APPENDIX A. SUMMARY STATISTICS FOR MAJOR US SUBSIDIZED RENTAL HOUSING PROGRAMS

Table A1: Total Subsidized Rental Dwelling Units in 1990, 2000, 2010, and 2013

	1990	2000	2010	2013
Public Housing	1,404,870	1,282,099	1,168,503	1,150,867
Housing Choice Vouchers (previously Voucher-supported housing - Tenant-Based)	1,137,244	1,817,360	2,250,221	2,386,237
Voucher-supported housing - Moderate Rehabilitation	*	111,392	21,579	19,148
Voucher-supported housing - New Construction or Substantial Rehabilitation	822,962	877,830	842,693	840,900
Federal Housing Authority (FHA) Section 236 Projects	530,625	440,329	214,419	126,859
All Other Multifamily Assisted Properties with FHA Insurance or Department of Housing and Urban Development (HUD) Subsidy	*	352,337	597,711	656,456
All HUD-subsidized units	**4,515,000**	**4,881,081**	**5,095,126**	**5,180,467**
Low Income Housing Tax Credit (LIHTC)	139,094	945,347	1,974,163	1,974,163

Notes:
Data from Olsen (2003) for 1990; HUDUSER, U.S. Department of Housing and Urban Development (HUD), for 2000, 2010, and 2013. {*} Data not readily available.

Table A2: Public Housing Participant Characteristics
For All PHAs, non-MTW PHAs, and MTO PHAs

	All (1)	Non MTW Areas (2)	MTO Areas (3)
Household size	2.068	2.066	2.329
	(0.669)	(0.670)	(0.464)
Tenant monthly contribution	196.136	195.868	239.167
	(53.276)	(53.158)	(30.096)
Income mostly wages	26.296	26.282	25.000
	(15.030)	(15.058)	(8.583)
Income mostly welfare	6.061	6.009	16.714
	(6.519)	(6.492)	(8.440)
Household income (thousands)	9.781	9.774	10.843
	(2.362)	(2.360)	(2.084)
% of area median income	28.129	28.156	21.857
	(6.382)	(6.354)	(5.367)
% single-parent household w/children	27.575	27.553	28.286
	(17.715)	(17.746)	(5.529)
% Black non-Hispanic	28.548	28.407	54.714
	(34.180)	(34.146)	(25.766)
Mean time on waitlist (months)	11.527	11.481	29.143
	(67.801)	(68.045)	(19.718)
% minority in census tract	27.959	27.772	74.571
	(26.055)	(25.968)	(14.954)
% poverty in census tract	18.581	18.534	32.571
	(9.494)	(9.463)	(8.696)
Number of households	1,135,638	1,033,069	215,789

Notes:
Table displays summary statistics for Public Housing participants in all housing authorities, in non-Moving to Work housing authorities which are retained in the main sample of this paper (non-MTW), and Moving to Opportunity (MTO) housing authorities. For each characteristic, the mean and standard deviation in all housing authorities are shown in Column 1, the mean and standard deviation for non-MTW housing authorities are shown in Column 2, and the mean and standard deviation for MTO housing authorities are shown in column 3. Income mostly wages is the percent of participating households who receive the majority of their household income from wages and Income mostly welfare is the percent of participating households who receive the majority of their income from welfare. Minority includes Black non-Hispanics, Native American non-Hispanics, Asian non-Hispanics, and Hispanics. Summary statistics are computed using housing authority level means weighted by the number of households participating in Public housing through that housing authority. Standard deviations appear in (). Numbers based on Authors' calculations using HUDUSER Picture of Subsidized Households data from the year 2000.

Table A3: Section 8 Voucher-Supported Housing Participant Characteristics
For All PHAs, non-MTW PHAs, and MTO PHAs

	All (1)	Non MTW Areas (2)	MTO Areas (3)
Household size	2.500	2.498	2.714
	(0.508)	(0.509)	(0.069)
Tenant monthly contribution	208.847	208.628	235.857
	(65.548)	(65.495)	(50.078)
Income mostly wages	34.630	34.627	33.571
	(10.551)	(10.583)	(6.477)
Income mostly welfare	8.615	8.552	17.286
	(6.587)	(6.556)	(7.135)
Household income (thousands)	9.834	9.820	11.471
	(2.380)	(2.378)	(1.389)
% of area median income	23.633	23.649	21.857
	(5.033)	(5.040)	(4.298)
% single-parent household w/Children	43.679	43.659	41.857
	(13.283)	(13.305)	(7.537)
% Black non-Hispanic	25.759	25.561	62.429
	(30.686)	(30.616)	(23.129)
Mean time on waitlist (months)	21.017	20.940	42.143
	(19.425)	(19.439)	(15.049)
% minority in census tract	20.441	20.228	44.429
	(22.870)	(22.692)	(32.567)
% poverty in census tract	11.693	11.648	13.571
	(8.899)	(8.889)	(10.876)
Number of households	1,470,897	1,364,391	170,922

Notes:
Table displays summary statistics for Section 8 Tenant-based voucher housing participants in all housing authorities, in non-Moving to Work housing authorities which are retained in the main sample of this paper (non-MTW), and Moving to Opportunity (MTO) housing authorities. For each characteristic, the mean and standard deviation in all housing authorities are shown in Column 1, the mean and standard deviation for non-MTW housing authorities are shown in Column 2, and the mean and standard deviation for MTO housing authorities are shown in column 3. Income mostly wages is the percent of participating households who receive the majority of their household income from wages and Income mostly welfare is the percent of participating households who receive the majority of their income from welfare. Minority includes Black non-Hispanics, Native American non-Hispanics, Asian non-Hispanics, and Hispanics. Summary statistics are computed using housing authority level means weighted by the number of households participating in the Section 8 tenant-based voucher housing through that housing authority. Standard deviations appear in (). Numbers based on Authors' calculations using HUDUSER Picture of Subsidized Households data from the year 2000.

APPENDIX B. ROBUSTNESS

B.1   *Wait times and selection into housing*

As pointed out by Jacob and Ludwig (2012) and others, subsidized housing programs are frequently oversubscribed, leading to lengthy lags between when households apply for a particular program and when they are allotted a voucher or public housing unit. Households that apply to an oversubscribed subsidized housing program may end up with children exposed to different amounts of the program purely as a result of their mandated wait time. Consider a household with one 13-year-old and one 12-year-old, that applies for a public housing program, is placed on the waitlist for one year, and then remains in that project thereafter. In the absence of the wait time, both children would experience the same amount of public housing participation while of age 13-18: 6 years. However, because of the 1-year wait, the 13-year-old will end up spending only 5 years in public housing between the age of 13 and 18 while the 12-year-old will spend 6 years.

Our data confirm that there sometimes exist substantial wait times for both public and voucher-assisted housing. To illustrate these wait times, we use data on all subsidized housing participants from the year 2000. For most households, the data contain information on the date they entered a waitlist as well as the date they were granted admission to the program. In some cases the two dates are the same, indicating there was no wait for the program, but most households face non-trivial waiting periods. As noted in the main text, Figure 2 displays the distribution of wait times for individuals in voucher and public housing who entered subsidized housing no earlier than 1995 and who were found in subsidized housing in 2000. We restrict the entrance date to be after 1995 because data quality is lower in the early 1990s and because these waits are likely to be a better approximation to the waits experienced by the households in our sample. Figure 2 indicates that about 12 percent of public housing residents and 29 percent of housing voucher recipients faced wait times of 1 year or more. Clearly, many prospective subsidized housing participants face lengthy lags between when they apply and when they are admitted to programs. These lags offer another plausible explanation for the observed within-household differences in subsidized housing participation.

In Table B1 we present estimates for two subsamples that differ by whether the household resided in a county in 2000 with average subsidized housing wait times of less than or greater than 9 months (approximately the median county-level wait time). The HFE estimates are similar to the main results in Table 3 for both low and high wait time areas. In no case can we

reject the hypotheses that the estimated treatment effects are the same in two samples. Had we found that our results were driven by estimates for the low wait time counties, we might be concerned that opportunistic sorting was biasing the HFE results. The finding of similar effects in both areas reinforces the conclusion that time-varying economic shocks are unlikely to generate bias for our results. We believe that together with the lack of movement in the treatment effects when we control for time-varying parents' earnings, the lack of a difference in low and high wait time areas further supports the conclusion that the HFE estimates are likely to represent causal effects.

B.2   *Within-household selection into housing*

Early departure of teenagers from households could also potentially bias our HFE results in an ambiguous direction. If children depart their home early to attend a post-secondary institution, we would observe them having less participation in subsidized housing while a teenager and, most likely, higher earnings at age 26 and a reduced likelihood of incarceration in 2010. Our estimates of the impact of subsidized housing on earnings would therefore be biased downwards. Conversely, if children depart home early because they are institutionalized in a juvenile (or adult) facility, our HFE estimates would be positively biased.

To address these concerns, we implement a household fixed-effects instrumental variables specification (HFE-IV) that uses the observed participation in public and voucher assisted housing of the head of household from the 2000 Census, along with the birth dates of the teenagers in our sample, to define a predicted measure of teenaged participation in both public and voucher assisted housing. We then use these predicted participation measures as instruments for the observed participation of the teenager. For example, consider the case where some children in public housing depart their homes at age 17 to attend college. Compared to their siblings who don't attend any post-secondary school, they are likely to earn more at age 26. The HFE specifications will wrongly attribute this earnings difference to the reduced time in public housing. However, as long as the heads of household remain in public housing, the predicted public housing measure for these child will not reflect their early departures. Instead, the teenagers will be treated as though they remained in public housing through age eighteen. The same will be true of individuals who are incarcerated while still a teenager. By instrumenting the observed participation using the predicted participation, we are discarding any variation from early child departures from the household.

The predicted participation measures are calculated in the following way. In any given year, if a parent is in subsidized housing and the child is in the 13-18 year-old age range, then the predicted participation measure indicates that the child is in subsidized housing in that year. If either the child is not between the ages of 13 and 18 or the head of household is not observed in subsidized housing, then the predicted participation measure will take on a value of zero for that year. As with our main treatment measures, we sum up the predicted years spent in voucher housing and the predicted years spent in public housing while each individual was between 13 and 18 years of age.[47] We also include interactions between the predicted treatment measures and the male indicator as instruments for the interactions between the observed treatment and the male indicator.

Using this predicted treatment measure, Table B2 reports household fixed-effects results using the actual treatment (also found in column 2 of Table 3), using the predicted treatment instead of the actual treatment, and instrumenting for the actual treatment with the predicted treatment. We transform the earnings variable in all specifications into a distributional measure, giving the earnings percentile of each child in their age 26 year among all children in the sample. We use this transformation so that the outcome is more robust to outliers and is less sensitive to extremely small within-household differences which may be particularly troublesome as the HFE-IV estimates use only a fraction of the total within-household variation in subsidized housing. Given this transformation, the HFE estimates in column two are not directly comparable to the main result in Table 3. Instead, the results provide estimates of the impact on the percentile rank. As the outcome is more robust and less subject to outliers, the results for the actual treatment in column two are of independent interest.

The OLS estimates with the percentile rank dependent variable suggest large, negative, and statistically significant effects of both subsidized housing programs on age 26 earnings for males and females. As with the inverse hyperbolic sine of age 26 earnings however, these associations appear to be driven entirely by the negative selection of households into assisted housing. The HFE estimates in column 2 follow the same pattern as those displayed in Table 3: the effect of public housing and voucher housing on age 26 earnings is positive, with larger

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[47] The household-predicted housing subsidy measure could also be thought of as another, noisy measure of child housing subsidy. For an example of how a one noisy measure can be used to instrument for another, see Ashenfelter and Krueger (1994). In that study, IV first-differences estimates turn out to be substantially higher than first-differences estimates with no IV, suggesting that noise was attenuating the baseline result. In any event, the results in Table B2 suggest that measurement error is not importantly affecting our results.

effects of voucher housing for females than males and slightly larger effects of public housing for males than female. The point estimates suggest that each additional year of voucher housing increases age 26 earnings by over a quarter of a percentile for females and roughly a tenth of a percentile for males. The corresponding effects for public housing are .237 of a percentile for females and nearly three tenths of a percentile for males.

Turning to the estimates that use the predicted treatment measures (Column 3), there is little movement in the housing voucher estimates relative to the HFE estimates in column 2. The effect for females remains large, positive, and statistically significant at the 1% level and the male interaction is negative and statistically significant. The female public housing estimate is the only one of the four coefficients that is qualitatively different in columns 2 and 3, though the confidence intervals are sufficiently large that we can't reject that the effect of public housing is equal when using the observed participation measure and the predicted participation measure.

Before discussing the HFE-IV estimates in column 4, we note that the first stage estimates—shown in the lower panel of the table—indicate that the predicted participation measures are highly predictive of observed participation. The first stage coefficients are all significant at the 1% level and of the expected signs. An additional year of predicted participation in subsidized housing is associated with between .73 and .90 additional years of observed participation, depending on the program and gender of the child. Further, the Kleinbergen-Paap Wald statistic (4568.090) is well above the critical values suggested by Stock and Yogo (2005), suggesting that we are not likely to run into any weak instrument-related issues.

The HFE-IV estimates in Column 4 are never significantly different from either the HFE estimates which use observed participation (column 2) or the HFE estimates that use predicted participation (column 3). Qualitatively, the only estimate that differs somewhat from column 2 is the treatment effect for females in public housing which is just over one third of the size, though it remains positive and economically meaningful in size. The voucher housing coefficients suggest that each additional year of public housing increases age 26 earnings by .08 of a percentile for females and .17 of a percentile for males. The HFE-IV estimates therefore confirm that the early departure of children from subsidized households is not driving our main results.

B.3   *Heterogeneity by Subsidized Housing Participation in 1997*

While some of the MTO studies focus on effects for children who experienced subsidized housing at a young age, due to data limitations, this study examines only treatment during the teenage years. Our estimates of the impact of teenage exposure to subsidized housing could potentially be contaminated by the omission of pre-teenage exposure to subsidized housing. While we are unable to directly control for the amount of pre-teenage exposure, we can at least partially test the robustness of our results by controlling for whether the household was in subsidized housing at the start of the sample period. Households that begin the study period living in unsubsidized housing should be less likely to have pre-1997 differences in subsidized housing participation; instead of requiring one pre-1997 move, households would have to move twice before 1997: one move into subsidized housing and another back out of subsidized housing. In Table B3, we present results that add an interaction between each of the subsidized housing measures and whether the child's household participated in voucher or public housing in 1997, the first year of available data. We find that the effects for children who entered housing as teenagers are similar to our main results. In addition, the interactions for having received a housing subsidy in 1997 are very small and statistically insignificant. It therefore appears unlikely that pre-1997 differences in housing participation are biasing our main results.

B.4   Heterogeneity by Public Housing Characteristics

As much of the discussion of public housing in the popular media concerns high-rise projects primarily found in urban areas, we check whether the effect of living in a large public housing project is different from the overall results. That is, we allow for the effect of public housing participation to differ according to project size (population). To do so, we define person-weighted project size quartiles by considering all public housing projects over the period 1997-2005. On the basis of these quartiles, it was determined whether each individual in our sample who ever participated in public housing was also a resident of large public housing project (the top quartile). We then included a count of the number of years each teenager lived in a large public housing project in addition to the measures of housing voucher participation and general public housing participation included in previous specifications. The coefficient estimates from HFE specifications for these large public housing measures capture any differential effect that large public housing residence as a teenager has on adult earnings.

Table B4 presents these results. We note that the estimated coefficients on the housing voucher and measures are very similar to those from the more basic HFE specification, while the public housing coefficients imply slightly smaller effects. The results provide little evidence that

large projects are worse overall for individuals who reside in them as teenagers. In the pooled sample, large public housing projects do not have a differential effect on age 26 earnings relative to smaller housing projects for males or for females. Moving to the race/ethnicity specific results, there is weak evidence that especially large public housing projects are less beneficial for Hispanic males.

Similarly, it might be the case that being assigned to a public housing project where households earn relatively low annual incomes has a differential impact on adult outcomes. Such a differential effect could exist as a result of role model effects (e.g. teenagers observing adults who supply more labor could increase labor supply as an adult) or if project level social networks enable individuals to find a job or a higher paying job more easily. To test for heterogeneity by project-level household income, we compute the person-weighted median household adjusted income for each project year.[48] Next, we create year-specific quartiles and assign each project-year to a quartile. Teenagers in our sample are then matched to the public housing project and the associated household income quartile for each year they participated in public housing. We define the lowest-income public projects as those that fall into the bottom quartile with respect to median household annual adjusted income. This match is used to create a count of the number of years they resided there. These measures are then included, in addition to the housing voucher and general public housing measures, as discussed in the previous paragraph. Table B5 presents the household fixed effects estimates from these specifications. Again, estimates for voucher housing are similar to the main results, although in this case the resulting effect for general public housing is somewhat larger. Overall, in the first column, we find insignificant interactions for low-income projects for both girls and boys. The by race/ethnicity results are similarly uninformative. The benefit of public housing for Hispanic females disappears for those in low-income public housing projects, but White non-Hispanic males seem to benefit more from low-income public housing. Together, Tables B4 and B5 indicate that the most often described negative characteristics of public housing are not, on average, associated with worse adult outcomes.

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[48] HUD computes adjusted annual income on the basis of household-type (elderly, disabled, family), the number of dependents in the household and income net of certain child care, medical and disability expenses. We use this HUD-adjusted income to identify low-income projects.

Table B1: Subsidized Housing Residence and Adult Earnings
By Average Time Spent on a Waitlist

	All households Dose Treatment (Years Spent in Program)	
	<=9 Months Wait (1)	>9 Months Wait (2)
Voucher Housing	0.040***	0.053***
	(0.014)	(0.014)
Voucher Housing*Male	-0.012	-0.027**
	(0.011)	(0.011)
Public Housing	0.051***	0.050**
	(0.017)	(0.022)
Public*Male	-0.003	0.005
	(0.014)	(0.017)
Male	0.515***	0.352***
	(0.041)	(0.046)
Observations	611,000	562,000
	P-value: Treatment effects are equal below and above 9 months wait	
Females in Voucher Housing	0.494	
Females in Public Housing	0.961	
Males in Voucher Housing	0.917	
Males in Public Housing	0.803	

Notes:
Each column presents a household fixed effects estimate of HUD subsidized housing participation while a teenager on the inverse hyperbolic sine of total age 26 earnings. Average wait time for public housing and voucher assisted housing in a county is calculated as the weighted housing authority average of the mean days spent on a waitlist prior to admission each program. The weights used for each average are the number of teenagers observed in each housing authority-program type-county cell in the year 2000. The overall average county-level wait time is then the arithmetic mean of the public housing and voucher housing county-level average wait time. Counties are classified as having a wait of above nine months if this average is greater than 273 days and below nine months if it is less than or equal to 273 days. The bottom panel displays p-values from tests of whether the effect is the same in counties with long (>9 months) and short (<=9 months) wait times. Robust standard errors, clustered at the household level, are displayed under each estimate. *** p<0.01, ** p<0.05, * p<0.1.

Table B2: Subsidized Housing Residence and Adult Earnings
Predicting Observed Subsidized Housing Participation using the Head of Household in 2000

| | Dose Treatment (Years in Program) | | | |
| | OLS | HFE | HFE PRED | HFE IV |
	(1)	(2)	(3)	(4)
Voucher Housing	-0.667***	0.271***	0.258***	0.325***
	(0.028)	(0.062)	(0.088)	(0.115)
Voucher Housing*Male	-0.045	-0.173***	-0.195***	-0.224***
	(0.040)	(0.051)	(0.050)	(0.058)
Public Housing	-0.878***	0.237***	0.047	0.081
	(0.038)	(0.085)	(0.131)	(0.179)
Public Housing*Male	0.228***	0.062	0.087	0.094
	(0.055)	(0.069)	(0.072)	(0.080)
First Stage Estimates				
	Public Housing	Male*Public Housing	Voucher Housing	Male*Voucher Housing
Predicted Voucher Housing	-0.011***	-0.002***	0.762***	-0.051***
	(0.001)	(0.001)	(0.003)	(0.002)
Predicted Voucher Housing*Male	0.000	-0.008***	0.001	0.869***
	(0.000)	(0.000)	(0.002)	(0.002)
Predicted Public Housing	0.729***	-0.085***	-0.012***	0.001
	(0.006)	(0.004)	(0.002)	(0.001)
Predicted Public Housing*Male	-0.016***	0.897***	0.002***	-0.014***
	(0.003)	(0.003)	(0.001)	(0.001)
Kleinbergen-Paap rk Wald	4568.090			

Notes:
Number of observations = 1172000 rounded to the nearest thousand. Table presents only the coefficients on the housing subsidy measures and their interactions with a male indicator. In each column the percentile in the earnings distribution when age 26 is the dependent variable. Treatment is defined using a count of the number of years the individual participated in each program between the ages of 13 and 18. The sample is limited to teenagers from All households. See the main text for a more detailed description of the sample. Columns 1 and 2 of the top panel present OLS and HFE estimates. Column 3 defines participation using the observed subsidized housing participation of the head of household and the ages of household members rather than using the observed participation of each individual. Column 4 presents household fixed effects instrumental variables estimates using the predicted treatment based on the head of household participation and the individual's age in 2000 as instruments for observed participation. A full set of male by age fixed effects and male by household race fixed effects are included as controls. The bottom panel presents the first stage estimates corresponding to the four endogenous variables. Kleinbergen-Paap Wald statistic is also shown at the bottom of the table. Robust standard errors clustered at the household are displayed below each point estimate. *** p<0.01, ** p<0.05, * p<0.1.

Table B3: Treatment Effect Heterogeneity by Subsidized Housing Participation in 1997

	All households	
	No Interactions	HH in Subsidized Housing in 1997
	(1)	(2)
Voucher Housing	0.047***	0.045***
	(0.010)	(0.015)
Voucher Housing*Male	-0.021***	-0.017
	(0.008)	(0.013)
Public Housing	0.049***	0.053**
	(0.013)	(0.021)
Public*Male	0.002	0.015
	(0.011)	(0.018)
Voucher Housing*HH in Subsidized Housing in 1997		-0.001
		(0.020)
Voucher Housing*HH in Subsidized Housing in 1997*Male		0.003
		(0.019)
Public Housing*HH in Subsidized Housing in 1997		-0.011
		(0.028)
Public Housing*HH in Subsidized Housing in 1997*Male		-0.011
		(0.025)
Observations	1,172,000	1,172,000

Notes:
Table presents household fixed effects estimates of years of teenage participation in subsidized housing on the inverse hyperbolic sine of total age 26 earnings. Column 1 replicates the dose specification from the main results. See main text for a more detailed description of the sample. Column 2 additionally includes interactions between the number of teenage years spent in each housing program type and whether the teenager's household participated in subsidized housing in the first available year of administrative data (1997). Robust standard errors, clustered at the household level, are displayed under each estimate. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table B4: Subsidized Housing Residence and Adult Earnings
Differentiating Large Public Housing Projects

	Dose Treatment (Years spent in program)			
	All Households (1)	White Households (2)	Black Households (3)	Hispanic Households (4)
Voucher Housing	0.047***	0.006	0.070***	0.045**
	(0.010)	(0.020)	(0.014)	(0.021)
Voucher Housing*Male	-0.021***	0.029*	-0.039***	-0.015
	(0.008)	(0.015)	(0.012)	(0.016)
Public Housing	0.041***	0.003	0.050**	0.042
	(0.015)	(0.036)	(0.020)	(0.034)
Public Housing*Male	0.016	0.069**	-0.006	0.030
	(0.013)	(0.029)	(0.017)	(0.027)
Public Housing*Large Public Housing	0.030	-0.033	0.020	0.071
	(0.030)	(0.129)	(0.040)	(0.056)
Public Housing*Large Public Housing*Male	-0.049*	-0.059	0.004	-0.125***
	(0.025)	(0.121)	(0.034)	(0.046)
Observations	1,172,000	464,000	336,000	279,000
Mean of dependent variable	6.981	7.101	6.444	7.352

Notes:
Each column displays a household fixed effects estimate of the impact of teenage participation in subsidized housing on the inverse hyperbolic sine of total age 26 earnings. Each type of subsidized housing participation is defined using a count of the number of years the individual participated in that program while between the ages of 13 and 18. See the main text for a more detailed description of the sample. Large public housing projects are defined as projects in the top quartile of total population over the 1997 to 2005 period. A full set of male by age fixed effects and male by household race fixed effects are included as controls. Robust standard errors clustered at the household are displayed below each point estimate. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table B5: Subsidized Housing Residence and Adult Earnings
Differentiating Low-Income Public Housing Projects

	Dose Treatment (Years spent in program)			
	All Households (1)	White Households (2)	Black Households (3)	Hispanic Households (4)
Voucher Housing	0.047***	0.006	0.070***	0.045**
	(0.010)	(0.020)	(0.014)	(0.021)
Voucher Housing*Male	-0.021***	0.029*	-0.039***	-0.015
	(0.008)	(0.015)	(0.012)	(0.016)
Public Housing	0.051***	-0.007	0.045**	0.085***
	(0.015)	(0.038)	(0.020)	(0.029)
Public Housing*Male	-0.005	0.042	0.012	-0.055**
	(0.012)	(0.031)	(0.017)	(0.022)
Public Housing*Low Income Public Housing	-0.010	0.031	0.041	-0.180**
	(0.034)	(0.102)	(0.041)	(0.087)
Public Housing*Low Income Public Housing*Male	0.038	0.180*	-0.066*	0.391***
	(0.031)	(0.103)	(0.037)	(0.079)
Observations	1,172,000	464,000	336,000	279,000
Mean of dependent variable	6.981	7.101	6.444	7.352

Notes:
Each column displays a household fixed effects estimate of the impact of teenage participation in subsidized housing on the inverse hyperbolic sine of total age 26 earnings. Each type of subsidized housing participation is defined using a count of the number of years the individual participated in that program while between the ages of 13 and 18. See the main text for a more detailed description of the sample. Low income public housing projects are defined as projects in the bottom quartile of person-weighted median household income over the 1997 to 2005 period. A full set of male by age fixed effects and male by household race fixed effects are included as controls. Robust standard errors clustered at the household are displayed below each point estimate. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

APPENDIX C. ADDITIONAL TABLES

Table C1: The Effect of Teenage Residence in HUD-Subsidized Housing on Age 26 Earnings
White non-Hispanic Households Only

| | Dose Treatment (Years Spent in Program) | | | | |
| | OLS | HFE | HFE EC | HFE BGC | HFE LC |
	(1)	(2)	(3)	(4)	(5)
Voucher Housing	-0.149***	0.006	0.004	0.008	0.006
	(0.008)	(0.020)	(0.020)	(0.020)	(0.020)
Voucher Housing*Male	0.034***	0.029*	0.032**	0.024	0.028*
	(0.012)	(0.015)	(0.015)	(0.015)	(0.015)
Public Housing	-0.161***	-0.000	-0.001	0.006	0.005
	(0.016)	(0.035)	(0.035)	(0.035)	(0.035)
Public Housing*Male	0.063***	0.065**	0.068**	0.054*	0.057**
	(0.022)	(0.028)	(0.028)	(0.028)	(0.028)
IHS Average Parents' Earnings			0.027		0.026
			(0.020)		(0.020)
IHS Average Parents' Earnings*Male			0.016***		0.018***
			(0.005)		(0.005)
Average Block Group % Poverty				-3.135***	-3.160***
				(0.621)	(0.622)
Average Block Group % Poverty*Male				3.235***	3.302***
				(0.386)	(0.387)
Demographic Controls	yes	yes	yes	yes	yes
Household Fixed Effects	no	yes	yes	yes	yes

Notes:
Number of observations 464000 rounded to the nearest thousand. See text for a detailed sample description. The dependent variable in each column is the inverse hyperbolic sine of total age 26 earnings. Column 1 presents ordinary least squares (OLS) estimates. All remaining columns present household fixed effects (HFE) estimates. All columns include controls for male by age and male by household race. Column 3 (HFE EC) also includes a control for the inverse hyperbolic sine (IHS) of parents' average annual earnings while a teenager and its interaction with whether the child was male. Column 4 (HFE BGC) includes a control for the average block group percent poverty in the block group of residence between the ages of 13 and 18 and its interaction with a male indicator. Column 5 (HFE LC) includes both the parents' earnings and block group percent poverty controls, along with interactions with the male indicator. In cases where the teenager's block group of residence is unknown, the average block group percent poverty in their county of residence is used. Race and ethnicity is assigned at the household level using information from the 2000 Census. Subsidized housing participation is defined using a count of the number of years each individual ever lived in each type of subsidized housing while a teenager. Robust standard errors clustered at the household are displayed below each point estimate. *** p<0.01, ** p<0.05, * p<0.1. Based on the authors' tabulations from matched Census 2000-LEHD-PIC file.

Table C2: The Effect of Teenage Residence in HUD-Subsidized Housing on Age 26 Earnings
Black non-Hispanic Households Only

	OLS (1)	HFE (2)	HFE EC (3)	HFE BGC (4)	HFE LC (5)
			Dose Treatment (Years Spent in Program)		
Voucher Housing	-0.041***	0.070***	0.070***	0.068***	0.068***
	(0.006)	(0.014)	(0.014)	(0.014)	(0.014)
Voucher Housing*Male	-0.032***	-0.039***	-0.041***	-0.036***	-0.037***
	(0.009)	(0.012)	(0.012)	(0.012)	(0.012)
Public Housing	-0.067***	0.055***	0.057***	0.059***	0.059***
	(0.007)	(0.017)	(0.017)	(0.017)	(0.017)
Public Housing*Male	0.005	-0.005	-0.007	-0.011	-0.012
	(0.011)	(0.014)	(0.014)	(0.015)	(0.015)
IHS Average Parents' Earnings			0.064**		0.062**
			(0.026)		(0.026)
IHS Average Parents' Earnings*Male			-0.021***		-0.017***
			(0.006)		(0.006)
Average Block Group % Poverty				-1.627***	-1.550***
				(0.542)	(0.543)
Average Block Group % Poverty*Male				1.496***	1.340***
				(0.320)	(0.325)
Demographic Controls	yes	yes	yes	yes	yes
Household Fixed Effects	no	yes	yes	yes	yes

Notes:
Number of observations 336000 rounded to the nearest thousand. See text for a detailed sample description. The dependent variable in each column is the inverse hyperbolic sine of total age 26 earnings. Column 1 presents ordinary least squares (OLS) estimates. All remaining columns present household fixed effects (HFE) estimates. All columns include controls for male by age and male by household race. Column 3 (HFE EC) also includes a control for the inverse hyperbolic sine (IHS) of parents' average annual earnings while a teenager and its interaction with whether the child was male. Column 4 (HFE BGC) includes a control for the average block group percent poverty in the block group of residence between the ages of 13 and 18 and its interaction with a male indicator. Column 5 (HFE LC) includes both the parents' earnings and block group percent poverty controls, along with interactions with the male indicator. In cases where the teenager's block group of residence is unknown, the average block group percent poverty in their county of residence is used. Race and ethnicity is assigned at the household level using information from the 2000 Census. Subsidized housing participation is defined using a count of the number of years each individual ever lived in each type of subsidized housing while a teenager. Robust standard errors clustered at the household are displayed below each point estimate. *** p<0.01, ** p<0.05, * p<0.1. Based on the authors' tabulations from matched Census 2000-LEHD-PIC file.

Table C3: The Effect of Teenage Residence in HUD-Subsidized Housing on Age 26 Earnings
Hispanic Households Only

| | Dose Treatment (Years Spent in Program) | | | | |
	OLS (1)	HFE (2)	HFE EC (3)	HFE BGC (4)	HFE LC (5)
Voucher Housing	-0.068***	0.045**	0.042**	0.045**	0.043**
	(0.009)	(0.021)	(0.021)	(0.021)	(0.021)
Voucher Housing*Male	-0.014	-0.015	-0.011	-0.017	-0.012
	(0.012)	(0.016)	(0.016)	(0.016)	(0.016)
Public Housing	-0.085***	0.071***	0.068**	0.076***	0.074***
	(0.011)	(0.027)	(0.027)	(0.028)	(0.028)
Public Housing*Male	0.003	-0.020	-0.015	-0.030	-0.025
	(0.016)	(0.021)	(0.021)	(0.021)	(0.021)
IHS Average Parents' Earnings			0.010		0.010
			(0.025)		(0.025)
IHS Average Parents' Earnings*Male			0.020***		0.021***
			(0.006)		(0.006)
Average Block Group % Poverty				-0.854	-0.884
				(0.575)	(0.575)
Average Block Group % Poverty*Male				0.924***	0.995***
				(0.315)	(0.315)
Demographic Controls	yes	yes	yes	yes	yes
Household Fixed Effects	no	yes	yes	yes	yes

Notes:
Number of observations 279000 rounded to the nearest thousand. See text for a detailed sample description. The dependent variable in each column is the inverse hyperbolic sine of total age 26 earnings. Column 1 presents ordinary least squares (OLS) estimates. All remaining columns present household fixed effects (HFE) estimates. All columns include controls for male by age and male by household race. Column 3 (HFE EC) also includes a control for the inverse hyperbolic sine (IHS) of parents' average annual earnings while a teenager and its interaction with whether the child was male. Column 4 (HFE BGC) includes a control for the average block group percent poverty in the block group of residence between the ages of 13 and 18 and its interaction with a male indicator. Column 5 (HFE LC) includes both the parents' earnings and block group percent poverty controls, along with interactions with the male indicator. In cases where the teenager's block group of residence is unknown, the average block group percent poverty in their county of residence is used. Race and ethnicity is assigned at the household level using information from the 2000 Census. Subsidized housing participation is defined using a count of the number of years each individual ever lived in each type of subsidized housing while a teenager. Robust standard errors clustered at the household are displayed below each point estimate. *** p<0.01, ** p<0.05, * p<0.1. Based on the authors' tabulations from matched Census 2000-LEHD-PIC file.