

# Keeping refugee children in school and out of work: Evidence from the world's largest humanitarian cash transfer program

Aysun Aygun, Murat G. Kirdar, Murat Koyuncu, Quentin Stoeffler

March 7, 2022  
CUNY, Queens

# Introduction

- There are currently 79.5 million forcibly displaced individuals globally, among whom 40% are children (UNHCR, 2020).

# Introduction

- There are currently 79.5 million forcibly displaced individuals globally, among whom 40% are children (UNHCR, 2020).
- Turkey hosts the world's largest refugee population, including 3.7 million Syrians, the vast majority of whom do not live in camps.

# Introduction

- There are currently 79.5 million forcibly displaced individuals globally, among whom 40% are children (UNHCR, 2020).
- Turkey hosts the world's largest refugee population, including 3.7 million Syrians, the vast majority of whom do not live in camps.
- We explore the effect of cash transfers on refugee children's education and employment outcomes in the context of the world's largest cash transfer program that targets refugees, the Emergency Social Safety Net program (ESSN).

# Introduction

- There are currently 79.5 million forcibly displaced individuals globally, among whom 40% are children (UNHCR, 2020).
- Turkey hosts the world's largest refugee population, including 3.7 million Syrians, the vast majority of whom do not live in camps.
- We explore the effect of cash transfers on refugee children's education and employment outcomes in the context of the world's largest cash transfer program that targets refugees, the Emergency Social Safety Net program (ESSN).
- Refugee children benefitted from a relatively easy and free access to the Turkish education system. However, the enrollment rate of 5- to 17-year-old Syrian children (including pre-school) was 59 percent in the 2017–2018 school year.

# Introduction

- There are currently 79.5 million forcibly displaced individuals globally, among whom 40% are children (UNHCR, 2020).
- Turkey hosts the world's largest refugee population, including 3.7 million Syrians, the vast majority of whom do not live in camps.
- We explore the effect of cash transfers on refugee children's education and employment outcomes in the context of the world's largest cash transfer program that targets refugees, the Emergency Social Safety Net program (ESSN).
- Refugee children benefitted from a relatively easy and free access to the Turkish education system. However, the enrollment rate of 5- to 17-year-old Syrian children (including pre-school) was 59 percent in the 2017–2018 school year.
- According to the refugee sample of the 2018 Turkish Demographic and Health Survey, 48 percent of 15- to 17-year-old Syrian boys had a paid job (Dayioglu et al., 2021)

# Introduction

- Forced displacement generally constitutes a major disruption in the lives of children.

# Introduction

- Forced displacement generally constitutes a major disruption in the lives of children.
- Displacement causes material losses for their families; hence, they are likely to live in poverty.



# Introduction

- Forced displacement generally constitutes a major disruption in the lives of children.
- Displacement causes material losses for their families; hence, they are likely to live in poverty.
- Psychological trauma caused by forced displacement, adaptation to a new education system, and potentially a language barrier.

# Introduction

- Forced displacement generally constitutes a major disruption in the lives of children.
- Displacement causes material losses for their families; hence, they are likely to live in poverty.
- Psychological trauma caused by forced displacement, adaptation to a new education system, and potentially a language barrier.
- Refugee children tend to drop out of school and take up employment at a young age, thus creating the risk of being trapped in poverty in the future.

# Introduction

- Forced displacement generally constitutes a major disruption in the lives of children.
- Displacement causes material losses for their families; hence, they are likely to live in poverty.
- Psychological trauma caused by forced displacement, adaptation to a new education system, and potentially a language barrier.
- Refugee children tend to drop out of school and take up employment at a young age, thus creating the risk of being trapped in poverty in the future.
- Returns on education are likely to be higher than they are for the general population.

# Introduction

- Forced displacement generally constitutes a major disruption in the lives of children.
- Displacement causes material losses for their families; hence, they are likely to live in poverty.
- Psychological trauma caused by forced displacement, adaptation to a new education system, and potentially a language barrier.
- Refugee children tend to drop out of school and take up employment at a young age, thus creating the risk of being trapped in poverty in the future.
- Returns on education are likely to be higher than they are for the general population.
- Yet we have little knowledge regarding the best ways to support refugee children and their households, especially those who live outside refugee camps.

# Introduction

- The ESN unconditional cash transfer program rolled out in November 2016 in Turkey and had reached 1.8 million refugees as of February 2021.

# Introduction

- The ESN unconditional cash transfer program rolled out in November 2016 in Turkey and had reached 1.8 million refugees as of February 2021.
- For the average Syrian family in Turkey with 6 members, the monthly payment is 720 TL (around USD 105)—which is equal to 55% of the average monthly labor earnings of Syrian men in Turkey (ILO) and 36% of the average monthly consumption value of the refugee households in the micro-level dataset used in this study

# Introduction

- The ESSN unconditional cash transfer program rolled out in November 2016 in Turkey and had reached 1.8 million refugees as of February 2021.
- For the average Syrian family in Turkey with 6 members, the monthly payment is 720 TL (around USD 105)—which is equal to 55% of the average monthly labor earnings of Syrian men in Turkey (ILO) and 36% of the average monthly consumption value of the refugee households in the micro-level dataset used in this study
- To the best of our knowledge, this study provides, along with a few concurrent working papers, the first evidence of the impact of a large-scale cash transfer program on education and child labor of refugee children who live outside camps.

# Introduction

- The ESSN unconditional cash transfer program rolled out in November 2016 in Turkey and had reached 1.8 million refugees as of February 2021.
- For the average Syrian family in Turkey with 6 members, the monthly payment is 720 TL (around USD 105)—which is equal to 55% of the average monthly labor earnings of Syrian men in Turkey (ILO) and 36% of the average monthly consumption value of the refugee households in the micro-level dataset used in this study
- To the best of our knowledge, this study provides, along with a few concurrent working papers, the first evidence of the impact of a large-scale cash transfer program on education and child labor of refugee children who live outside camps.
- We also investigate the mechanisms at play and the heterogeneity of the impact by age group and family background.



# Introduction

- We draw on data from the Comprehensive Vulnerability Monitoring Exercise (CVME), which is conducted by the World Food Program and is representative of the refugee population in Turkey.

# Introduction

- We draw on data from the Comprehensive Vulnerability Monitoring Exercise (CVME), which is conducted by the World Food Program and is representative of the refugee population in Turkey.
- Households with a ratio of dependents to working-age adults of 1.5 or more are eligible for the ESSN program.

# Introduction

- We draw on data from the Comprehensive Vulnerability Monitoring Exercise (CVME), which is conducted by the World Food Program and is representative of the refugee population in Turkey.
- Households with a ratio of dependents to working-age adults of 1.5 or more are eligible for the ESSN program.
- We use a regression discontinuity design (RDD) to compare households just below and above the 1.5 eligibility criterion.

# Introduction

- We draw on data from the Comprehensive Vulnerability Monitoring Exercise (CVME), which is conducted by the World Food Program and is representative of the refugee population in Turkey.
- Households with a ratio of dependents to working-age adults of 1.5 or more are eligible for the ESSN program.
- We use a regression discontinuity design (RDD) to compare households just below and above the 1.5 eligibility criterion.
- Being just above the 1.5 cutoff for eligibility does increase the likelihood of receiving transfers by 38 percentage points.

# Introduction

- We draw on data from the Comprehensive Vulnerability Monitoring Exercise (CVME), which is conducted by the World Food Program and is representative of the refugee population in Turkey.
- Households with a ratio of dependents to working-age adults of 1.5 or more are eligible for the ESSN program.
- We use a regression discontinuity design (RDD) to compare households just below and above the 1.5 eligibility criterion.
- Being just above the 1.5 cutoff for eligibility does increase the likelihood of receiving transfers by 38 percentage points.
- We then use a fuzzy-RDD approach to identify the causal effect of being a beneficiary of the transfers.

# Preview of Findings

- Our results show a large effect of the unconditional cash transfer program on education and child labor among refugee children. The beneficial effects of the ESSN program on children's outcomes are most pronounced among the most vulnerable groups.

# Preview of Findings

- Our results show a large effect of the unconditional cash transfer program on education and child labor among refugee children. The beneficial effects of the ESSN program on children's outcomes are most pronounced among the most vulnerable groups.
- ESSN cash transfers reduce the fraction of children working from 14.0 to 1.6 percent (by 88 percent) and the fraction of children aged 6–17 not in school from 36.2 to 13.7 percent (by 62 percent).

# Preview of Findings

- Our results show a large effect of the unconditional cash transfer program on education and child labor among refugee children. The beneficial effects of the ESSN program on children's outcomes are most pronounced among the most vulnerable groups.
- ESSN cash transfers reduce the fraction of children working from 14.0 to 1.6 percent (by 88 percent) and the fraction of children aged 6–17 not in school from 36.2 to 13.7 percent (by 62 percent).
- Examining the mechanisms at play, we find that ESSN cash transfers become a significant part of a household's income, substantially reduce extreme poverty, and lower the chances that refugee households engage in costly coping strategies.



# Preview of Findings

- Analyzing the reasons for children's not attending school, we find that beneficiary households are more likely to send their children to school because the transfers address the opportunity costs of schooling. We also find suggestive evidence that cash transfers increase schooling by addressing the direct costs of schooling.

# Preview of Findings

- Analyzing the reasons for children's not attending school, we find that beneficiary households are more likely to send their children to school because the transfers address the opportunity costs of schooling. We also find suggestive evidence that cash transfers increase schooling by addressing the direct costs of schooling.
- The effect is stronger on children aged 12 to 17 than the effect on children aged 6 to 11—which is consistent with the opportunity cost of schooling.

# Preview of Findings

- Analyzing the reasons for children's not attending school, we find that beneficiary households are more likely to send their children to school because the transfers address the opportunity costs of schooling. We also find suggestive evidence that cash transfers increase schooling by addressing the direct costs of schooling.
- The effect is stronger on children aged 12 to 17 than the effect on children aged 6 to 11—which is consistent with the opportunity cost of schooling.
- The beneficial effects of the ESSN program on children's outcomes are most pronounced among the poorest households.

## Related Literature

- A growing literature studies the effects of cash transfers to forcibly displaced populations, but few address the effects on children's schooling and work outcomes.

## Related Literature

- A growing literature studies the effects of cash transfers to forcibly displaced populations, but few address the effects on children's schooling and work outcomes.
- Three concurrent papers also examine the effects of large-scale cash transfers on Syrian refugee households.

## Related Literature

- A growing literature studies the effects of cash transfers to forcibly displaced populations, but few address the effects on children's schooling and work outcomes.
- Three concurrent papers also examine the effects of large-scale cash transfers on Syrian refugee households.
- Only Moussa et al. (2021) focus specifically on refugee children. Unlike Moussa et al., however, we include an exploration of the mechanisms at play and the impact heterogeneity.

## Related Literature

- A growing literature studies the effects of cash transfers to forcibly displaced populations, but few address the effects on children's schooling and work outcomes.
- Three concurrent papers also examine the effects of large-scale cash transfers on Syrian refugee households.
- Only Moussa et al. (2021) focus specifically on refugee children. Unlike Moussa et al., however, we include an exploration of the mechanisms at play and the impact heterogeneity.
- Altindag and O'Connell (2020) find that the beneficial effects of the cash transfers on child labor and schooling are only for boys.

## Related Literature

- A growing literature studies the effects of cash transfers to forcibly displaced populations, but few address the effects on children's schooling and work outcomes.
- Three concurrent papers also examine the effects of large-scale cash transfers on Syrian refugee households.
- Only Moussa et al. (2021) focus specifically on refugee children. Unlike Moussa et al., however, we include an exploration of the mechanisms at play and the impact heterogeneity.
- Altindag and O'Connell (2020) find that the beneficial effects of the cash transfers on child labor and schooling are only for boys.
- Ozler et al. (2020) measure the effects of the ESSN program on refugee children's school enrollment, but not employment.

Different data, identification methods, outcomes, and somewhat different results; relative importance of the roles played by opportunity costs and direct costs of schooling in refugee children's school non-enrollment



# Background Information

## ESSN Program

- Implemented since Nov 2016

# Background Information

## ESSN Program

- Implemented since Nov 2016
- Eligibility: one of six demographic criteria

# Background Information

## ESSN Program

- Implemented since Nov 2016
- Eligibility: one of six demographic criteria
  - dependency ratio 1.5 or more

# Background Information

## ESSN Program

- Implemented since Nov 2016
- Eligibility: one of six demographic criteria
  - dependency ratio 1.5 or more
  - 4 children or more

# Background Information

## ESSN Program

- Implemented since Nov 2016
- Eligibility: one of six demographic criteria
  - dependency ratio 1.5 or more
  - 4 children or more
  - single female household

# Background Information

## ESSN Program

- Implemented since Nov 2016
- Eligibility: one of six demographic criteria
  - dependency ratio 1.5 or more
  - 4 children or more
  - single female household
  - elderly only household

# Background Information

## ESSN Program

- Implemented since Nov 2016
- Eligibility: one of six demographic criteria
  - dependency ratio 1.5 or more
  - 4 children or more
  - single female household
  - elderly only household
  - single parent

# Background Information

## ESSN Program

- Implemented since Nov 2016
- Eligibility: one of six demographic criteria
  - dependency ratio 1.5 or more
  - 4 children or more
  - single female household
  - elderly only household
  - single parent
  - one disabled member in household



# Background Information

## ESSN Program

- Implemented since Nov 2016
- Eligibility: one of six demographic criteria
  - dependency ratio 1.5 or more
  - 4 children or more
  - single female household
  - elderly only household
  - single parent
  - one disabled member in household
- 120 TL / month / household member (+ smaller top-ups)

- ESN does not operate in a vacuum, PICTES for example

- ESN does not operate in a vacuum, PICTES for example
  - Language training: 380k Syrian children in 2019

- ESSN does not operate in a vacuum, PICTES for example
  - Language training: 380k Syrian children in 2019
  - Back-up training: 20k Syrian children currently

- ESN does not operate in a vacuum, PICTES for example
  - Language training: 380k Syrian children in 2019
  - Back-up training: 20k Syrian children currently
  - Catch-up training: 9.4k out-of-school Syrian children

- ESN does not operate in a vacuum, PICTES for example
  - Language training: 380k Syrian children in 2019
  - Back-up training: 20k Syrian children currently
  - Catch-up training: 9.4k out-of-school Syrian children
  - Teacher & staff training: 2K for supporting Syrian children in schools

# Background Information

## Other Programs

- ESN does not operate in a vacuum, PICTES for example
  - Language training: 380k Syrian children in 2019
  - Back-up training: 20k Syrian children currently
  - Catch-up training: 9.4k out-of-school Syrian children
  - Teacher & staff training: 2K for supporting Syrian children in schools
- Also, various in-kind supports, CCT program for education

- Comprehensive Vulnerability Monitoring Exercise (CVME) survey data collected by WFP



- Comprehensive Vulnerability Monitoring Exercise (CVME) survey data collected by WFP
- Use CVME3 and CVME4 collected in Mar-Dec 2018

- Comprehensive Vulnerability Monitoring Exercise (CVME) survey data collected by WFP
- Use CVME3 and CVME4 collected in Mar-Dec 2018
- Representative of the refugee population.

- Comprehensive Vulnerability Monitoring Exercise (CVME) survey data collected by WFP
- Use CVME3 and CVME4 collected in Mar-Dec 2018
- Representative of the refugee population.
- Sample of 2,681 households: beneficiary (52%), non-beneficiary applicant, non-applicant

- Comprehensive Vulnerability Monitoring Exercise (CVME) survey data collected by WFP
- Use CVME3 and CVME4 collected in Mar-Dec 2018
- Representative of the refugee population.
- Sample of 2,681 households: beneficiary (52%), non-beneficiary applicant, non-applicant
- Syrian as well as other nationalities

- Comprehensive Vulnerability Monitoring Exercise (CVME) survey data collected by WFP
- Use CVME3 and CVME4 collected in Mar-Dec 2018
- Representative of the refugee population.
- Sample of 2,681 households: beneficiary (52%), non-beneficiary applicant, non-applicant
- Syrian as well as other nationalities
- Information on school enrollment and child labor

- Comprehensive Vulnerability Monitoring Exercise (CVME) survey data collected by WFP
- Use CVME3 and CVME4 collected in Mar-Dec 2018
- Representative of the refugee population.
- Sample of 2,681 households: beneficiary (52%), non-beneficiary applicant, non-applicant
- Syrian as well as other nationalities
- Information on school enrollment and child labor
- Coping strategies; information on well-being

- Main strategy: Regression Discontinuity Design (RDD)

# Identification Method

- Main strategy: Regression Discontinuity Design (RDD)
- Exploit the 1.5 dependency ratio eligibility cut-off



# Identification Method

- Main strategy: Regression Discontinuity Design (RDD)
- Exploit the 1.5 dependency ratio eligibility cut-off
- A peculiar feature of our setting is that the running variable is discrete.

# Identification Method

- Main strategy: Regression Discontinuity Design (RDD)
- Exploit the 1.5 dependency ratio eligibility cut-off
- A peculiar feature of our setting is that the running variable is discrete.
- Lee and Card (JE, 2008) show the conditions for inference in an RDD with a discrete running variable.

# Identification Method

- Main strategy: Regression Discontinuity Design (RDD)
- Exploit the 1.5 dependency ratio eligibility cut-off
- A peculiar feature of our setting is that the running variable is discrete.
- Lee and Card (JE, 2008) show the conditions for inference in an RDD with a discrete running variable.
- In essence, our identification is parametric—although we provide supporting evidence using nonparametric methods in robustness checks.

# Identification Method

- Main strategy: Regression Discontinuity Design (RDD)
- Exploit the 1.5 dependency ratio eligibility cut-off
- A peculiar feature of our setting is that the running variable is discrete.
- Lee and Card (JE, 2008) show the conditions for inference in an RDD with a discrete running variable.
- In essence, our identification is parametric—although we provide supporting evidence using nonparametric methods in robustness checks.
- Follow Pei et al. (JBES, forthcoming), which provides guidance on the selection of the polynomial order.

# Identification Method

## Household Composition in the Sample

# prime adults	# dependents																%
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
0		<b>10</b>	<b>20</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>3</b>									1.6
1	17	37	<b>60</b>	<b>47</b>	<b>48</b>	<b>43</b>	<b>24</b>	<b>7</b>	<b>4</b>		<b>3</b>						10.8
2	79	177	290	<b>353</b>	<b>283</b>	<b>184</b>	<b>87</b>	<b>58</b>	<b>20</b>	<b>5</b>	<b>4</b>		<b>1</b>				57.5
3	22	38	68	70	62	<b>58</b>	<b>34</b>	<b>20</b>	<b>17</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>1</b>			<b>1</b>	14.9
4	8	35	44	36	39	20	<b>20</b>	<b>15</b>	<b>7</b>	<b>1</b>	<b>1</b>			<b>1</b>	<b>1</b>		8.5
5	4	11	13	20	13	15	8	4	<b>1</b>	<b>3</b>							3.4
6	2	3	9	9	6	9	5	6		<b>1</b>						<b>1</b>	1.9
7		2	1	3	5	4	2	2	1	1							0.8
8			1	1	3	1	1	1		1							0.3
9	1				1	1	1					1					0.2
10												1					0.0

Notes: Prime adults include individuals aged 18 to 59 who are not disabled. The dependents are the rest of the household members. The cells are given in bold when the dependency ratio is 1.5 or higher.

# Checks of Identification Assumption

- Continuity of the score density around the cutoff

# Checks of Identification Assumption

- Continuity of the score density around the cutoff
- Absence of treatment effects on pretreatment covariates

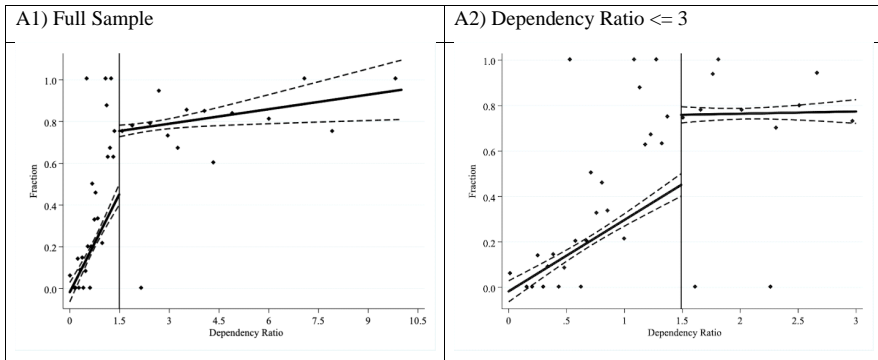
# Checks of Identification Assumption

- Continuity of the score density around the cutoff
- Absence of treatment effects on pretreatment covariates
- Absence of treatment effects at artificial cutoff values



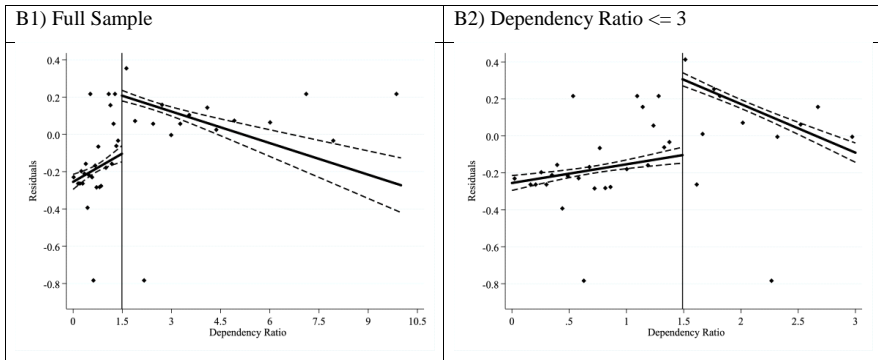
# Identification Method

## The Effect of Dependency-Ratio Criterion on Beneficiary Status



# Identification Method

Controlling for Eligibility Status based on the Five Criteria other than Dependency Ratio



# Estimation

- Sharp RDD for reduced form effect

# Estimation

- Sharp RDD for reduced form effect
- Fuzzy RDD to measure the magnitude of the effect of the policy on beneficiaries, which is essentially 2SLS (Hahn et al., 2001).

# Estimation

- Sharp RDD for reduced form effect
- Fuzzy RDD to measure the magnitude of the effect of the policy on beneficiaries, which is essentially 2SLS (Hahn et al., 2001).
- In the parametric approach, we start with the full data and gradually zoom in around the cutoff by narrowing the bandwidth to assess the robustness of our findings.

# Estimation

- Sharp RDD for reduced form effect
- Fuzzy RDD to measure the magnitude of the effect of the policy on beneficiaries, which is essentially 2SLS (Hahn et al., 2001).
- In the parametric approach, we start with the full data and gradually zoom in around the cutoff by narrowing the bandwidth to assess the robustness of our findings.
- Use linear polynomials but assess the robustness of our findings using second-order polynomials.

# Estimation

- Sharp RDD for reduced form effect
- Fuzzy RDD to measure the magnitude of the effect of the policy on beneficiaries, which is essentially 2SLS (Hahn et al., 2001).
- In the parametric approach, we start with the full data and gradually zoom in around the cutoff by narrowing the bandwidth to assess the robustness of our findings.
- Use linear polynomials but assess the robustness of our findings using second-order polynomials.
- Use alternative definitions of outcome variables: number, share, and a dummy variable for children working and children not in school

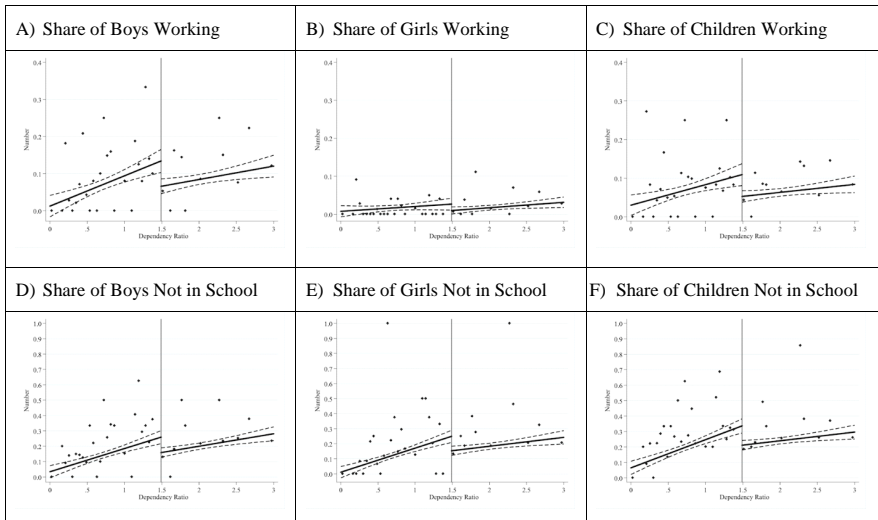
# Estimation

- Sharp RDD for reduced form effect
- Fuzzy RDD to measure the magnitude of the effect of the policy on beneficiaries, which is essentially 2SLS (Hahn et al., 2001).
- In the parametric approach, we start with the full data and gradually zoom in around the cutoff by narrowing the bandwidth to assess the robustness of our findings.
- Use linear polynomials but assess the robustness of our findings using second-order polynomials.
- Use alternative definitions of outcome variables: number, share, and a dummy variable for children working and children not in school
- The control variables,  $X$ , include a survey dummy, a dummy variable for the ESSN eligibility status via any one of the five criteria other than the dependency ratio, and dummy variables for different values of the number of children, a set of variables for household head characteristics and household composition.



# Results

## The Effect of Dependency-Ratio Criterion on Child Labor and Schooling Outcomes



# Estimation Results

The Effect of Dependency-Ratio Criterion on Beneficiary Status and Shares of Children Working and not in School by Gender

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Beneficiary	Share of boys working	Share of girls working	Share of children working	Share of boys not in school	Share of girls not in school	Share of children not in school	No obs.	No. cluster
<i>B) Full Controls</i>										
Full Data		0.318*** [0.073]	-0.057*** [0.009]	-0.010* [0.005]	-0.046*** [0.011]	-0.071*** [0.019]	-0.050*** [0.017]	-0.082*** [0.020]	2,681	56
0 <= DR <= 4.5		0.346*** [0.073]	-0.055*** [0.009]	-0.011** [0.005]	-0.047*** [0.011]	-0.075*** [0.018]	-0.056*** [0.017]	-0.088*** [0.020]	2,589	51
0 <= DR <= 3.5		0.376*** [0.066]	-0.058*** [0.008]	-0.011** [0.005]	-0.048*** [0.010]	-0.075*** [0.018]	-0.059*** [0.015]	-0.090*** [0.019]	2,510	48
0 <= DR <= 3.0		0.389*** [0.064]	-0.057*** [0.009]	-0.012*** [0.005]	-0.048*** [0.011]	-0.070*** [0.019]	-0.057*** [0.016]	-0.087*** [0.021]	2,448	45
0.5 <= DR <= 2.5		0.371*** [0.074]	-0.043*** [0.014]	-0.007 [0.006]	-0.039*** [0.013]	-0.070** [0.027]	-0.048** [0.022]	-0.078*** [0.023]	2,036	32

# Estimation Results (2SLS)

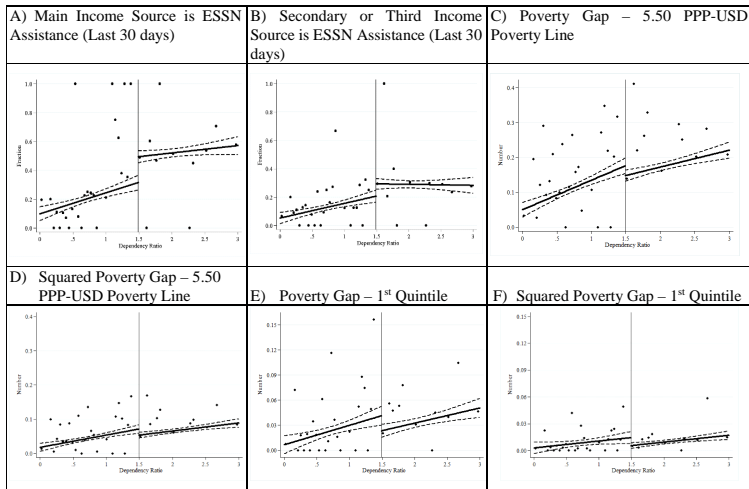
The Effect of Beneficiary Status on the Share of Children Working and the Share of Children not in School by Gender

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Share of boys working	Share of girls working	Share of children working	Share of boys not in school	Share of girls not in school	Share of children not in school	No obs.	No. cluster
Full Data		-0.181*** [0.042]	-0.031** [0.014]	-0.146*** [0.024]	-0.223*** [0.056]	-0.158*** [0.054]	-0.258*** [0.053]	2,681	56
0 <= DR <= 4.5		-0.159*** [0.032]	-0.033*** [0.012]	-0.135*** [0.020]	-0.217*** [0.054]	-0.163*** [0.049]	-0.255*** [0.052]	2,589	51
0 <= DR <= 3.5		-0.155*** [0.028]	-0.029*** [0.010]	-0.129*** [0.018]	-0.199*** [0.050]	-0.157*** [0.043]	-0.239*** [0.048]	2,510	48
0 <= DR <= 3.0		-0.146*** [0.024]	-0.031*** [0.010]	-0.123*** [0.016]	-0.181*** [0.046]	-0.146*** [0.041]	-0.224*** [0.047]	2,448	45
0.5 <= DR <= 2.5		-0.116*** [0.032]	-0.018 [0.015]	-0.103*** [0.019]	-0.187** [0.074]	-0.130** [0.061]	-0.208*** [0.063]	2,036	32

- Receiving ESSN transfers reduces the fraction of boys not in school from 28.4 percent to 10.4 percent (by 64 percent) and lowers the fraction of girls not in school from 24.9 percent to 10.3 percent (by 59 percent). It lowers the share of boys working from 17.0 percent to 2.4 percent (by 86 percent) and the share of girls working from 3.3 percent to 0.2 percent (by 95 percent).

# Channels - Income, Poverty, Housing, Assets

The Effect of Dependency-Ratio Criterion on Income, Poverty, Housing and Assets



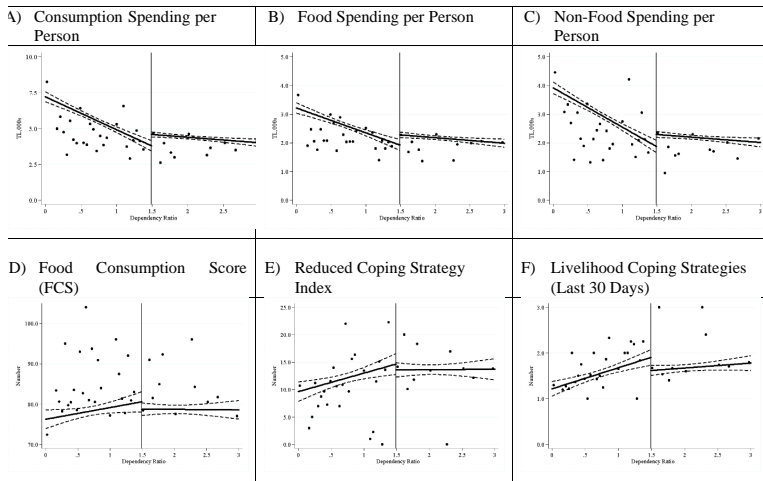
# Estimation Results (2SLS)

The Effect of Beneficiary Status on Income, Poverty, and Asset and Housing Indices

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Main Income Source is WFP/TRC Assistance	Secondary or Third Income Source is WFP/TRC Assistance	Poverty Gap 5.50 PPP-USD Poverty Line	Squared Poverty Gap 5.50 PPP USD Poverty Line	Poverty Gap - 1st Quintile Poverty Line	Poverty Gap - 1st Quintile Poverty Line	Housing index	Total Number of Assets	No obs.
Full Data	0.529*** [0.065]	0.319*** [0.039]	-0.003 [0.045]	-0.023 [0.024]	-0.040* [0.021]	-0.022*** [0.006]	-0.046 [0.198]	-0.641 [0.428]	2,681
0 <= DR <= 4.5	0.498*** [0.067]	0.334*** [0.042]	0.009 [0.040]	-0.016 [0.020]	-0.034** [0.017]	-0.021*** [0.004]	0.032 [0.160]	-0.554 [0.408]	2,589
0 <= DR <= 3.5	0.517*** [0.057]	0.304*** [0.043]	-0.007 [0.040]	-0.022 [0.020]	-0.036** [0.016]	-0.021*** [0.004]	0.086 [0.134]	-0.468 [0.402]	2,510
0 <= DR <= 3.0	0.522*** [0.057]	0.304*** [0.045]	-0.007 [0.038]	-0.020 [0.019]	-0.033** [0.015]	-0.021*** [0.004]	0.123 [0.116]	-0.438 [0.388]	2,448
0.5 <= DR <= 2.5	0.498*** [0.075]	0.322*** [0.061]	-0.001 [0.059]	-0.018 [0.030]	-0.040 [0.025]	-0.019*** [0.006]	0.125 [0.159]	0.198 [0.547]	2,036

# Channels - Consumption, Coping Strategies

The Effect of Dependency-Ratio Criterion on Consumption, Coping Mechanisms



# Estimation Results (2SLS)

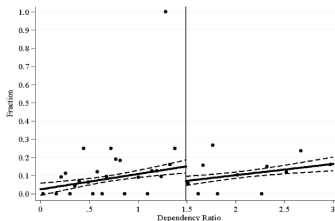
The Effect of Beneficiary Status on Consumption, Coping Mechanisms, and Child Health

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Consumption Spending per Person	Food Spending per Person	Non-Food Spending per Person	Food Consumption Score (FCS)	Reduced Coping Strategy Index	Livelihood Coping Strategies	# Sick Children (Last 30 Days)	# Sick Children For Whom Treatment Sought	No obs.
Full Data		0.958 [0.717]	0.337 [0.292]	0.600 [0.404]	-0.413 [3.480]	-5.314** [2.400]	-0.717*** [0.278]	0.014 [0.231]	0.080 [0.253]	2,681
0 <= DR <= 4.5		0.703 [0.651]	0.222 [0.262]	0.479 [0.376]	-0.493 [3.141]	-5.674** [2.658]	-0.771*** [0.297]	0.033 [0.218]	0.030 [0.229]	2,589
0 <= DR <= 3.5		0.816 [0.604]	0.335 [0.233]	0.446 [0.351]	0.430 [2.563]	-4.677** [2.195]	-0.730*** [0.272]	0.041 [0.205]	0.053 [0.220]	2,510
0 <= DR <= 3.0		0.832 [0.573]	0.349 [0.221]	0.448 [0.335]	0.076 [2.419]	-3.710** [1.653]	-0.656*** [0.229]	0.033 [0.189]	0.030 [0.204]	2,448
0.5 <= DR <= 2.5		0.323 [0.473]	0.340 [0.230]	-0.027 [0.263]	4.330* [2.243]	-5.445** [2.285]	-0.967*** [0.290]	0.159 [0.272]	0.150 [0.288]	2,036

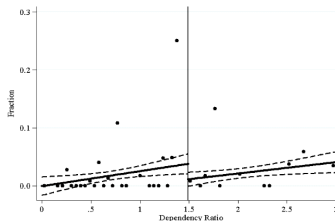


# Channels - Reasons for Children not Attending School

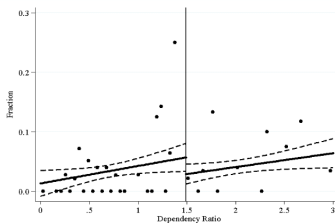
A) Children Need to Work



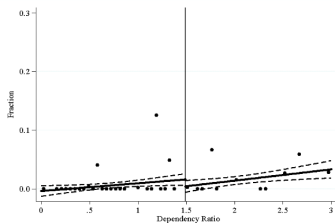
B) Children Need to Stay Home and Assist Family



C) Family Cannot Afford to Pay School Expenses



D) Children Sick/Unwell



# Estimation Results (2SLS)

The Effect of Beneficiary Status on not Attending School by Reason

(1)	(2)	(3)	(4)	(5)	(6)
	Children need to work	Children need to assist family	Family cannot afford	Children sick	No obs.
Full Data	-0.167*** [0.037]	-0.065** [0.031]	-0.058 [0.040]	-0.027 [0.033]	2,681
0 <= DR <= 4.5	-0.164*** [0.034]	-0.073*** [0.028]	-0.054 [0.038]	-0.017 [0.028]	2,589
0 <= DR <= 3.5	-0.165*** [0.036]	-0.063*** [0.023]	-0.062* [0.035]	-0.020 [0.027]	2,510
0 <= DR <= 3.0	-0.145*** [0.025]	-0.058*** [0.021]	-0.056 [0.035]	-0.027 [0.027]	2,448
0.5 <= DR <= 2.5	-0.079** [0.034]	-0.060** [0.026]	-0.037 [0.050]	-0.034 [0.038]	2,036

# Heterogeneity in Effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Share of boys working	Share of girls working	Share of children working	Share of boys not in school	Share of girls not in school	Share of children not in school
<i>A) Age of Children</i>							
6-11 year old	--	--	--	-0.116***	-0.053	-0.127**	
	--	--	--	[0.035]	[0.040]	[0.051]	
12-17 year old	--	--	--	-0.125*	-0.159***	-0.206***	
	--	--	--	[0.069]	[0.052]	[0.051]	
<i>B) Education of Household Head</i>							
Illiterate or Literate with no degree	-0.259***	-0.071***	-0.224***	-0.226**	-0.250***	-0.310***	
	[0.061]	[0.024]	[0.038]	[0.093]	[0.062]	[0.092]	
Primary/Middle/High/Technical	-0.113**	-0.022	-0.085***	-0.187**	-0.099*	-0.183***	
	[0.057]	[0.016]	[0.024]	[0.081]	[0.056]	[0.058]	
University	-0.026	0.007	-0.012	0.064	-0.020	0.020	
	[0.071]	[0.021]	[0.060]	[0.146]	[0.131]	[0.184]	
<i>C) Per-capita Consumption Quintile</i>							
Quintile=1	-0.428*	-0.085	-0.382***	-0.445*	-0.437***	-0.682***	
	[0.256]	[0.104]	[0.077]	[0.265]	[0.140]	[0.234]	
Quintile=2	-0.050	0.028	0.068	-0.323***	-0.451*	-0.521**	
	[0.141]	[0.023]	[0.138]	[0.089]	[0.264]	[0.213]	
Quintile=3	-0.141*	-0.053	-0.161*	-0.187*	-0.135	-0.146	
	[0.085]	[0.048]	[0.083]	[0.108]	[0.089]	[0.116]	
Quintile=4	-0.177**	-0.032	-0.109**	-0.159	-0.009	-0.169	
	[0.076]	[0.082]	[0.044]	[0.128]	[0.076]	[0.147]	
Quintile=5	-0.018	-0.001	-0.045	0.016	0.032	0.023	
	[0.063]	[0.020]	[0.054]	[0.071]	[0.037]	[0.085]	

# Heterogeneity in Effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Share of boys working	Share of girls working	Share of children working	Share of boys not in school	Share of girls not in school	Share of children not in school
<i>D) Time of Arrival in Turkey</i>							
First arrival < 1 year		0.124 [0.171]	0.003 [0.029]	0.194 [0.165]	0.063 [0.406]	0.065 [0.234]	0.367 [0.374]
First arrival = 1 to 3 years		-0.155*** [0.039]	0.039* [0.024]	-0.067** [0.029]	-0.225*** [0.076]	-0.030 [0.071]	-0.157** [0.067]
First arrival > 3 years		-0.166*** [0.029]	-0.061*** [0.015]	-0.178*** [0.024]	-0.202*** [0.063]	-0.209*** [0.072]	-0.301*** [0.043]
<i>E) Nationality</i>							
Syrian		-0.173*** [0.037]	-0.045*** [0.015]	-0.148*** [0.027]	-0.221*** [0.049]	-0.204*** [0.055]	-0.277*** [0.054]
Other Nationality		-0.078*** [0.026]	0.013 [0.011]	-0.051* [0.028]	-0.081 [0.061]	0.016 [0.062]	-0.045 [0.076]
<i>F) Refugee Intensity</i>							
High		-0.176*** [0.048]	-0.023 [0.050]	-0.121** [0.050]	-0.195*** [0.053]	-0.147** [0.072]	-0.259*** [0.068]
Low		-0.129*** [0.031]	-0.031* [0.019]	-0.114*** [0.018]	-0.164*** [0.050]	-0.135*** [0.043]	-0.203*** [0.052]

- Alternative specifications: gradually smaller sets of control variables

- Alternative specifications: gradually smaller sets of control variables
- Alternative ways of calculating standard errors (Kolesar and Rothe, 2018)
  - wild-cluster bootstrap for few clusters, EHW standard errors, multiple hypothesis test (Romano and Wolf)

- Alternative specifications: gradually smaller sets of control variables
- Alternative ways of calculating standard errors (Kolesar and Rothe, 2018)
  - wild-cluster bootstrap for few clusters, EHW standard errors, multiple hypothesis test (Romano and Wolf)
- Restrictions on household structure

- Alternative specifications: gradually smaller sets of control variables
- Alternative ways of calculating standard errors (Kolesar and Rothe, 2018)
  - wild-cluster bootstrap for few clusters, EHW standard errors, multiple hypothesis test (Romano and Wolf)
- Restrictions on household structure
- Donut-hole RDD to rule out manipulation around the cutoff



- Alternative specifications: gradually smaller sets of control variables
- Alternative ways of calculating standard errors (Kolesar and Rothe, 2018)
  - wild-cluster bootstrap for few clusters, EHW standard errors, multiple hypothesis test (Romano and Wolf)
- Restrictions on household structure
- Donut-hole RDD to rule out manipulation around the cutoff
- Local polynomial approach (IK and CCFT optimal bandwidths)

- Alternative Identification Strategy: Propensity score matching (PSM)

# Further Analysis

- Alternative Identification Strategy: Propensity score matching (PSM)
- Alternative Data Set: PAB/PDM (Pre-Assistance Baseline and Post-Distribution Monitoring) surveys conducted by the WFP with support from TRC and the World Bank.

# Conclusion

- This study shows that a multi-year program that provides modest, regular cash transfers produces a tremendous increase in the schooling attainment of refugee children and a decline in their employment, made possible because households have overcome their financial constraints.

# Conclusion

- This study shows that a multi-year program that provides modest, regular cash transfers produces a tremendous increase in the schooling attainment of refugee children and a decline in their employment, made possible because households have overcome their financial constraints.
- The program helps children in the poorest families the most—a finding that is consistent with the “luxury axiom” of Basu and Van (1998), which states that families who reach a certain level of income will choose not to put their children to work.

# Conclusion

- This study shows that a multi-year program that provides modest, regular cash transfers produces a tremendous increase in the schooling attainment of refugee children and a decline in their employment, made possible because households have overcome their financial constraints.
- The program helps children in the poorest families the most—a finding that is consistent with the “luxury axiom” of Basu and Van (1998), which states that families who reach a certain level of income will choose not to put their children to work.
- Providing cash alone, without conditions, generates large, positive impacts on child labor and schooling outcomes.

# Conclusion

- The socioeconomic conditions of Syrian refugees in Turkey—characterized by poverty, a high incidence of child labor, and low levels of schooling compared to the local population—are similar to those of other refugee populations in low- and middle-income host countries around the world.

# Conclusion

- The socioeconomic conditions of Syrian refugees in Turkey—characterized by poverty, a high incidence of child labor, and low levels of schooling compared to the local population—are similar to those of other refugee populations in low- and middle-income host countries around the world.
- In the scope of the program that we studied in the Turkish setting, two distinct features have been critical: (1) the existing schooling infrastructure's ability to absorb refugee children and its openness to refugees and (2) the existence of complementary policies that supported the integration of Syrian refugees in the schooling system. Our findings can therefore be generalized to contexts where school and administrative capacities are high enough to absorb and educate refugee children living outside camps.



# Conclusion

- The socioeconomic conditions of Syrian refugees in Turkey—characterized by poverty, a high incidence of child labor, and low levels of schooling compared to the local population—are similar to those of other refugee populations in low- and middle-income host countries around the world.
- In the scope of the program that we studied in the Turkish setting, two distinct features have been critical: (1) the existing schooling infrastructure's ability to absorb refugee children and its openness to refugees and (2) the existence of complementary policies that supported the integration of Syrian refugees in the schooling system. Our findings can therefore be generalized to contexts where school and administrative capacities are high enough to absorb and educate refugee children living outside camps.
- Our findings can therefore be generalized to contexts where school and administrative capacities are high enough to absorb and educate refugee children living outside camps.