Tears: The endogeneity of preferences and migration

I noted the “attachment to place” that led me to cry when moving. In the context of my equation, these could be viewed as part of the so-called psychic costs of moving (and this a reason why C is high), as well as capturing some of my tastes for the amenities at home A^H compared to those abroad A^M . This value is important, and includes many factors that reduce the benefits of migrating such as the presence of family and friends at home, and the crowded housing conditions and unpleasant working conditions some migrants face at destination. But the key is that our standard economic theory takes these psychic costs as exogenously given, and assumes that the way we value wages and amenities does not itself change with migration, that is, that $U(.)$ does not change, just the arguments inside of it. For example, in his classic paper, Sjaastad (1965, p. 85 writes):

“Since people are often genuinely reluctant to leave familiar surroundings, family, and friends, migration involves a “psychic” cost. It would be difficult to quantify these costs; moreover, if they were quantified, they should be treated quite differently from the [monetary] costs previously considered....The optimal allocation of resources must take tastes as given, and will differ accordingly if people prefer familiar over strange surroundings. Migration incentive transfers to

compensate for these psychic costs would be as inappropriate as transfers to render people indifferent among occupations even though strong preferences may exist.”

However, I would like to argue that there are both empirical and behavioral reasons to believe that these psychic costs should not necessarily be taken as given, but rather that preferences may change with migration itself, making decision-making location-inconsistent. Gibson et al. (2019) show that migrating does not change some core aspects of the decision-making problem, such as risk and time preferences, or the decision-making efficiency in households. However, other aspects of preference for place may change. That is, I do not think we can simply rely on revealed-preference to observe that some people choose not to migrate, and therefore conclude that it would not be beneficial for them to do so given the information they have, liquidity constraints they face, the costs of moving, and their risk preferences.

Empirical evidence for the view that there are people who choose not to migrate, who would benefit from doing so, comes from studies of cases of forced internal movement in more developed countries.⁶ For example, Deryugina et al. (2018) note that Hurricane Katrina displaced over one-quarter of New Orleans households, providing a shock to their mobility. Comparing these households to matched households in similar cities, they find that hurricane victims actually have higher incomes than control households within a couple of years, with these gains highest for those who left and never returned. Sarvimäki et al. (2020) study the long-term impact of forced migration in Finland after World War II. They estimate large positive long-run effects of displacement on earnings of men working in agriculture prior to displacement, compared to nearby neighbors who were not displaced. The benefit of moving may be particularly high for those who are young. For example, Nakamura et al. (2021) study the consequences of a volcanic eruption that affected houses in a fishing community on an island off the coast of Iceland, with the whole island being evacuated for several months, and about one-third of the houses destroyed by lava. Those whose houses were destroyed were much more likely to move, and the authors find massive benefits to their children, with an estimated net present value on life-time earnings of \$440,000. Chyn (2018) finds that children in Chicago who were forced to migrate because of demolition of public housing

⁶ This is definitely not to suggest that forced migration does not entail all sorts of costs to people, or is always beneficial, just that there are examples where people who would not have moved if not for this push appear to have benefited from doing so. See Becker and Ferrara (2019) for a recent survey that covers many other aspects of forced migration.

have better labor market outcomes as young adults than similar children in public housing that was not demolished.

I think there are several psychological concepts that help determine how people think and do not think about migration decisions. The first is *status quo bias* (Samuelson and Zeckhauser, 1988), which describes a preference for doing nothing or maintaining one's current or previous decision. With migration decisions, remaining in the current location is usually the status quo, and choosing to migrate involves taking action and doing something new. Samuelson and Zeckhauser note several reasons for status quo bias that seem applicable in the migration context. A first is *regret avoidance*, where there tends to be "stronger regret for bad outcomes that are consequences of new actions taken than for similar bad consequences resulting from inaction". Moving to a new city or country is a big new action, and may involve more regret than negative consequences that come from deciding to continue living in the same place. A second is *loss aversion*, whereby people weigh potential losses heavier than potential gains when making decisions. This is true also with concave utility (risk averse individuals do not take fair bets). The key additional feature with loss aversion is that there is a kink at the reference point for decisions, and often not moving is the natural reference point with which individuals compare gains and losses from moving. A different decision could be arrived at if the default choice was to move, and individuals were then deciding whether to continue with the move or instead change their mind and not move. A final related aspect is *ambiguity aversion*, where individuals prefer known over unknown risks. Since they know the risks life at home entails, and the risks associated with movement are uncertain, this reinforces a bias towards the status quo. This relates to the Bewley (2002) argument discussed previously, whereby Knightian uncertainty can lead to a bias for the status quo.

However, I think a bigger part of the reason for tears upon moving and not having these same tears upon deciding to stay is the inability to picture what you are giving up when you do not move. It is easy to visualize that moving entails losses from not being able to meet up with your current friends, go to your current favorite restaurants, or enjoy your current favorite running trails. But it is much harder to visualize the losses that not migrating brings: the friends in the new place that you will never meet if you do not move, the experiences of a brand new environment that you will never get to appreciate, etc. Gabaix and Laibson (2017) argue that people have only noisy information about the future and that it is harder to forecast the further into the future one looks,

with these features causing individuals to behave as if they have very myopic preferences, preferring the future. A similar idea might apply when considering the signals individuals have about utility in different locations – they will have much more precise signals about their utility in their current location than in alternative locations, which could result in a preference for not moving. Studies of how consumers make purchase decisions have discussed the possibility of *opportunity cost neglect*, whereby they sometimes fail to recognize what they are giving up by choosing one purchase over another (Frederick et al, 2009). It may be particularly easy to neglect the opportunity cost of not moving when what is being given up is hard to picture.

It is not just that individuals may fail to recognize what they are giving up by not migrating, but also that, unlike Sjaastad's (1965) view, I see these psychic costs as changing with migration itself. Sarvimäki et al. (2020), for example, model migration as forming a habit for a particular residential location, where people grow more attached to a place the longer they live there. There is a psychological bias known as the *end of history illusion* (Quoidbach et al. 2013), whereby individuals recognize how much they have changed in the past, but believe that they will change very little in the future. It seems likely that individuals recognize how much they have grown to appreciate their current location, but also fail to recognize how much migrating will change their attachment to a new place. Failure to account for how much they may assimilate and integrate into a new location may lead individuals making decisions based on the preferences of the current-location-self, without considering how they themselves will change with time spent somewhere else.

This combination of factors casts doubt on the ability to simply infer what the costs of movement are from observing migration choices, especially given the possibility that people are not necessarily optimizing when making these choices, and that these costs are themselves endogenous to migration decisions.

These ideas offer several intriguing ideas for future policy interventions. If failure to migrate stems in part from an inability to picture the costs of not moving, then efforts to help potential migrants better visualize and understand what life might be like if they migrated could be useful. For example, John and Orkin (2021) examine the role of behavioral constraints in explaining why more women in rural Kenya do not chlorinate their water. They implement a visualization treatment, where participants are asked to visualize alternative realizations of the future, depending on their

present behavior. They find this increases chlorine use, which they interpret in part to individuals improving their mental forecasts of the future. Something similar could be done with potential migrants, helping them to visualize their life under different migration choices. This could be done via interactive online games, as was done by Rodríguez and Rozo (2021) to help natives visualize the lives of immigrants, or using virtual reality (VR) technology as in Alejandro Iñárritu's *Carne y Arena*, which uses VR to help others experience the journeys of Mexican and Central American immigrants.

A second policy approach is to provide more ways for individuals to picture what they are giving up by not moving through facilitating visits or shorter-term migrations. To date this idea is much more used with return migration than with fostering migration in the first place. McKenzie and Yang (2015) discuss several of these types of policies: go-and-see visits that allow refugees to go back to their former countries and see whether conditions are such that they would like to return, and temporary return programs for high-skilled migrants. Such programs may help address both the fears and the tears aspects of moving, by reducing uncertainty and lowering the psychic costs of movement.

If we think part of the lack of movement is due to a status quo bias in which not moving is seen as the status quo, then there may be situations in which the default decision can be reframed as migrating, with individuals then having to actively choose if they wish to remain at home. For example, governments and large employers recruiting new graduates could have a default of people moving, and then the choice becomes which location, with the home location then having to be explicitly requested.

Finally, the rise in remote-working associated with the COVID-19 pandemic raises the question of whether many of the gains from working in another location can now be accomplished without the need to physically move and change amenities. This will be possible for some types of high-skilled jobs in the technology field, but is unlikely to be a solution for many of the jobs in which migrants are commonly found. For example, Yassenov (2020) finds that only 30 percent of the migrants in the United States have jobs in which remote working is potentially feasible, compared to 45 percent of natives.

7. Conclusions

Both internal and international migration appear to offer large benefits for many individuals, and for the optimal allocation of labor within and across countries. Yet most people never move in their lives. There are many potential reasons for this lack of movement, including information failures, liquidity constraints, high costs and policy barriers, and risk. These reasons are important, and interventions to reduce these barriers to movement offer the potential to improve welfare. However, I argue that there are two other reasons for lack of movement that have been less a part of economic theories of migration. Fears about the uncertainty involved in migrating inhibit movement, especially when many of factors people are uncertain about may be difficult to quantify the risk of, or to insure against. Tears that accompany migration reveal the attachment people have to a particular place. Although this attachment has large value to many people, and can reduce the initial benefits of migrating, a status quo bias and an inability to picture what one is giving up by not migrating may cause an excessive attachment to the current location. Recognition of these two factors suggests new avenues for policy, such as testing ways to help potential migrants better visualize the opportunity cost of not moving, facilitating short-term visits that help reduce uncertainty, and efforts to change the default people have in mind when making location decisions.

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