

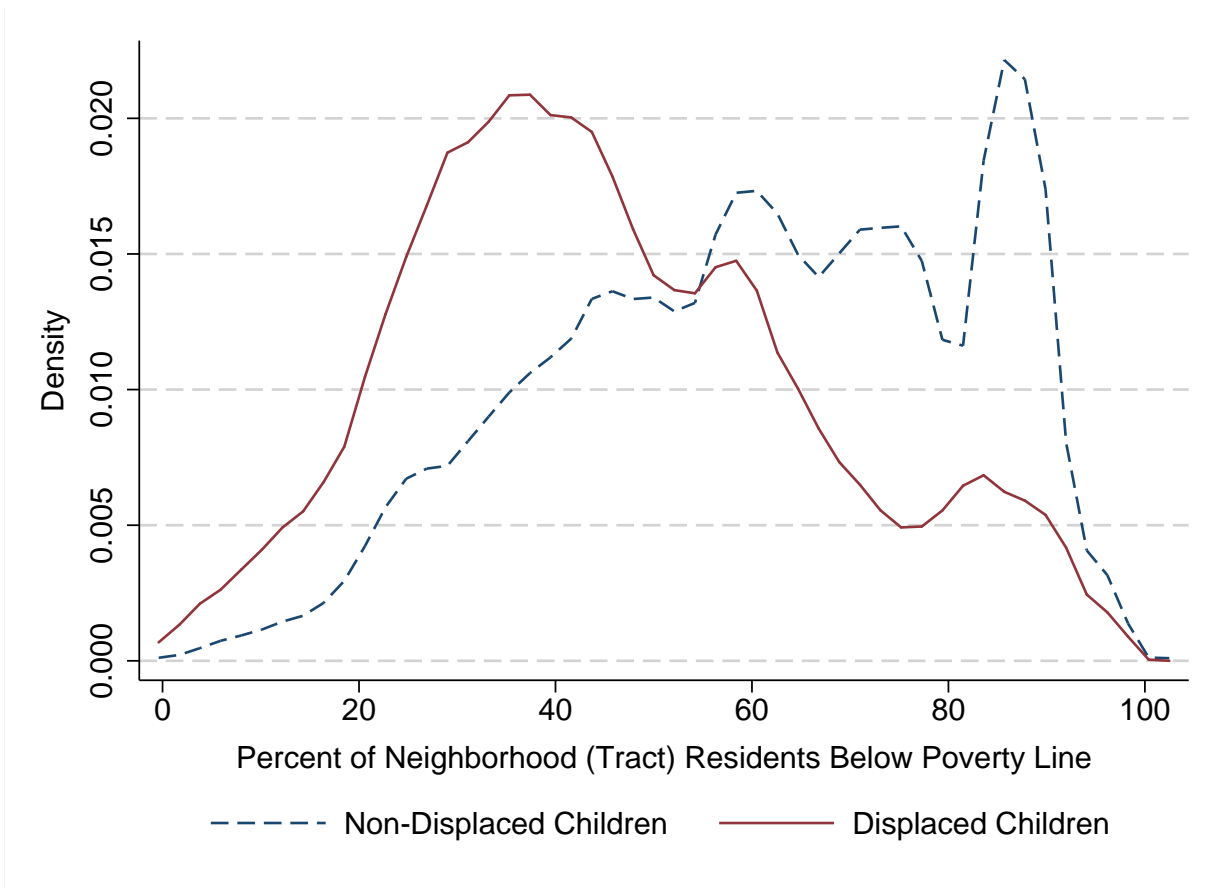
Online Appendix

Moved to Vote: The Long-Run Effects of Neighborhoods on Political Participation

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A Appendix Figures and Tables

Figure A1: Density of Neighborhood Poverty After Demolition



Notes: The figure shows statistics for the duration-weighted average poverty rate for each household in the sample ($N = 3,002$). We compute the average over all post-demolition locations (up to 2009) for the household regardless of whether a child is still present. Neighborhood poverty is based on the 1990 Decennial Census. Location is measured using address data from IDHS social assistance files.

Figure A2: Impacts of Demolition and Relocation on Voting, Employment and Violent Arrests by Subgroup



Notes: Rows present box and whisker plots for effects estimated separately for subgroups defined by baseline characteristics. The line at the center of each box is a point estimate for the estimated impact of demolition and relocation. The whiskers display the lower and upper ends of the 95-percent confidence interval. The left and right ends of the boxes display the points that are one standard error above and below the point estimate.

Table A1: Comparison of Displaced and Non-displaced Adults and Children at Baseline (Prior to Demolition)

	Children			Adults (Parents)		
	(1)	(2)	(3)	(4)	(5)	(6)
	Control Mean	Diff.: Displaced-Non-displaced, Within Est.	N	Control Mean	Diff.: Displaced-Non-displaced, Within Est.	N
Demographics						
Age	10.650	-0.104 (0.140)	5,933	28.898	0.706** (0.284)	4,290
Male	0.498	0.001 (0.013)	5,933	0.128	0.000 (0.010)	4,286
Arrests (Age > 13)						
Violent	0.014	0.003 (0.007)	2,069	0.184	-0.014 (0.032)	4,178
Property	0.011	0.008 (0.009)	2,069	0.158	0.014 (0.020)	4,178
Drug	0.026	-0.005 (0.013)	2,069	0.166	0.031 (0.023)	4,178
Other	0.021	0.004 (0.008)	2,069	0.228	-0.014 (0.028)	4,178
Schooling[†]						
Enrolled CPS	0.948	0.003 (0.014)	5,250			
Reading Score	-0.443	0.024 (0.074)	2,519			
Math Score	-0.449	0.048 (0.061)	2,502			
Employment[‡]						
Employed				0.172	0.006 (0.016)	4,265
Earnings				1,501.820	-68.514 (197.028)	4,265

Notes: This table analyzes baseline characteristics for displaced (treated) and non-displaced (control) individuals. The control mean statistics in Columns 1 and 4 refer to averages for non-displaced children. The mean difference between displaced and non-displaced children is reported in Columns 2 and 5. This difference is computed using a regression model where the baseline outcome (each row) is the dependent variable for individual i . The independent variables in the regression include an indicator for treatment (displaced) status and a set of project fixed effects. For the analysis of arrest and labor market outcomes, we exclude outliers (less than one percent). [†] Administrative data on employment begins in the first quarter of 1995. For individuals who experience a demolition in 1995, we use this quarter of earnings (scaled to an annual figure) to measure earnings prior to displacement because this quarter precedes demolition. [‡] Education outcomes are only available for the main sample in Chyn (2018) which examines children age 7-18 at baseline. See Section 2 and Appendix B for further details. Statistical significance is denoted by: * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$.

Table A2: Impacts of Demolition and Relocation on Neighborhood Characteristics, Three Years Post Displacement

	(1)	(2)	(3)
	Control Mean	Diff.: Displaced- Non-displaced, Within Est.	N
Has Address	0.789	0.011 [0.019]	3,002
<i>Only HHs with Address</i>			
Pct Black	95.182	-2.446** [1.085]	2,297
Pct Below Poverty	64.093	-14.804*** [2.615]	2,297
Violent Crime Rate	69.327	-25.033*** [5.374]	2,253
Property Crime Rate	103.331	-24.235** [10.005]	2,253

Notes: The table reports analysis of location and neighborhood characteristics. The unit of analysis is a household with at least one child. Neighborhood poverty is based on the 1990 Decennial Census. Location is measured using address data from IDHS social assistance files. The control mean statistics in Columns 1 refers to averages for non-displaced households. Using the model from Equation 1, the mean difference between displaced and non-displaced households three years after building demolition is reported in Columns 2 and 4. Robust standard errors are clustered at the public housing building level. Statistical significance is denoted by: * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$.

Table A3: Impacts of Demolition and Relocation on Measures of Attrition

	(1)	(2)	(3)
Post Demo. Year	Control Mean	Diff.: Displaced- Non-displaced, Within Est.	N
1	0.011	-0.001 (0.004)	5,933
2	0.020	0.002 (0.007)	5,933
3	0.031	-0.003 (0.008)	5,933
4	0.038	0.005 (0.009)	5,933
5	0.044	0.010 (0.011)	5,933
6	0.054	0.011 (0.011)	5,933
7	0.067	0.001 (0.013)	5,933
8	0.079	0.002 (0.015)	5,933
9	0.093	-0.003 (0.017)	5,933
10	0.112	-0.008 (0.019)	5,933
11	0.131	-0.004 (0.017)	5,933
12	0.148	0.001 (0.024)	4,527
13	0.185	0.011 (0.030)	4,527
14	0.228	0.002 (0.028)	3,298

Notes: This table presents tests for differential attrition based on the administrative data for children. We follow [Grogger \(2013\)](#) and construct a measure of attrition based on terminal runs of zeros for a given outcome in a panel of observations for each child. We do this for In each time period t after demolition, we construct a measure of terminal zeros for employment, social assistance receipt (foodstamps, TANF or Medicaid), arrests and imprisonment. We aggregate across these outcomes to create a single measure of whether an individual in year t has a terminal string of zeros (up to 2009). For example, the first entry of Column 1 shows that 1.1 percent of the non-displaced children began a terminal run of zeros for all outcomes in the first year after demolition (up to 2009). Column 2 tests whether displaced and non-displaced youth have detectably different rates of attrition using Equation 1. Note that the sample size changes in post demolition years 12, 13 and 14 because some children are displaced in 1998 so they only have 11 years of post-demolition data.

Table A4: Spillover Test Results

	(1)	(2)	(3)	(4)
	Control Mean	Diff.: Displaced-Far, Within Est.	Diff.: Near-Far, Within Est.	N
Voting:				
Ever Voted, General	0.292	0.034* (0.018)	0.007 (0.015)	5,933
Ever Voted, Primary	0.148	0.014 (0.014)	-0.006 (0.012)	5,933
Voted General, 2016	0.173	0.029* (0.016)	0.012 (0.015)	5,933
Voted General, 2012	0.180	0.031* (0.017)	0.004 (0.016)	5,933
Voted General, 2008	0.171	0.026 (0.017)	0.006 (0.014)	5,933
Voted General, 2004	0.135	0.037* (0.019)	0.012 (0.016)	3,364
Share of Pres. Elections Voted	0.161	0.031** (0.014)	0.008 (0.012)	5,933
Registration:				
Registered	0.392	0.029** (0.014)	0.017 (0.014)	5,933
Registered, Non-partisan	0.242	0.015 (0.016)	0.018 (0.016)	5,933
Registered, Republican	0.005	-0.001 (0.002)	0.000 (0.002)	5,933
Registered, Democrat	0.146	0.015 (0.013)	-0.000 (0.011)	5,933

Notes: This table presents tests of spillovers using Equation C2 from Section C. The independent variables in the regression model include an indicator for treatment (displaced) status, an indicator for living in a public housing building that borders (is adjacent to) a demolition targeted building, a set of project fixed effects, and controls for sex and race. The omitted group in the regression is the set of children living in stable buildings located in the “far” buildings that were not adjacent to demolished buildings. The control mean statistics in Column 1 refer to the averages for non-displaced individuals living in the group of far buildings. Statistical significance is denoted by: * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$.

Table A5: Impacts of Demolition and Relocation on Incarceration

	(1)	(2)	(3)
	Control Mean	Diff.: Displaced- Non-displaced, Within Est.	N
Ever Incarcerated (Up to 2012)	0.155	-0.025** [0.012]	5,933
Incarcerated, 2010	0.043	-0.008 [0.007]	5,933
Incarcerated, 2008	0.049	-0.007 [0.008]	5,933
Incarcerated, 2004	0.044	-0.010 [0.009]	3,364
Share of Pres. Election Years in Jail	0.047	-0.005 [0.006]	5,933

Notes: This table analyzes incarceration outcomes for displaced (treated) and non-displaced (control) children. The control mean statistics in Column 1 refer to averages for non-displaced children. The mean difference between displaced and non-displaced children is reported in Column 2. This difference is computed using the regression model specified in Equation 1 where the voting outcome (each row) is the dependent variable for individual i . The independent variables in the regression include an indicator for treatment (displaced) status, a set of project fixed effects, and controls for sex and race. Statistical significance is denoted by: * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$.

Table A6: Impacts of Demolition and Relocation on Voting of Parents

	(1)	(2)	(3)
	Control Mean	Diff.: Displaced- Non-displaced, Within Est.	N
Voting:			
Ever Voted, General	0.371	0.010 (0.011)	4,290
Ever Voted, Primary	0.257	0.008 (0.012)	4,290
Share of Pres. Elections Voted	0.249	0.000 (0.010)	4,290
Voted General, 2016	0.277	0.002 (0.015)	4,290
Voted General, 2012	0.276	0.001 (0.013)	4,290
Voted General, 2008	0.264	0.008 (0.011)	4,290
Voted General, 2004	0.235	-0.006 (0.013)	4,290
Registration:			
Registered	0.414	0.028** (0.011)	4,290
Registered, Non-partisan	0.143	0.017 (0.011)	4,290
Registered, Republican	0.004	0.002 (0.002)	4,290
Registered, Democrat	0.267	0.009 (0.012)	4,290

Notes: This table analyzes adult voting outcomes for displaced (treated) and non-displaced (control) parents. The control mean statistics in Column 1 refer to averages for non-displaced parents. The mean difference between displaced and non-displaced children is reported in Column 2. This difference is computed using the regression model specified in Equation 1 where the voting outcome (each row) is the dependent variable for individual i . The independent variables in the regression include an indicator for treatment (displaced) status, a set of project fixed effects, and controls for sex and race. Statistical significance is denoted by: * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$.

Table A7: Impacts of Demolition and Relocation on Voting by Subgroup

	(1)	(2)	(3)	(4)
Subgroup	Fraction of All Children	Control Mean	Diff.: Displaced-Non-displaced, Within Est.	N
All	1.00	0.301	0.029** (0.014)	5,933
Sex				
Male	0.49	0.201	0.003 (0.015)	2,939
Female	0.51	0.400	0.055** (0.020)	2,994
Age at Baseline				
5-11	0.58	0.281	0.036* (0.019)	3,464
12-18	0.42	0.331	0.016 (0.019)	2,469
Poverty Rate				
Higher	0.80	0.296	0.043** (0.015)	4,760
Lower	0.20	0.320	-0.019 (0.023)	1,173
HH Adult Employment				
No Working Adults	0.83	0.300	0.021 (0.014)	4,887
> 0 Working Adults	0.17	0.306	0.056 (0.035)	1,046
HH Past Arrests				
No Adults with Arrest(s)	0.69	0.295	0.039** (0.017)	4,061
> 0 Adults with Arrest(s)	0.31	0.314	0.009 (0.023)	1,872

Notes: Subgroups are based on baseline (the year prior to relocation due to demolition) characteristics. The control mean statistics in Column 2 refer to averages for non-displaced individuals. The specification includes indicators for treatment interacted with subgroup membership indicators and project fixed effects. Results by baseline neighborhood poverty rate are based on dividing the sample into a group of children residing in “higher poverty projects” where the poverty rate was 87 percent and a group of children residing in “lower poverty projects” where the poverty rate was 66 percent. Robust standard errors are clustered at the public housing building level. Statistical significance is denoted by: * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$.

Table A8: Impacts of Demolition and Relocation on Distance to Polling Places During Adulthood

	(1)	(2)	(3)
Fraction of Adult Years with Address	0.599	-0.007 [0.021]	5,933
Has Address at Age 18	0.756	0.014 [0.023]	5,617
<i>Only Persons with Adulthood Address</i>			
Distance to Nearest Polling (Miles)	0.204	-0.017* [0.009]	4,646
Distance to Nearest Polling (Miles) at Age 18	0.207	-0.010 [0.010]	4,018
Voting Rate	0.666	0.000 [0.005]	4,344
Voting Rate at Age 18	0.662	-0.000 [0.006]	3,327

Notes: The table reports analysis of measures for the distance to nearest polling places and neighborhood voter turnout rates. Location is measured using address data (up to 2009) from IDHS social assistance files. We focus on addresses for displaced and non-displaced children during their adulthood (age > 18). We geocode the address and calculate the distance to the nearest polling station. The polling place data are for 2016 locations in Illinois from [Chen et al. \(2019\)](#). Voter turnout rates are based on data from the Public Mapping Project ([Altman and McDonald, 2021](#)). The control mean statistics in Columns 1 refers to averages for non-displaced households. Using the model from Equation 1, the mean difference between displaced and non-displaced households three years after building demolition is reported in Columns 2. Robust standard errors are clustered at the public housing building level. Statistical significance is denoted by: * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$.

B Description of Data, Sample and Linking Process

The analysis in this paper is based on studying a sample of public housing residents that have been linked to the 2019 Illinois (IL) voterfile purchased from the vendor L2, Inc., a non-partisan firm that supplies voter data to candidates, political parties, and others. The process for creating this data consists of two main steps:

1. **Cleaning the sample of public housing residents:** Chyn (2018) created a sample of public housing residents (adults and children) to study long-run impacts of public housing demolition on labor market and criminal justice outcomes. As summarized in Section 3 and Chyn (2018), this sample was created by matching the street addresses of 53 demolition-affected public housing buildings (including demolished and non-demolished buildings) with social assistance case files from the Illinois Department of Human Services (IDHS). This IDHS data is a list of all Cook County (which includes Chicago) cases for beneficiaries who received social assistance services (TANF, Foodstamps or Medicaid) from 1994 to 1997. These case files are associated with 992,729 individuals (463,542 are recipients (“grantees”) while 529,187 are individuals living in the same household). With the merged data, we look for social assistance cases where the household (grantees and the other individuals listed on a case) had an address matched to a demolition affected public housing address in the year prior to building closure. Note that this process includes identifying individuals living in the set of non-demolished buildings in the year before a building closure for demolition occurs in their housing project. This focus on the year before building closure ensures the definition for the sample of child households is unrelated to any impact that demolition has on public assistance participation. We estimate that the assistance records covers at least 73 percent of the households living in the demolition sample of buildings.^{B1} The process results in a preliminary sample that contains 6,135 children ages 5 to 18 that lived in public housing in the year before demolition.^{B2} To link this data to voting records, we define a matching set of variables as first name, last name and date of birth. There are 202 children (3.3 percent) who have non-unique or missing information in terms of the matching set of variables. We drop these children with duplicated matching variable information. The remaining 5,933 children are the main sample for the voting analysis in this paper.
2. **Linking public housing residents to the L2 voter records:** We link the sample of 5,933 public housing children to voter records provided by L2, Inc. Voting data from L2 has been used in prior research (Velez and Newman, 2019; Yoder, 2019; Enamorado et al., 2019). We obtained state-specific voting records from Illinois and neighboring states (i.e., Indiana, Iowa, Kentucky, Michigan, Missouri, and Wisconsin). L2 obtains a snapshot of voting records directly from state voting authorities (e.g., the Illinois Secretary of State office). All L2 voter files include voter registration information for the full state, as well as voter turnout in the 2000-2018 general and primary elections. In addition to the voter file, L2 supplements this data with additional commercial fields, though for the purposes of this paper we just use fields provided by the State (as well as an L2-modeled party affiliation variable). Specifically, we use the full name, date of birth, indicators for whether the individual voted in each national election, and a modeled variable indicating the party of the voter.^{B3} Both L2 and the State routinely clean the voter file and remove individuals who are either deceased or moved (based on the National Change of Address). As an example, we will not observe an individual in the records from Illinois if they voted in Illinois in 2014 but moved between 2015 to 2019 (provided that their move

^{B1}The social assistance data contain 5,677 distinct households (including those without children ages 5-18) who lived in public housing in the year before building closure. Since the sample of public housing buildings contains 7,770 individual apartments, this suggests that the assistance sample covers at least 73 percent of the households living in the demolition sample of buildings. Note that this estimate is likely a lower bound as the calculation assumes that there are no vacant apartments.

^{B2}The sample of 6,135 children ages 5 to 18 living in public housing was originally created for Chyn (2018). Records for children less than age 5 were not retained because these children were too young to be in the labor market in 2009, which was the latest year contained in the employment data used in Chyn (2018).

^{B3}Since Illinois (and many other states) do not record the party of a voter, L2 provides a modeled field based on voting in partisan primaries. Specifically, they use the most recent even year primary in which a voter cast a partisan ballot. For example, if an individual voted in the Democrat primary in 2018 and the Republican primary in 2016, they will be recorded as a Democrat. If the voter has participated in no primaries (or most recently voted in a primary outside the Democratic or Republican parties), then she will be recorded as Non-Partisan. See Appendix Table B2 for more detail on this partisanship variable in Illinois as well as the other states.

was recorded in the National Change of Address). However, if they moved to and voted in one of the six bordering states, they will show up in our voter file sample. To link the sample of public housing children and the voting records, we use first name, last name and date of birth. Prior studies also use name and date of birth to link administrative records and voting records. For example, [Baicker and Finkelstein \(2018\)](#) use full name, date of birth and gender to link data from the Oregon Health Experiment to voting records. [Akee et al. \(2018\)](#) use first name, last name and date of birth to link the Great Smoky Mountains Study survey data to voting records. [Holbein \(2017\)](#) use first name, last name and birthday to match individuals who participated in the Fast Track intervention to voter records. Our linking based on first name, last name and date of birth results in 2,227 public housing children (41 percent) that can be linked to the L2 voting records.^{B4, B5} There are 9 children who link to two distinct registration records in the voter files from Illinois and the surrounding border states. For these 9 cases, we randomly selected one of the two linked voter records to retain for our analysis.

Finally, the remainder of this section provides additional background information for our analysis. Specifically, Tables B1 and B2 below summarize the data sources and key variables used in this study. In addition, Tables B3 and B4 list the demolition (treated) and comparison group buildings used in this paper. The date of building closure for each treated building is taken from [Jacob \(2004\)](#). After the initial wave of public housing demolitions (1995-1998), the CHA subsequently demolished comparison group buildings. Note that Table B4 provides dates of later demolition for the comparison group buildings based on CHA administrative data.

^{B4}The sample of public housing children are ages 29 to 42 in 2019. To provide some relevant points of comparison, the Current Population Survey November Supplement provides self-reported registration rates by background characteristics. This data shows the self-reported registration rate for persons between 25-34 in Illinois is 55.5 percent (63.1 percent for U.S. citizens specifically) ([U.S. Census, 2018a](#)). While our match rate of 41 percent is lower than the statewide self-reported voter registration rate, it is also important to note our sample is composed of individuals from particularly disadvantaged backgrounds. Prior research shows that voting and political behavior in the U.S. is strongly related with income ([Erikson, 2015](#)). Moreover, black voters living poor neighborhoods are much less likely to be politically active relative to similar poor residents of more affluent neighborhoods ([Cohen and Dawson, 1993](#); [Alex-Assensoh, 1998](#)). The CPS data shows registration rates for US citizens between the ages of 25-44 with family incomes under \$10,000 at 54.3 percent and for incomes of \$10,000 to \$14,999 at 49.1 percent ([U.S. Census, 2018b](#)). Finally, one key caveat to the CPS registration rates – similarly noted by [Akee et al. \(2018\)](#) – is that they may be inflated by social desirability bias, as they are based on survey reports.

^{B5}We also explored an alternative linking based on probabilistic matching methods. Reassuringly, we obtain similar results when we study a sample constructed using probabilistic matching methods. See Section B.1 for details.

Table B1: List of Original and Intermediate Data Files

#	File Name	Notes
1	Chicago Housing Authority: Building Address and Occupancy Files	Building addresses for all buildings in the Chicago Housing Authority inventory during the 1990s. Obtained from Brian Jacob.
2	Sample of Demolished and Non-Demolished Public Housing Building Addresses	Created from File #1 based on Jacob (2004) sample definition. Details on construction described in the main text.
3	IDHS Social Assistance Case Files from 1994-1997	List of all recipients (grantees and household members) of social assistance services (TANF, SNAP or Medicaid) from 1994 to 1997 in Cook County.
4	Sample of IDHS Recipients Living in Demolished and Non-demolished Public Housing Addresses	Created from File #3. Note that the sample is defined based on public housing demolitions that occurred from 1995-1998.
5	ISP Crime Records	Comprehensive criminal justice data (recorded at the person and date level) up to 2010. Type of offense details included.
6	IDES Unemployment Insurance Records	Quarterly earnings data from 1995-2009.
7	IDHS Social Assistance Files	Monthly (TANF, SNAP, Medicaid) participation from 1989-2010 for Cook County residents on social assistance at some point during 1994-1997.
8	L2 Voting Files	Records are from state voting authorities in Illinois, Indiana, Iowa, Kentucky, Michigan, Missouri, and Wisconsin. These files include voter registration information for each state, as well as voter turnout in the 2000-2018 general and primary elections.
9	Main Analysis File	Person-level observations for the sample of displaced and non-displaced public housing persons (i.e., File #4). Each observation includes post-demolition voting-related measures from the files listed in #8.

Table B2: List of Key Variables

#	Variable	Details
1	Ever Voted, General	Indicator equal to 1 if the individual ever voted in any general election from 2000-2018.
2	Ever Voted, Primary	Indicator equal to 1 if the individual ever voted in any primary election from 2000-2018.
3	Voted General, 2016	Indicator equal to 1 if the individual voted in the 2016 general election.
4	Voted General, 2012	Indicator equal to 1 if the individual voted in the 2012 general election.
5	Voted General, 2008	Indicator equal to 1 if the individual voted in the 2008 general election.
6	Voted General, 2004	Indicator equal to 1 if the individual voted in the 2004 general election.
7	Share Pres. Elections Voted	Share of the presidential elections that the individual voted in during the period 2000-2016. Note that the measure only consider elections in which an individual was at least 18 years old. For example, if an individual was born in 1990, they would not have been eligible to vote in the 2004 presidential election, and we do not include this election in the measure.
8	Registered	Indicator equal to 1 if the individual was listed as a registered to vote in any of the L2 records available for our study.
9	Registered, Democrat	Indicator equal to 1 if the individual was coded by L2 as being affiliated with the Democratic Party. In Iowa and Kentucky, this party affiliation is directly self-reported on the voter registration form. In Missouri and Wisconsin, L2 models this based “on a great many public and private data sources including demographics available through the voter file, exit polling from presidential elections, commercial lifestyle indicators, census data, self-reported party preferences from private polling and more.” In Michigan, L2 uses similar modeling as in Missouri, but also uses the measurement of partisan ballots in the 2016, 2012, and 2008 Presidential primary elections (before these were deleted from the state voter file). In Indiana and Illinois, affiliation is based on the most recent even year primary where a voter cast a partisan ballot (i.e., it equals 1 if the individual voted in the Democratic primary).
10	Registered, Republican	Indicator equal to 1 if the individual was coded by L2 as being affiliated with the Republican Party (same methodology as “Registered, Democrat”).
11	Registered, Non-partisan	Indicator equal to 1 if the individual is a registered voter and was not coded by L2 as a Democrat or Republican.

Table B3: Treated Demolition Buildings and Dates of Building Closure

Project Name	Building #	Closure due to Demolition Date (Jacob, 2004)
Ida B. Wells Homes	1	1-Sep-95
Ida B. Wells Homes	3	1-Sep-95
Madden Park	10	1-Sep-95
Madden Park	11	1-Sep-98
Robert Taylor Homes	28	1-Sep-98
Robert Taylor Homes	10	1-Sep-98
Robert Taylor Homes	11	1-Sep-98
Robert Taylor Homes	21	1-Sep-98
Robert Taylor Homes	1	1-Sep-95
Robert Taylor Homes	4	1-Sep-98
Robert Taylor Homes	25	1-Sep-98
Robert Taylor Homes	16	1-Sep-98
Robert Taylor Homes	17	1-Sep-98
Robert Taylor Homes	20	1-Sep-98
Rockwell Gardens	1	1-Sep-98
Rockwell Gardens	2	1-Sep-98
Stateway	4	1-Sep-96
Washington Park	26	1-Sep-95
Washington Park	85	1-Sep-95
Washington Park	44	1-Sep-95

Notes: Building closure dates come from [Jacob \(2004\)](#) and are based on CHA administrative records.

Table B4: Comparison Group Buildings and Subsequent Demolition Dates

Project Name	Building #	Demolition Date
Ida B. Wells Homes	4	7-Jul-09
Ida B. Wells Homes	5	7-Jul-09
Ida B. Wells Homes	7	7-Jul-09
Ida B. Wells Homes	8	7-Jul-09
Ida B. Wells Homes	9	7-Jul-09
Ida B. Wells Homes	10	7-Jul-09
Madden Park	9	14-Sep-02
Robert Taylor Homes	6	30-Apr-03
Robert Taylor Homes	7	30-Apr-03
Robert Taylor Homes	5	30-Apr-06
Robert Taylor Homes	27	27-Aug-01
Robert Taylor Homes	9	30-Apr-05
Robert Taylor Homes	13	30-Sep-02
Robert Taylor Homes	14	30-Apr-02
Robert Taylor Homes	2	30-May-04
Robert Taylor Homes	3	30-May-03
Robert Taylor Homes	24	15-Oct-02
Robert Taylor Homes	26	30-May-03
Robert Taylor Homes	18	5-Apr-04
Robert Taylor Homes	19	30-Apr-03
Robert Taylor Homes	12	26-Apr-07
Rockwell Gardens	4	2-Jun-06
Rockwell Gardens	6	12-Jul-06
Stateway	5	11-Sep-07
Stateway	6	30-Sep-02
Stateway	7	30-Sep-02
Stateway	8	30-May-03
Stateway	9	5-Apr-04
Stateway	1	23-Jul-02
Stateway	3	30-May-03
Washington Park	35	30-Apr-07
Washington Park	42	15-Oct-02
Washington Park	65	30-Apr-03

Notes: Date of demolition taken from CHA administrative records.

B.1 Robustness to Alternative Linking for the Sample Construction

For our main analysis, we rely on a sample that was created based on linking children in social assistance records to the voting records using first name, last name and exact date of birth. In this subsection, we demonstrate that we obtain similar results when we study a sample constructed using an alternative linking process based on probabilistic matching methods. One concern for this approach is that we could potentially obtain false matches due to using a less restrictive matching criteria. Using this alternative linking process, we create a sample with a match rate of 45 percent. Table B5 reports the results for our main voting outcome analysis using this alternative sample. Reassuringly, we find similar results for the impacts on all voting outcomes. For example, we find that the impact of demolition and relocation is a positive 3.5 percentage points impact on the likelihood of ever voting in a general election (2000-2018). In our main estimates (based on exact matching), the corresponding point estimate is 2.9 percentage points.

Table B5: Alternative Sample: Impacts of Demolition & Relocation on Long-run Voting of Children

	(1)	(2)	(3)
	Control Mean	Diff.: Displaced- Non-displaced, Within Est.	N
Voting:			
Ever Voted, General	0.348	0.035** (0.015)	5,933
Ever Voted, Primary	0.168	0.023* (0.013)	5,933
Voted General, 2016	0.217	0.022* (0.012)	5,933
Voted General, 2012	0.214	0.035** (0.014)	5,933
Voted General, 2008	0.207	0.020 (0.012)	5,933
Share of Pres. Elections Voted	0.198	0.027** (0.010)	5,933
Share of General Elections Voted	0.135	0.016** (0.008)	5,933
Registration:			
Registered	0.448	0.023* (0.012)	5,933
Registered, Non-partisan	0.272	0.009 (0.013)	5,933
Registered, Republican	0.005	-0.000 (0.002)	5,933
Registered, Democrat	0.171	0.016 (0.014)	5,933

Notes: This table presents results based on an alternative sample where we link records using probabilistic matching methods. The table analyzes adult voting outcomes for displaced (treated) and non-displaced (control) children. The control mean statistics in Column 1 refer to averages for non-displaced children. The mean difference between displaced and non-displaced children is reported in Column 2. This difference is computed using the regression model specified in Equation 1 where the voting outcome (each row) is the dependent variable for individual i . The independent variables in the regression include an indicator for treatment (displaced) status, a set of project fixed effects, and controls for sex and race. Statistical significance is denoted by: * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$.

B.2 Robustness to Using Historical Voting Records (Illinois Only)

For our main analysis, we rely on a sample that was created based on linking children in social assistance records to the voting records as of 2019. In this subsection, we demonstrate that our main conclusions remain when we study a sample constructed by linking our data to voting records from 2013. Note that due to data limitations, we can only produce this analysis for Illinois. In this way, this section differs from our main analysis which is based on using voting records from Illinois *and* its six bordering states.

Table B6 provides a comparison of the results from analyzing the two samples created by linking to the 2013 and 2019 Illinois voting records, respectively. Reassuringly, we find similar results for the impacts on all voting outcomes regardless of the vintage of voting records. For example, we find that the impact of demolition and relocation is a positive 4.2 percentage points impact on the likelihood of ever voting in a general election (2000-2018) using the 2013 records. In the sample based on 2019 records, the corresponding point estimate is 3.3 percentage points.

Table B6: Alternative Voting Records from Illinois: Impacts of Demolition & Relocation on Long-run Voting of Children

	2013 Illinois Voter File			2019 Illinois Voter File		
	(1)	(2)	(3)	(4)	(5)	(6)
	Control Mean	Diff.: Displaced- Non-displaced, Within Est.	N	Control Mean	Diff.: Displaced- Non-displaced, Within Est.	N
Voting:						
Ever Voted, General	0.286	0.042** (0.018)	5,933	0.283	0.033** (0.014)	5,933
Ever Voted, Primary	0.069	0.013* (0.008)	5,933	0.142	0.020* (0.010)	5,933
Voted General, 2012	0.225	0.040** (0.016)	5,933	0.177	0.028** (0.012)	5,933
Voted General, 2008	0.180	0.022 (0.014)	5,933	0.172	0.022* (0.011)	5,933
Share of Pres. Elections Voted	0.178	0.036*** (0.013)	5,933	0.162	0.027*** (0.010)	5,933
Share of General Elections Voted	0.123	0.023** (0.009)	5,933	0.110	0.016** (0.007)	5,933
Registration:						
Registered	0.383	0.025 (0.017)	5,933	0.371	0.020* (0.012)	5,933
Registered, Non-partisan	0.319	0.012 (0.017)	5,933	0.231	0.005 (0.012)	5,933
Registered, Republican	0.000	0.001 (0.001)	5,933	0.004	-0.002 (0.001)	5,933
Registered, Democrat	0.065	0.012* (0.007)	5,933	0.136	0.016* (0.009)	5,933

Notes: This table presents results based on two alternative samples that we created by linking the main sample of children to 2013 (Columns 1-3) and 2019 (Column 4-6) voting records from Illinois. The table analyzes adult voting outcomes for displaced (treated) and non-displaced (control) children. The control mean statistics in Columns 1 and 4 refer to averages for non-displaced children. The mean difference between displaced and non-displaced children is reported in Columns 2 and 5. This difference is computed using the regression model specified in Equation 1 where the voting outcome (each row) is the dependent variable for individual i . The independent variables in the regression include an indicator for treatment (displaced) status, a set of project fixed effects, and controls for sex and race. Statistical significance is denoted by: * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$.

C Attrition and Spillovers

As discussed in Section 3, it is important to examine two possible threats to the identification and the interpretation of our estimates. First, one potential issue is sample attrition. The data that we use allows us to observe individual registration and voting outcomes as long as a person lives in Illinois or one of the six bordering states. A concern is that our estimates will be biased if displaced children are more likely to move to a state that is not captured in the voting records we use. In this case, our data would suffer from a missing data problem: an individual will be recorded as not being registered or having voted even if they are politically active in a new state of residence.

There are at least two reasons why attrition due to moving out of Illinois may not be a concern for our analysis. First, as documented in [Chyn \(2018\)](#), an analysis of National Student Clearinghouse data shows that 3.5 percent of the demolition sample ever attends a two- or four-year out of state university. There are no detectable differences between displaced and non-displaced children in the out-of-state attendance rate. Second, [Jacob et al. \(2015\)](#) study children in Chicago whose households lived in private market housing and won a housing voucher. As part of their analysis, they used address data from the National Change of Address (NCOA) registry and national credit bureau checks. They found that 86 percent of children and their households were still living in Illinois after about 15 years.

In addition to this evidence, we follow a standard approach in the literature to study attrition due to migration out of Illinois. Specifically, we follow [Grogger \(2013\)](#) and impute attrition A using various administrative sources. This measure of attrition is straightforward and is based on observing terminal runs of zeros. Permanent attrition at time t implies that an outcome is zero subsequently (i.e. $Y_{i,t+j} = 0 \forall j \in \{1, \dots, T-t\}$, where Y is an administrative data outcome and T denotes the last unit of time in the data). For a single outcome k , we measure attrition by creating a binary indicator of a d -period run of zeros as:

$$a_{i,t}^k(d) = \mathbf{1} \left(\sum_{j=0}^{d-1} Y_{i,t+j}^k = 0 \right).$$

Administrative data for the K -many outcomes available across administrative sources can be pooled and attrition can be measured as:

$$a_{i,t}(d) = \mathbf{1} \left(\sum_{j=1}^K a_{i,t}^k(d) = K \right).$$

In what follows, we use the following compact notation: $a_{i,t}^k \equiv a_{i,t}^k(d)$ and $a_{i,t}(d) \equiv a_{i,t}$.

Appendix Table A3 reports our analysis of attrition. In summary, we find no evidence that displaced children are more likely to move out of Illinois.^{C1} The attrition measure that we use is based on pooling separate measures of attrition using data on employment, social assistance receipt (foodstamps, TANF or Medicaid), arrests and imprisonment. We measure attrition in each year t after demolition (up to 2009). For example, the first entry of Column 1 shows that 1.1 percent of the non-displaced children began a terminal run of zeros for all outcomes in the first year after demolition (up to 2009). Column 2 tests whether displaced and non-displaced youth have detectably different rates of attrition using Equation 1. Note that the sample size changes in post demolition years 12, 13 and 14 because some children are displaced in 1998 so they only have 11 years of post-demolition data.

Second, another plausible concern is that the demolition could have affected the long-term political participation of the control group. This spillover threat seems particularly plausible if the mechanism by which demolition affects participation is a psychological channel such as conveying a message about the quality of government services or encouraging a feeling of powerlessness ([Baicker and Finkelstein, 2018](#); [Soss, 1999](#); [Schneider and Ingram, 1993](#)). Such an “interpretive effect” may operate, as the control group would see homes similar to their own demolished, but would be unable to move through the housing vouchers made available to their neighbors.^{C2}

^{C1}Note that we can also use the voting records from states bordering Illinois to assess whether displaced children are more likely to move out of Illinois. We find no evidence that demolition and relocation has a detectable impact on the likelihood of matching to a border state voting record.

^{C2}Prior work in political science has considered the potential role of spatial spillovers. [Sinclair et al. \(2012\)](#) find no evidence of spatial spillovers due to interpersonal communication in a large-scale voter mobilization experiment.

To test for this threat, we assume that social interactions between buildings (and thus, spillovers) are decreasing with distance, and compare children who lived in control group buildings close to the demolished ones with those in the control group who lived further away. Formally, we implement this test by augmenting Equation 1 with additional indicators for living in a control building that is adjacent to a demolition building:

$$y_i = \alpha + \beta' D_{b(i)} + \pi N_{b(i)} + X_i' \theta + \psi_{p(i)} + \epsilon_i, \quad (C2)$$

where $N_{b(i)}$ is an indicator that a public housing building borders (is adjacent to) a demolition-targeted building. The omitted group in the regression is the set of children living in stable buildings located farther away from a demolished building. Appendix Table A4 reports results that show that we find no evidence of spillovers given that the analysis fails to reject the null $\pi = 0$ across voting outcomes, and the estimates of $\hat{\pi}$ are generally small in magnitude.^{C3}

D Voting Access and Participation Related Mechanisms

In this section, we explore two potential mechanisms related to voter access and participation rates in one’s adulthood neighborhood. First, we consider a proxy for the ease of voting. In particular, prior research suggests that distance to polling places causally reduces voting participation (Cantoni, 2020). As in the neighborhood characteristics analysis, we use an annual panel of addresses (up to 2009) from social assistance records. We geocoded these addresses and compute distance to polling places using 2016 polling locations from Chen et al. (2019). Our main outcomes are the distance to the nearest polling station at age 18 and the average distance to the nearest polling place during adulthood (up to 2009). Appendix Table A8 shows that displaced and non-displaced children generally live similar distances to polling stations during adulthood. While the point estimate for average distance during adulthood years is negative and statistically significant at the 10 percent level, the magnitude indicates that displaced children live just 0.017 miles closer to the nearest polling station. Focusing on distance at age 18, the results show no statistically significant impacts of demolition and relocation. Relative to prior studies, this effect on average distance is too small to explain the voting impacts. The largest estimate in Cantoni (2020) suggests that a one-mile increase in distance to polling stations decreased turnout by 14.5 percentage points in the 2012 Presidential Election. Based on this prior evidence and our point estimate, we would expect that this could explain at most 9 percent ($= 0.017 \times 14.5 = 0.25$ percentage points) of the 2.9 percentage point effect.

Second, we consider a mechanism related to social networks. Moving to higher opportunity neighborhoods likely has an effect on the composition of one’s social network later in life.^{D1} If, for example, one’s friends are more likely to vote, then this peer effect could directly affect one’s voting propensity. Note that while this is related to the socialization channel discussed in Section 5.5, it’s possible that peer effects could operate over a shorter time horizon (e.g., even if one’s preferences around voting are unchanged by the slow process of socialization, having friends who vote on Election Day could change turnout by, for example, allowing one to carpool to the polling place). We unfortunately do not have access to social network data; however, we can investigate a proxy based on the voter turnout rate for one’s neighborhood in adulthood. Specifically, we use a voting rate measure based on data from the Public Mapping Project (Altman and McDonald, 2021). Note that the measure combines totals from the 2008 Presidential Election precinct-level voter turnout data and estimates for the Voting Age Population from the Census.^{D2} As shown in Table A8, we find no significant treatment effect on this measure of voter engagement.

It bears noting that both mechanisms in this section are potentially noisy proxies of the underlying constructs of interest. For example, the voting rate in one’s neighborhood might be a poor measure of the

^{C3}Moreover, we find the treatment effects of demolition and relocation (i.e., estimates of β) on voting are similar to the main results that we obtain with Equation 1.

^{D1}Gay (2012) also explores social networks as an explanation for their results. She finds evidence that the moves in adulthood could have disrupted one’s social ties and thereby diminished one’s civic engagement. The effects of moves in childhood on the strength of social ties in adulthood, however, is less clear. While the strength of ties may be ambiguous, it is plausible that the (demographic or otherwise) composition of one’s eventual adult network are affected by the displacement.

^{D2}Specifically, the Public Mapping Project constructed block-level measures of the numerator and denominator of this voting rate. Given that vote totals are observed at the precinct level, the authors first apportioned vote totals among blocks according to the share of voting-age population of each block within each precinct. We sum these block-level measures of the numerator (vote total) and the denominator (voting-age population) to the Census Tract and then divide to produce a Census Tract-level voting rate measure. We do this to match the definition of neighborhood used throughout the paper (Census Tract).

voting rate in one's social network. Thus, while this section is suggestive that these mechanisms are not primary, the conclusion remains tentative.

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