

Forced Displacement Literature Review¹

September 2019

Dear Colleagues,

The Joint Data Center on Forced Displacement (JDC) is delighted to present its inaugural monthly literature review on forced displacement.

We hope you will find that it brings together—in a clear, concise and readable format—recent academic scholarship, up-to-date statistics, and thought leadership relevant to the field. Our intention is to stimulate discussion, more research, and encourage the exchange of ideas on topics related to forced displacement.

This initiative is a part of achieving the JDC mission: to enhance the ability of stakeholders to make timely and evidence-informed decisions that can improve the lives of affected people. It builds on literature reviews prepared by the Bank's Fragility Conflict and Violence Group over the past 18 months. Back issues of those reviews are available to all subscribers.

The product will be developed over time, making it searchable and easily shareable. We welcome your feedback on this first issue and invite any suggestions for future issues. Please address them to Zara Sarzin (zsarzin@worldbank.org), who is the author of the literature reviews.

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Björn Gillsäter

Head of the Joint Data Center on Forced Displacement
— a partnership between the World Bank and UNHCR



¹ The JDC Literature Review provides summaries of recently published research to encourage the exchange of ideas on topics related to forced displacement. The findings, interpretations and conclusions expressed in the literature included in this review are entirely those of their authors and do not necessarily represent the views of the Joint Data Center, UNHCR, the World Bank, the Executive Directors of the World Bank or the governments they represent. For convenience, the literature review contains links to websites operated by third parties. The Joint Data Center and its affiliate organizations do not represent or endorse these sites or the content, services and products they may offer, and do not guarantee the accuracy or reliability of any information, data, opinions, advice or statements provided on these sites.

Table of Content

Living with the Neighbors: The Effect of Venezuelan Forced Migration on Wages in Colombia.....	3
Integrating Venezuelans into the Colombian Labor Market	4
Labor Market Activities of Syrian Refugees in Turkey	5
An Empirical Analysis of the Effects of Syrian Refugees on the Turkish Labor Market	7
Two and a Half Million Syrian Refugees, Tasks and Capital Intensity	8
Vulnerability and Protection of Refugees in Turkey: Findings from the Rollout of the Largest Humanitarian Cash Assistance Program in the World	9
Refugees and 'Native Flight' from Public to Private Schools	11
Opportunities and Challenges of Emerging Technologies for the Refugee System	12
Digital Developments Harbingers of Humanitarian Change?.....	13
Governance of the Global Refugee Regime.....	14

Living with the Neighbors: The Effect of Venezuelan Forced Migration on Wages in Colombia

Leonardo Peñaloza Pacheco

Serie de Documentos de Trabajo del CEDLAS No. 248, July 2019

Center of Distributive, Labor and Social Studies (CEDLAS), Facultad de Ciencias Económicas, Universidad Nacional de La Plata

<http://www.cedlas.econo.unlp.edu.ar/wp/en/no-248/>

This paper **investigates the impact of Venezuelan migration on the real wage in Colombia**. The author exploits the exogenous shock to the Colombian labor supply due to large-scale inflows of Venezuelans beginning in the second half of 2016 when the borders between the two countries were reopened after about a year of being closed. The analysis relies on labor and socioeconomic data from the *Gran Encuesta Integrada de Hogares* of Colombia's Departamento Administrativo Nacional de Estadística (DANE), data on migratory flows of Venezuelans in Colombia from the Unidad Administrativa Especial de Migración Colombia (UAEMC), and data on the numbers of Venezuelans living irregularly in Colombia from the Registro Administrativo de Migrantes Venezolanos (RAMV).

Key findings:

- Following the opening of the border between Colombia and Venezuela in the second half of 2016 there were significant inflows of Venezuelan migrants to Colombia, the majority settling in regions near the border. **The Economically Active Population (EAP) of the border regions of La Guajira and Norte de Santander is estimated to have increased by approximately 10 to 15 percent since the reopening of the border in 2016.**
- **The increase in labor supply in La Guajira and Norte de Santander caused a decline in real hourly wages of approximately 6 to 9 percent on average.**
- **The decline in real wages was larger for workers with lower skills** (defined as individuals with less than a secondary-level education). Low-skilled workers experienced a decline in real wages, on average, 7 percentage points greater than that experienced by skilled workers. This result is consistent with other studies indicating the 'downgrading' of migrants and refugees, i.e. regardless of educational attainment and skill level, migrants and refugees frequently work in low-skilled jobs, generating pressure on real wages in this segment of the labor market.
- **The effect was also stronger for informal workers** (defined as individuals without employer contributions to a pension fund or contributory health plan). On average, wages fell by approximately 9 percentage points more for informal workers compared to formal workers. This result suggests that Venezuelan migrants are participating mainly in the informal labor market.
- **There is a stronger decline in the real wage for men than for women**, consistent with a traditional role assignment within households. The male labor supply increased at a greater rate than the female labor supply, producing a larger wage decline for male workers.

In his conclusion, the author **argues for state intervention in regions receiving Venezuelan migrants to mitigate the effect of the labor supply shock on real wages**, including programs to generate employment and/or boost aggregate demand.

Integrating Venezuelans into the Colombian Labor Market

Dany Bahar, Meagan Dooley, and Cindy Huang

Brookings Institute, Policy Brief, December 2018

<https://www.brookings.edu/research/integrating-venezuelans-into-the-colombian-labor-market/>

As of December 2018, Colombia hosted more than one million forced migrants who had fled the escalating economic, political and humanitarian crisis in Venezuela. Colombia has embarked on a process of regularizing more than 442,000 eligible Venezuelan migrants—undocumented migrants who voluntarily registered with the Registro Administrativo de Migrantes Venezolanos (RAMV)—providing them with a Permiso Especial de Permanencia (Special Stay Permit; PEP) that allows them to stay and work in Colombia. This policy brief **describes the main characteristics of the population of Venezuelan migrants undergoing the regularization process and the potential impacts on the Colombian economy.**

Key messages:

- **The population of newly regularized migrants is predominately young, moderately educated, and ready to engage in the labor force.** Over 75 percent are of working age, and 83 percent of those have completed at least secondary education. Compared to the Colombian labor force, the newly regularized migrants are younger and more educated. If well integrated into the labor force, they could contribute to economic growth and productivity.
- **Newly regularized Venezuelan migrants are highly concentrated around the border, with eight municipalities (out of 1,122 municipalities) hosting over 31 percent of all Venezuelan migrants.** Puerto Santander (Norte de Santander), Villa del Rosario (Norte de Santander), and Maicao (La Guajira) have the largest per capita concentration of Venezuelan migrants: 23.6 percent, 17.5 percent and 16.6 percent, respectively. However, in the vast majority of municipalities, newly regularized migrants make up less than one percent of the municipal population. Large metropolitan centers have low per capita concentrations of Venezuelan migrants (Bogota, 0.53 percent; Medellin, 0.46 percent; Cali, 0.43 percent; Barranquilla, 1.74 percent and Cartagena, 1.34 percent).
- **The impact of regularized Venezuelan migrants on the labor market depends on whether their labor is a substitute for or complement to native workers.** If migrants are complements to native workers, then wages of natives would increase; if migrants are substitutes for native workers, their entry into the labor market would put downward pressure on wages. The authors surmise that regularized Venezuelan migrants are more likely to be complements to native workers given differences in their demographic profile and educational attainment, but acknowledge the potential for negative labor market outcomes, especially in areas with high concentrations of migrants. The authors note that in countries like Colombia where the informal sector is already large, granting formal labor market access may have less of an impact on labor market outcomes for natives.

- **Economic integration is potentially beneficial for host countries as well as migrants.** When migrants join the formal labor force, they increase their incomes and reduce their reliance on social assistance. They can also attain greater bargaining power in the workplace, which they can use to push for better salaries and safer working environments, with positive spillover effects in the informal labor market. Host countries benefit from the expansion in the tax base, as well as the injection of new skills and ideas into the economy, which can lead to economic innovation and the creation of new businesses and jobs.
- **Colombia can enhance the impact of regularization of migrants by investing in complementary policies to mitigate the negative effects of migrant integration and promote positive labor force outcomes.** The authors recommend measures to avoid job displacement of those Colombians whose skills could be substitutes for migrant labor, for example by injecting capital into highly impacted regions. In addition, the authors recommend a policy of voluntary, incentivized relocation of Venezuelan migrants within Colombia to both ease pressure on infrastructure in the border regions and give migrants access to more dynamic sub-national economies. Such a relocation scheme would need to take into account factors such as regional unemployment rates, relative sizes of informal labor markets, and the business climate.

Labor Market Activities of Syrian Refugees in Turkey

Aysegul Kayaoglu and M. Murat Erdogan

Economic Research Forum, Working Paper 1290, February 2019

<http://erf.org.eg/publications/labor-market-activities-of-syrian-refugees-in-turkey/>

As of December 2018, there were 3.7 million Syrian refugees registered in Turkey, a fifth of whom wish to remain in Turkey even after the conflict in Syria ends. This paper **examines the factors associated with the economic integration of Syrian refugees in Turkey**. The analysis is based on the 2017 Syrian Barometer survey of 1,235 Syrian refugees in ten major refugee-hosting regions. Descriptive statistics reveal that 58.3 percent of refugees in the sample (aged above 11) are in the labor force including 38.6 percent who are employed and 19.7 percent who are unemployed. The employment rate is higher for self-settled refugees (43.0 percent) compared to refugees in camps (24.5 percent). Among employed refugees, only 40.7 percent work in regular paid jobs while 49.3 percent work as seasonal or irregular (daily) jobs without regular wage income.

The empirical analysis reveals:

- **On average, refugees who are younger, male, have post-secondary school qualifications, had higher incomes in Syria, and have better Turkish language proficiency, are more likely to be employed.** Older Syrians are less likely to find a job (probability of unemployment increases while probability of employment decreases) and are more likely to leave the labor market when they live outside of camps. Compared to male refugees, female refugees have a 37 percent higher probability of being inactive in the labor market (lower probability of being employed and unemployed). Syrians with post-secondary school qualifications have 9 percent lower probability of being unemployed compared to those without any post-secondary qualifications, and have a 12 percent higher chance of being employed and 17 percent lower chance of being inactive in the labor market. A higher income level in Syria decreases the probability of being unemployed and increases the chance of being employed. Higher Turkish

language proficiency reduces the risk of being unemployed and increases the likelihood of finding employment.

- **Self-settlement is found to decrease the probability of being unemployed and increase the probability of being out of the labor market, compared to refugees living in temporary protection camps.** Living outside camps increases the probability of being inactive in the labor market while decreases the probability of being unemployed by 5.5 percent.
- **Marriage seems to decrease the probability of being unemployed compared to single people.** This could be due to greater financial responsibilities and consequently increased pressure to find a job.
- **Duration of displacement seems to play little role in economic integration.** Months since migration has only a small association with a decrease in unemployment and no statistically significant effect on employment.
- **Women at all ages are found to have a higher probability of being inactive compared to men in the same age groups.** For example, at age 30, women have 50 percentage point higher probability of being inactive.
- **Refugees who have higher levels of education, are female, have better Turkish language proficiency, belong to later cohorts (except 2016) and live in Bursa, Gaziantep and Izmir have a higher probability of working in a regular job once they are employed.** Having an above high school diploma increases the chance of being employed in a regular job by 37.8 percent and decreases the probability of working in a casual job by almost 40 percent compared to Syrians without a diploma. Women have a 12.4 percent higher likelihood of working in a regular job. Turkish proficiency does not contribute to the probability of self-employment but increases the chance of having a regular job while decreases the probability of being in a casual work. These results do not change when non-border provinces are excluded from the sample.
- **Refugees who are older, had higher incomes in Syria and who live outside the camps are more likely to be self-employed.** Syrians who are older are less likely to work in a casual job and are more likely to be self-employed. Previous income in Syria is positively correlated with the probability of being self-employed and decreases the probability of working in a casual work. Living outside the camps increases the probability of being self-employed by almost 17 percent and decreases the chance of working in a casual work by 11 percent.

In their conclusion, the authors **highlight the significant role of education and Turkish language proficiency in the employment prospects of refugees and recommend that the government focuses urgently on policies that will bring improvements in these areas.**

An Empirical Analysis of the Effects of Syrian Refugees on the Turkish Labor Market

Ken Suzuki, Saumik Paul, Takeshi Maru, and Motoi Kusadokoro

Asian Development Bank Institute (ADBI) Working Paper No. 935, March 2019

<https://www.adb.org/publications/empirical-analysis-effects-syrian-refugees-turkish-labor-market>

This paper **investigates the causal effect of the influx of Syrian refugees on the Turkish labor market**. The analysis is based on demographic and labor market data from the Turkish Household Labor Force Survey (HLFS) from 2010 to 2015 (inclusive), together with data on the regional distribution of Syrian refugees in Turkey. The authors select five refugee-hosting regions close to the Syrian border with the highest refugee-to-population ratio as treatment regions and four comparable regions with a low refugee-to-population ratio as control regions. Using a difference-in-differences approach the authors analyze the effects of Syrian refugees on labor force participation, unemployment, informal employment, and formal employment (employed individuals are classified as being in formal employment if they were registered with the social security).

Key findings:

- **Overall, labor force participation decreased and unemployment increased** for the total sample after the influx of Syrian refugees.
- **Syrian refugees reduced the likelihood of Turks having an informal job in the treatment regions compared with the control regions.** Informal Turkish workers in the refugee-hosting regions were 3.9 percent more likely to leave their job than workers in regions that did not widely host refugees.
- **The influx affected Turks heterogeneously, by gender, age, and level of education, with more pronounced adverse effects among female, older and less-educated workers.** Female, older and less educated workers were more likely to leave the labor force, while male, younger and more educated workers were more likely to stay in the labor force and become unemployed. The authors surmise that: Syrian refugees may have competed especially with female and less-educated Turks for informal jobs; socio-cultural barriers in the Turkish society may have prompted females to withdraw from the labor market after the Syrian refugee shock; and older workers may have withdrawn from the labor market because employers prefer young refugees to older Turks in the informal, physical, labor-intensive sector.
- **Negative impacts on labor market outcomes became larger in 2014–2015 compared with 2012–2013.** The negative impact on the likelihood of Turks having an informal job doubled in 2014–2015 compared with the impact in 2012–2013. The probability of being unemployed also more than doubled in 2014–2015. The authors suggest that the rapid increase in the number of refugees since 2014 may explain the larger impacts in 2014–2015 than in 2012–2013.

The authors argue that since refugees have displaced Turkish informal-sector workers, and since social security programs do not cover informal workers, their living conditions are likely to worsen. They **recommend that the government increase efforts to include informal workers in social programs**, such as unemployment benefits, job training, and matching to potential employers.

Two and a Half Million Syrian Refugees, Tasks and Capital Intensity

Yusuf Emre Akgündüz and Huzeyfe Torun

Central Bank of the Republic of Turkey, Working Paper No. 19/23, August 2019

<https://www.tcmb.gov.tr/wps/wcm/connect/EN/TCMB+EN/Main+Menu/Publications/Research/Working+Papers/2019/19-23>

This paper **investigates how the rapid increase in the low-skilled labor supply in Turkey induced by the inflow of 2.5 million Syrian refugees changed the tasks performed by Turkish workers and the capital intensity of Turkish firms.** Despite the unexpected nature of the refugee inflow, refugees' choice of location may be endogenous to labor market opportunities of host regions. To handle this endogeneity, the authors identify the causal effects of Syrian refugees by using the distance between the host cities in Turkey and hometowns in Syria in an instrumental variables approach. The empirical analysis also builds on the stylized fact that most Syrian refugees have few skills that are valued in the Turkish labor market and that the low-skill labor they provide will be complements with some inputs and substitutes for others. The analysis is based on several administrative and survey datasets (using 2014 and 2015 as treatment years and 2010 and 2011 as control years).

Key findings:

- **Overall, the refugee inflow pushed Turkish workers from manual-intensive jobs towards more complex jobs that involve abstract tasks**—either by replacing Turkish workers in manual intensive jobs or by transforming the mix of tasks performed by Turkish workers.
- **Young and highly educated natives moved towards higher complexity jobs.** Highly educated workers are better able to adapt their occupations to those that are complementary to the labor supply of refugees. Their employment and abstract intensity rises while routine and manual intensities fall. The reallocation of employees to more complex tasks occurs for younger employees aged 15-34.
- **Lower educated employees show no significant change in their tasks and also drive the negative effect on native employment.** Refugee labor is a substitute for the tasks performed by the lower educated, who are driven out of employment as result. Their inability to adjust to tasks that are complementary to Syrian labor inputs may explain why their employment outcomes are negatively affected.
- **The refugee inflow causes a decline in the capital intensity and investment rates of manufacturing firms in refugee hosting regions.** This effect is larger and more precisely estimated for smaller firms compared to medium and large firms.

The authors conclude that the adjustment to the large-scale refugee shock is rapid, varied for different skill and age groups and affects both labor tasks and capital inputs. Specifically, **highly educated Turkish workers moved to more complex tasks and firms reduced their capital use in refugee-hosting regions implying a substitutability between refugee labor supply and manual tasks and capital; and complementarity between refugee labor supply and abstract tasks.** The authors argue that the reduction in capital is particularly worrying if it damages long-term investments and productivity. They warn that Turkish firms may end up reliant on informal refugee labor and may be left with a suboptimal mix of capital and labor inputs if the refugees return to Syria after the settlement of the crisis.

Vulnerability and Protection of Refugees in Turkey: Findings from the Rollout of the Largest Humanitarian Cash Assistance Program in the World

P. Facundo Cuevas, O. Kaan Inan, Aysha Twose, and Çiğdem Çelik

World Bank and World Food Programme, 2019

<https://openknowledge.worldbank.org/handle/10986/31813>

By December 2018, Turkey hosted nearly 4 million refugees, the majority (3.6 million) from Syria. The Emergency Social Safety Net (ESSN) program, funded by European Union member states, provides monthly cash transfers to help the most vulnerable refugees meet basic needs, and complement Turkey's response to the crisis. ESSN had 1.5 million beneficiaries as of December 2018, making it the largest humanitarian assistance program in the world. Eligibility for ESSN is determined based on household characteristics selected as proxy measures of household poverty and vulnerability. This report **assesses the vulnerability of refugees eligible for ESSN before they start receiving transfers**, using a multidimensional approach covering: poverty, household resources, access to key services, food security, capacity to cope, skills and livelihood sources, and debt burden. The analysis is based on data collected from a representative sample of 8,690 households, interviewed after the ESSN program had determined their eligibility but before households knew their eligibility status or had received any transfers. Key findings include:

- **88 percent of ESSN refugees are poor or 'nearly' poor.** 76 percent of ESSN refugees are poor (per capita monthly expenditure below TL 284) and 24 percent are extreme poor (per capita monthly expenditure below TL 165). 12 percent live with budgets that are above, but within 20 percent of, the poverty line and therefore vulnerable to poverty in the event of a moderate decline in income. Poverty rates vary significantly across regions, somewhat reflective of the spatial variation in regional economic development. 37 percent of monthly expenditure is spent on food, 26 percent on rent, and 9 percent on utilities, leaving just 28 percent for all other needs.
- **Among ESSN refugee households, 54 percent of school-age children are regularly attending school.** In more than a quarter of all ESSN households, none of the school-age children are in school. There is variation in access to education across regions related to a higher proportion of children working in the Aegean, Anatolia, and Istanbul regions and the presence of Temporary Education Centers with lessons taught in Arabic in the Southeast.
- **24 percent of ESSN households have unacceptable food consumption.**
- **90 percent of ESSN households used consumption-based coping strategies**, including relying on less expensive or less preferred foods, reducing the number of meals per week, reducing portion size and reducing adult consumption so that children could eat. Only 3.7 percent of ESSN households did not engage in any livelihood coping strategies. **The incidence of 'costly' Livelihood Coping Strategies (LCS) is also high:** 39 percent of ESSN households use 'emergency' strategies, most commonly sending children to work or relocating the household to a different location; 36 percent of ESSN households use 'crisis' strategies, most commonly reducing investments in health and education; 22 percent of ESSN households use 'stress' strategies, most frequently borrowing money and buying food on credit; and only 3.7 percent of ESSN households did not engage in any livelihood coping strategies.

- **Among ESSN households, there are almost two dependents for every working-age adult, and 40 percent of ESSN households are headed by women.**
- **Only 46 percent of ESSN households have a member who can speak Turkish, and 24 percent have a member who can read Turkish. About 90 percent of ESSN refugees obtain their main source of livelihood from labor** (64 percent from unskilled labor, and 25 percent from skilled labor).
- **Only 20 percent of ESSN households have not accumulated any debt.**

The authors **also assess the performance of ESSN**, and find that:

- **ESSN targeting criteria were effective in identifying a relatively poorer and more vulnerable population.** Poverty and extreme poverty among eligible refugees (76 percent and 24 percent respectively) are significantly higher than among ineligible refugees (55 percent and 14 percent). ESSN eligible refugees are more vulnerable across most, though not all, dimensions.
- **ESSN achieves a high coverage of the poor—but misses a third of the poor (exclusion error) and a quarter of its beneficiaries are non-poor (inclusion error).** The coverage rate (percentage of the poor population assessed eligible) is 66 percent, i.e. an exclusion error of 34 percent of the poor. Among the extreme poor, the coverage rate is 71 percent, and the exclusion error is 29 percent. The inclusion error (percentage of non-poor refugees among all eligible refugees) is 24 percent. However, the authors argue that it is preferable to prioritize coverage/inclusion over accuracy, since non-poor eligible refugees are relatively vulnerable, i.e. a third of non-poor beneficiaries live with a budget that is within 10 percent of the poverty line.
- **ESSN provides meaningful assistance to support beneficiaries' basic needs.** The adequacy ratio (value of transfers relative to pre-assistance refugee budgets) is 96 percent among the extreme poor and 63 percent among all poor.
- **Overall, ESSN does relatively well when compared with unconditional cash transfers programs around the world.**

The authors conclude that it is possible to achieve a relatively positive coverage and targeting performance, and provide meaningful assistance to support beneficiaries' basic needs. Increasing coverage with an untargeted design would reduce the adequacy of the transfer. The authors recommend some form of support for ineligible refugees, many of whom are poor. This could entail support to improve access to economic opportunities, given that ESSN eligibility criteria capture lack of capacity to work, which implies that ineligible refugees have relatively better prospects for income generation with the right support. Finally, the authors **advocate for decreasing ESSN's exclusion error among the extreme poor, or supporting complementary action to reach the extreme poor** through programs such as the Turkish Social Assistance and Solidarity Foundation (SASF) Allowance. Future analysis will focus on the impact of the transfers on household welfare.

Refugees and ‘Native Flight’ from Public to Private Schools

Semih Tumen

IZA Discussion Paper No. 12235, March 2019

<https://www.iza.org/publications/dp/12235/refugees-and-native-flight-from-public-to-private-schools>

Also published in published in *Economics Letters*, Volume 181 (2019), Pages 154-159

<https://doi.org/10.1016/j.econlet.2019.05.030>

This paper exploits the large-scale arrival of Syrian refugees into Turkey after 2012 to **estimate the impact of refugees on public-private school choice of natives in Turkey**. The analysis is based on province-level school enrollment data covering the period between 2010/11 to 2015/16 academic years, and employs a flexible difference-in-difference approach based on province-year variation in refugee intensity and an instrumental variable strategy to address refugees’ location choices (i.e. refugees may be sorting into regions with better economic opportunities and these regions may also be the ones with stronger public schools). The author finds that **Turkish children switch from public to private primary schools in response to increased Syrian-refugee concentration in their province of residence**. A ten percentage-point increase in refugee-to-population ratio generates, on average, 0.12 percentage-point increase in private primary school enrollment. The response is slightly larger among males relative to females. This roughly corresponds to **one native child switching to private education for every 31.6 refugee children enrolled in public schools—weaker than the typical estimates in the literature**. There are several possible reasons for this weaker estimate: Syrian refugees in Turkey generally settle together in segregated neighborhoods and their children go to public schools located around those neighborhoods, so natives have an option to switch to other public schools with much less (or no) refugee students, especially in large cities; cost of private school tuition fees given the relatively fragile labor market conditions in Turkey and high frequency of aggregate shocks; the small number of private schools, mostly located in rich urban neighborhoods; and government efforts to sustain the quality and capacity of public education in response to the refugee influx, e.g. through language support to refugee children, and the deployment of Syrian teachers to regions with high refugee concentrations to act as voluntary advisers.

Opportunities and Challenges of Emerging Technologies for the Refugee System

Roya Pakzad

World Refugee Council Research Paper Series, World Refugee Council Research Paper No. 11, May 2019

<https://www.cigionline.org/publications/opportunities-and-challenges-emerging-technologies-refugee-system>

This paper **explores the potential role of technology in fostering greater accountability in the refugee system**. The paper begins by describing several ways that technological solutions have improved the transparency, accountability and efficiency of refugee crises management.

- Digital platforms (from Skype to online maps) can increasingly aid in the **monitoring and documenting of human rights violations**, and a number of civil society and academic groups have begun to use different methods to scrape, analyze and categorize publicly available social media content to document potential war crimes and human rights violations. Similar techniques are being used in **monitoring conflict zones and enabling early-warning systems** to better detect, analyze and react to potential factors leading to conflict and displacement.
- Early stage technologies are being applied to **streamline and add transparency to bureaucratic processes relating to refugees including identification, financial inclusion and humanitarian service management**. Blockchain technology has begun to demonstrate some promise for addressing the issue of identity verification for refugees, financial inclusion and even “smart contracts” (digital protocols that facilitate the execution of a contract), and has potential for administering humanitarian aid with greater transparency. However, tying refugees’ identities and financial power to biometric data could have irreversible consequences in the event of a data breach and identity theft. A lack of privacy protection measures and attention to informed consent are also significant concerns.
- Novel **machine-learning algorithms are being applied to resettlement programs** in host countries. The model is optimized, based on a refugee’s background and skill set, to match them to a host city in which they have a greater chance of finding employment. Researchers have also proposed **using machine-learning techniques to improve impartiality of asylum-seeking adjudication cases**.

However, new technologies also introduce new concerns surrounding privacy security and equality of refugees, e.g. risk of racial and gender discrimination as a result of training on incomplete data sets and flaws in models and learning algorithms. The paper **sets out several recommendations to minimize the potential downsides and to improve the impact of emerging technologies**, including: (a) quantifiable metrics for sharing information across public and private initiatives; (b) a pledge to ‘do no harm’, the equivalent of a “Hippocratic oath”, for technologists working in the humanitarian field; (c) development of predictive early-warning systems for human rights abuses; and (c) greater accountability among funders and technologists to ensure the sustainability and real-world value of humanitarian apps and other digital platforms.

Digital Developments Harbingers of Humanitarian Change?

Carleen Maitland

World Refugee Council Research Paper Series, World Refugee Council Research Paper No. 15, June 2019

<https://www.cigionline.org/publications/digital-developments-harbingers-humanitarian-change>

Information and communication technologies have arguably improved refugees' lives, and by some measures, improved humanitarian assistance (e.g. aid delivered via mobile money), yet they can potentially cause harm. This paper **discusses three interrelated digital developments with the potential to profoundly change the notion of refugee protection**:

- **The emergence of a 'digital refugee'**, i.e. the digital representation of a bona fide refugee constructed by humanitarian organizations (using demographic, biometric, and psychometric data) and by refugees themselves (using photos, videos, texts).
- **A reconfiguration of aid toward 'digital humanitarian brokerage'**, i.e. the use of digital platforms by humanitarian organizations to broker the provision of goods and services (housing, food, education) to refugees by other actors. The digital humanitarian brokerage trend is most clear in the move to digital cash programming.
- **Refugees' growing use of digital technologies to enable self-sufficiency**, e.g. remote digital work, or the use of refugee community data to support community problem solving.

Efficiency and transparency advantages of digital tools in humanitarian programs obscure attention to their disadvantages and potential harms: data stored on refugees' phones can make them targets for interrogation and torture; easy access to disinformation can increase refugees' vulnerability to fraud; devices can become infected with viruses and spyware, compromising sensitive information or impinging upon privacy; and humanitarian agencies' use of complex information systems can create other vulnerabilities (in particular privacy concerns relating to biometric data, disclosure of information on sexual and gender-based violence etc.). The author **recommends three responses to help amplify benefits and minimize harms** from these new technologies: (a) comprehensive digital protection policies safeguarding all refugee data and digital assets (phones, computers, access), including the data they generate themselves; (b) independent analyses of digital humanitarian brokerage and digital self-sufficiency; and (c) involvement of refugees in making and evaluating policies and programming on the applications of ICT.

Governance of the Global Refugee Regime

Alexander Betts and James Milner

World Refugee Council Research Paper Series, World Refugee Council Research Paper No. 13, May 2019

<https://www.cigonline.org/publications/governance-global-refugee-regime>

The authors **argue that the global refugee regime, distinct from its component organizations, lacks a clearly defined system of governance** due to: diffuse governance arrangements; conflation of governance of the regime with governance of UNHCR; and lack of effective coordination, dialogue and political engagement necessary for international cooperation and the realization of the regime's core objectives of protection and solutions for refugees. Individual states are responsible for implementing the regime's norms within their jurisdictions, with control over the quantity and quality of asylum they grant to refugees on their territory, while outcomes for refugees are increasingly shaped by decisions taken in other fields (e.g. development, humanitarianism, human rights, labor migration, travel, security). Additionally, there are no binding obligations on states to cooperate to ensure the functioning of the regime or to share the burden or responsibility for refugee protection.

In response to these gaps, the authors **propose enhanced governance arrangements for the global refugee regime** that would contribute to enhanced protection and solutions for refugees and more predictability for states and the international system. They identify four functions needed to facilitate collective action—dialogue, facilitation, expertise and oversight—and propose: (a) a forum for dialogue between refugee-hosting and donor states and other stakeholders, including the private sector, NGOs and refugees themselves; (b) the capacity for political facilitation between actors, i.e. to identify principled yet practical bargains that can meet states' interests while advancing refugee protection and solutions; (c) enhanced capacity for analysis and evidence-based planning; and (d) oversight and accountability to ensure compliance with international norms.

Specific recommendations are as follows:

- **New governance mechanisms:** The Global Refugee Forum (GRF) and Support Platform, detailed in the Global Compact on Refugees (GCR), should be supported as new governance mechanisms that, if combined, could provide a mechanism for dialogue, facilitation, expertise, delivery and oversight. Working groups should be authorized to develop responses to specific refugee situations and make proposals that require political and material support. If the GRF proves inadequate, the ten largest host and ten largest donor countries should establish a 'R20' mechanism. New governance mechanisms should be supported by a secretariat that can provide political analysis and research.
- **Ensuring coherence:** A special representative of the UN Secretary-General for displaced persons should be tasked with ensuring sustained engagement and complementarity across the UN system and with regional organizations and other actors, and more predictable efforts to address root causes of displacement and to respond to displacement when it occurs.

- **Strengthening accountability:** Mechanisms are needed to ensure more consistent state compliance, including through authoritative and legitimate monitoring, enforcement and accountability mechanisms to address causes of displacement and provision of protection and solutions.
- **Addressing gaps:** Notwithstanding the potential benefits of the GCR, the reliability of the refugee regime would benefit from additional instruments and mechanisms to ensure that burden and responsibility sharing for refugees is ultimately predictable, equitable and sufficient in both scope and scale.