Determinants of Syrian Refugees' Return

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This Paper

- **Research focus**
  - Examines the conditions under which Syrian refugees decide to return to their country of origin after the **fall of the Assad regime** in Dec 2024
  - Fills a gap in the literature where empirical evidence on actual return behavior remains scarce
- **Data and identification**
  - Leverages a unique **UNHCR administrative database** covering all registered refugees in Jordan
  - Matches individual-level registration data with **border return records** to observe **actual returns** rather than intentions
- **Empirical approach**
  - Analyzes how welfare, cash assistance and integration proxies influence the likelihood of return
  - Compares determinants between *camp* and refugees living among *host-community*

Key Findings

- **Gender & Geography**
  - Men are more likely to return, often leaving ahead of families
  - Most returnees originate from Daraa and Homs, and are likely to return there
- **Refugees living in Camps**
  - The relationship between poverty and return varies over time
- **Refugees living in Host Communities**
  - Household with more children are more likely to return
  - Welfare-return link is U-shaped: poorest and relatively wealthiest return more
  - Losing cash assistance lowers return for the poorest but increases it for better-off groups; temporary transfers can act as extra resources to prepare for return
  - Access to education and formal work slightly reduces return, but the effects are very marginal

Data Sources

- **Main datasets**
  - **(i) UNHCR ProGres** – global refugee registration system; contains individual demographic, biometric, and protection data
  - **(ii) UNHCR Cash Assistance** – household-level data from CashAssist, based on poverty targeting model co-developed with the World Bank
  - **(iii) WFP–UNHCR Skills Mapping (SKM)** – survey on education, skills, employment experience, and aspirations for refugees aged 18–64
- **Data integration and coverage**
  - **ProGres** matched weekly with verified returnee lists from Jordanian authorities using unique IDs (updated to **31 December 2025**)
  - **Focus:** adult Syrian refugees (53.6% of total UNHCR-registered population)
  - **SKM sub-sample:** 230,867 Syrian adults interviewed; merged sample after cleaning: **205,471 adult Syrians**
- **Key advantages**
  - Comprehensive, administrative coverage of the entire registered refugee population
  - Enables analysis of **actual return behavior** and socioeconomic determinants
  - Combined micro-level datasets mitigate selection and reporting bias

Regression Model

Linear Probability Model Specification

$$Returnee_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \cdots + \beta_k X_{ki} + GoO_i + GoA_i$$

where $Returnee_i$ is a binary variable (1 if the refugee has returned to Syria)

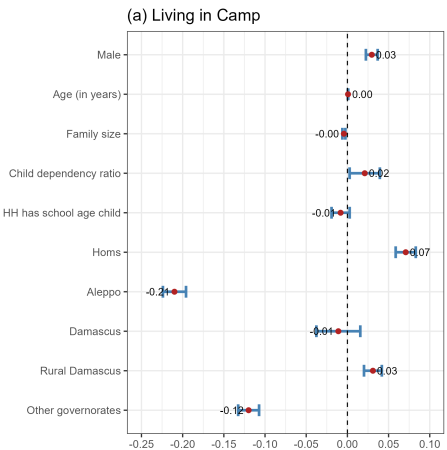
GoO_i is the FE of governorate in country of origin

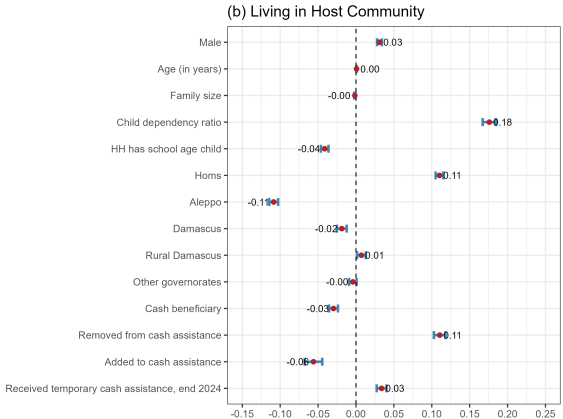
GoA_i is the FE of governorate in country of asylum (non-camp group)

Estimation Strategy

- **Stage 1:** Full sample — ProGres and cash assistance variables
- **Stage 2:** Add poverty proxies (PMT quantiles) and interaction with cash assistance to capture welfare heterogeneity
- **Stage 3:** Incorporate socio-economic variables from SKM dataset — education, employment, and prior labor market experience
- Separate regressions for refugees **in camps** and **in host communities**
  - Reflect distinct decision-making frameworks given differences in work opportunities, rent obligations, and access to assistance

Model I: Baseline Returnee Profile





Notes: These figures plot the estimated coefficients (red dots) and 95% confidence intervals (blue horizontal bars).

Model I: Baseline Returnee Profile

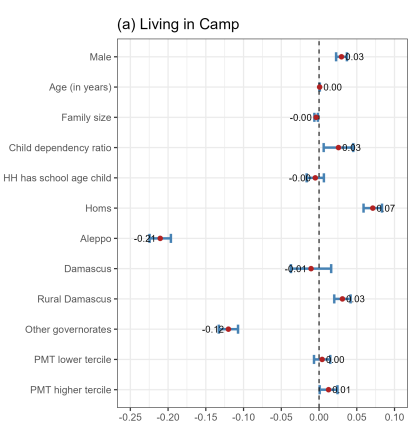
Main Findings

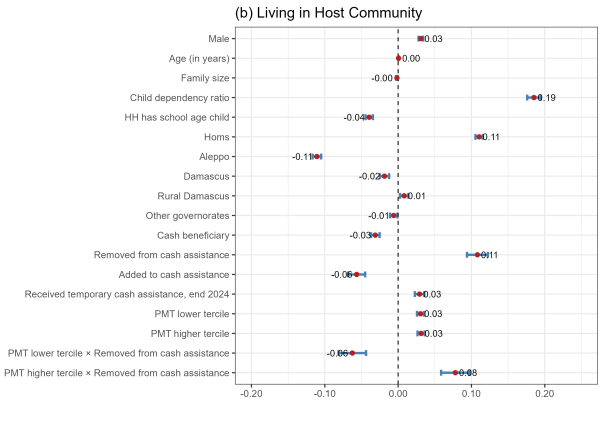
- Analysis covers all refugees in the ProGres database, split by **camp** and **non-camp** groups
- For camps, all refugees receive cash assistance ⇒ cash variables omitted due to collinearity
- Camp and non-camp refugees show **different incentive patterns**:
  - **Child dependency ratio**[1]: positive and strong for non-camp residents, insignificant for camp
  - **HH has school age child**: negative and strong for non-camp residents, insignificant for camp
- **Cash-assistance effects (non-camp only)**
  - If you are a cash beneficiary, return probability decreases slightly by 3 pp
  - If you are removed from the cash list, return probability increases by about 11 pp
  - If you are added to the cash list, return probability decreases by about 9 pp (net effect)
  - If you are put back on the cash list at the end of 2024 (temporary), return probability increases by about 3 pp
- **Geographic heterogeneity is observed**[2]

1 The child dependency ratio is defined as the share of children (individuals aged 0–17) in the household.

2 Note that according to prevalent evidence, over 90 percent of refugees return to governorate of origin. The reference governorate is Daraa.

Model II: Conditional on Welfare & Cash Effect





Notes: These figures plot the estimated coefficients (red dots) and 95% confidence intervals (blue horizontal bars).

Model II: Dynamics effects of the Welfare

Figure: Monthly Dynamic Effects of PMT terciles in Camp Sample

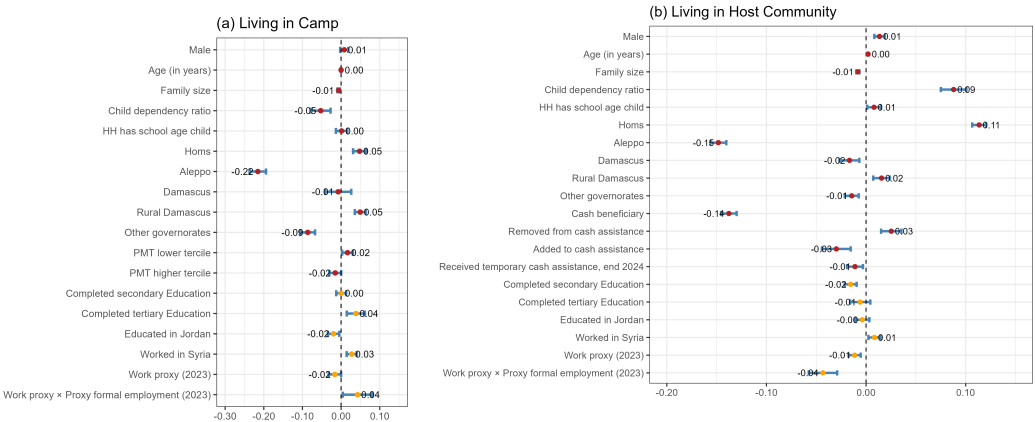
Notes: This figure presents the monthly dynamic effects of PMT categories on return decisions for camp and host community refugees. The coefficients are estimated using LPM 2 specifications on the full camp sample (not merged with SKM). The red line represents the poorest group (PMT lower tercile), while the teal line represents the relatively wealthier group (PMT higher tercile). Shaded areas indicate 95% confidence intervals. The horizontal dashed line at zero indicates no effect. The figure illustrates the temporal variation in the probability of return across PMT categories, highlighting periods where the poorest or relatively wealthier camp refugees were more or less likely to return.

Model II: Conditional on Welfare & Cash Effect

Main Findings

- **Camp results**
  - In the early window of return, relatively "wealthier" households are more likely to return, the relationship then inverses itself
- **Non-camp results:** follow a **U pattern** relative to poverty
  - Both the **poorest** and **relatively wealthiest** refugees are more likely to return ($+3$ and $+3$ pp)
  - The **middle-income group** are the least likely to return
  - Why? perhaps because the relatively wealthiest have the means while the poorest have little holding them back, only the middle-income group is sufficiently invested in the host country
- **Interaction effects**
  - Losing cash assistance makes the **poorest** households even less likely to return — unable to cover relocation costs

Model III: Conditional on Education and Labor Outcomes



Notes: These figures plot the estimated coefficients (red and orange dots for variables in SKM) and 95% confidence intervals (blue horizontal bars).

Model III: Conditional on Education and Labor Outcomes

Main Findings

- **Education effects**
  - In camps, those with tertiary education are more likely to return
  - Outside camps, completing secondary / tertiary education ⇓ return probability (< 2 pp)
  - completed education in Jordan slightly decreases the probability to return
- **Employment effects**
  - Currently employed ⇓ return by 1.6 pp (camp) and 1.1 pp (non-camp), close to insignificant
  - Proxy for formal work: ⇑ return ($+4.3$ pp) in camps but ⇓ (-4.3 pp) outside camps
  - Prior work experience in Syria ⇑ return ($+2.7$ pp camp, $+0.8$ pp non-camp)
- Overall: economic integration seem to reduce likelihood of return, but **magnitude remains small**

Thank you!

Questions and comments are welcome.

Appendix

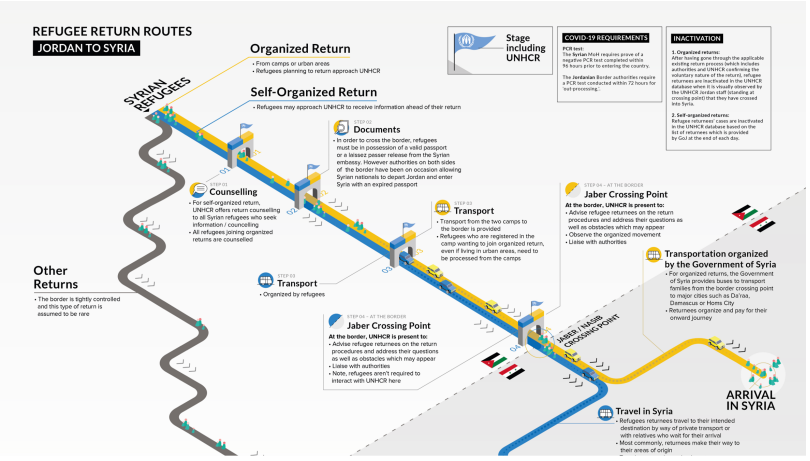


Figure: Return Routes and Repatriation Processes of Syrian Refugees from Jordan to Syria

Appendix

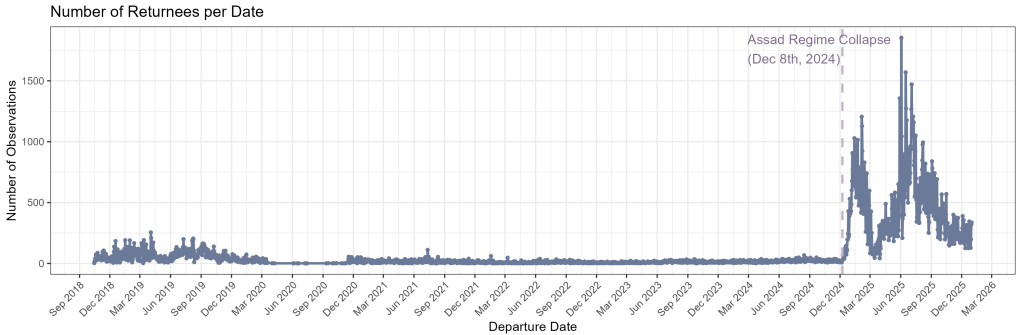


Figure: Time Trend of Refugee Returns

Appendix

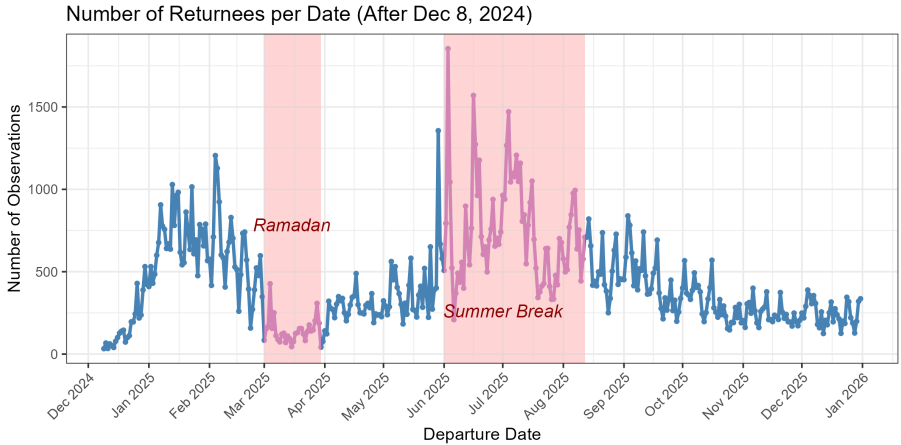


Figure: Time Trend of Refugee Returns (After Dec 2024)

Appendix

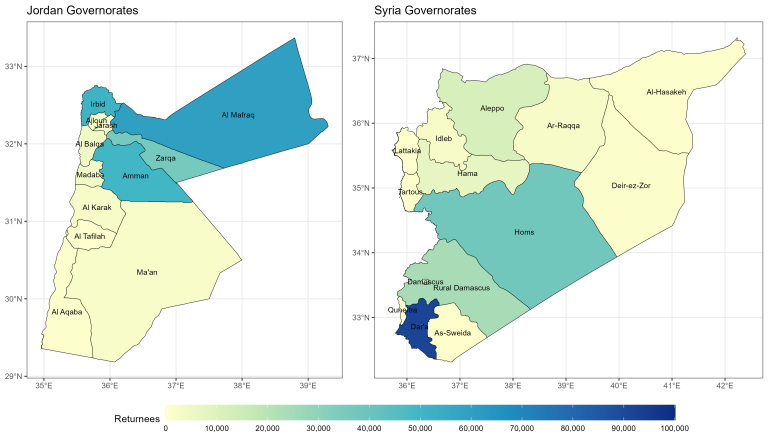


Figure: The Spatial Distribution of Returnees

Appendix

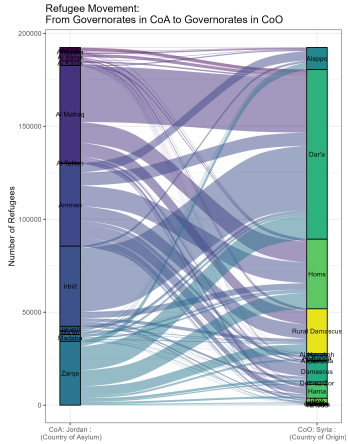


Figure: Sankey Diagram of the Pattern of Refugee Return

Appendix

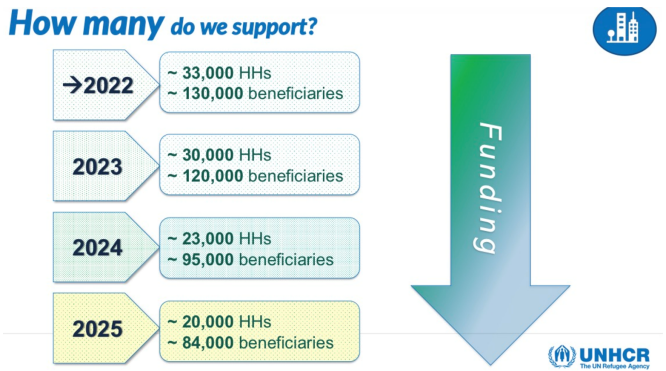


Figure: Evolution of Cash Assistance Coverage among Syrian Refugees in Jordan, 2022–2025

Appendix

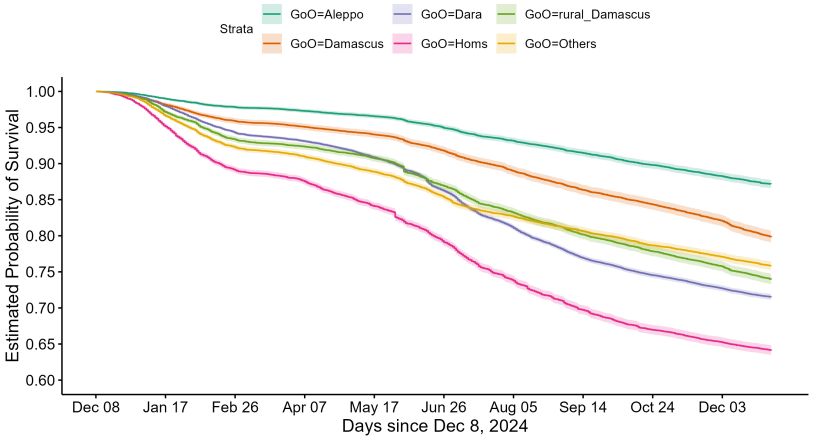


Figure: Survival Analysis