



Estimated Downstream Cost of Evictions in Harris County

Analysis by the Kinder Institute for Urban Research, September 2020

Summary

This memorandum serves to report estimates of the downstream effects of eviction based on the “Cost of Eviction Calculator” created by the Innovation for Justice Program (“i4J”), University of Arizona James E. Rogers College of Law. Three estimates are included here, first the estimate of the i4J calculator; second, a base calculator adjusted from the i4J calculator with local numbers; and, third, a “base plus” model that uses the same calculations as the base calculator but adjusts for unknown outcomes in eviction filings in Harris County.

The calculations offered are estimates intended to help frame the impact of evictions not just for individual households, but also for the public jurisdictions such as Harris County and the City of Houston that deal with the longer-term fiscal impacts. Inputs for the final numbers are drawn from local sources when available and, if local information is not available, from national sources identified in i4J work. As such, the costs displayed here present a range of possible outcomes. The estimates are limited by the static inputs, and future work could refine these inputs as needed or for measuring programmatic impact. It also represents only a limited set of the easily quantifiable results of eviction.

As an example of how the inputs impact the final numbers, the calculations in this memorandum estimate that between 8,159 and 8,786 juveniles experiencing homelessness will commit a delinquent act within their lifetime, which adds significantly to the cost of child delinquency. This number is derived from the research that underpins the i4J calculator and is a national rate at which children experiencing homelessness commit an act of delinquency resulting in detention, jail, or prison, in their lifetime. This range is derived by multiplying the number of households evicted in Harris County (as drawn from Harris County Justice of the Peace records on eviction filings), times the percent of households with children, the percent of evicted households which will use emergency shelter services, the average number of children aged 10-17 per household, and the national rate of children experiencing homelessness committing acts of delinquency resulting in detention, jail, or prison¹ (44%). There is no equivalent local number available that

¹ The national rate comes from the US Department of Health and Human Services "Administration for Children and Families, Family and Youth Services Bureau. Street Outreach Program for Homeless Youth."

we can include with confidence, but this is likely one input that could have large discrepancies in different jurisdictions.

Cost of Eviction

Table 1 below, estimates the total cost of eviction by summing the cost of providing emergency shelter, inpatient medical care, emergency room care, providing child welfare services, and the cost of juvenile delinquency. To reiterate, the i4J estimate represents the estimate when we use their tool, as is. The “Base” represents calculations made with costs from local service providers, with adjustments to the calculator based upon our own understanding of medical and juvenile court processing in Harris County. The “Base” estimate could be considered more “accurate”, or at least better reflects costs from within Harris County. Both the “Base” and “i4J” total cost estimates use eviction data for Harris County Justice of the Peace courts (where evictions totaled 35,335). The “Base Plus” uses local inputs, yet also assumes that one quarter of “unknown” outcomes, in eviction filing court records, still effectively were evictions or similar disruptive displacements. Thus these outcomes are added to the total documented eviction count (therefore we assume 38,049 evictions).

Table 1: Cost of Eviction in Harris County

	i4J	Base	Base Plus
Total Cost	\$199,088,000	\$315,680,000	\$339,579,000
Cost of providing emergency shelter	\$120,210,000	\$120,210,000	\$129,443,000
Cost of providing inpatient medical care	\$13,912,000	\$22,131,000	\$23,831,000
Cost of providing emergency room care	\$36,188,000	\$36,188,000	\$38,967,000
Cost of providing child welfare services	\$4,527,000	\$4,527,000	\$4,527,000
Cost of juvenile delinquency	\$24,252,000	\$132,625,000	\$142,812,000

The difference between the three calculations is in the actual inputs into each calculator. Tables 2-4 shows the inputs used in each calculation.

The major differences between the i4J and the Base calculation is that the Base estimate uses annual average cost or annual median cost per person for inpatient medical costs and juvenile delinquency costs. The i4J calculation estimates this through the cost of one medical visit and one act of juvenile delinquency times the number of medical visits and cost of a single juvenile delinquency act, respectively. The Base Plus calculation adds 25% of the “unknown outcomes”

in eviction filings (see [here](#)), as these might have led to a disruptive event among households though is not reflected in the data. In the tables, we highlight the changes in indicators with purple.

Table 2: Inputs in the original i4J calculation

# of Evictions	35,335 households		
Household Size	2.88 persons per household		
Shelter Costs	25% needing shelter	\$75 cost of one stay	63 day stay per year
Inpatient Medical Costs	3% usage rate	\$2,604 cost of one visit	7 visits per year
Emergency Room Costs	18% usage rate	\$2,032 cost of one visit	4 visits per year
Child Welfare Costs	\$257,213,183 spent per year	11% covered locally	16% caused by "inadequate housing"
Child Delinquency Costs	38% of households w/children	0.84 children aged 10-17 in a household	44% of children experiencing homelessness committing an act of Juvenile Delinquency \$19,455 cost of one act

Table 3: Inputs in the base model adjusted from the i4J model

# of Evictions	35,335 households		
Household Size	2.88 persons per household		
Shelter Costs	25% needing shelter	\$75 cost of one stay	63 day stay per year
Inpatient Medical Costs	3% usage rate	\$28,996 average annual cost per person for mental health and hospital inpatient medical costs	
Emergency Room Costs	18% usage rate	\$2,032 cost of one visit	4 visits per year
Child Welfare Costs	\$257,213,183 spent per year	11% covered locally	16% caused by "inadequate housing"
Child Delinquency Costs	38% of households w/children	0.84 children aged 10-17 in a household	\$46,813 median annual juvenile probation cost including residential supervision, community supervision, and court and intake costs

Table 4: Inputs in the base plus model

# of Evictions	38,049 households plus 25% of unknown outcomes		
Household Size	2.88 persons per household		
Shelter Costs	25% needing shelter	\$75 cost of one stay	63 day stay per year
Inpatient Medical Costs	3% usage rate	\$28,996 average annual cost per person for mental health and hospital inpatient medical costs	
Emergency Room Costs	18% usage rate	\$2,032 cost of one visit	4 visits per year
Child Welfare Costs	\$257,213,183 spent per year	11% covered locally	16% caused by "inadequate housing"
Child Delinquency Costs	38% of households w/children	0.84 children aged 10-17 in a household	\$46,813 median annual juvenile probation cost including residential supervision, community supervision, and court and intake costs

Cost breakdown

This section breaks down how each cost estimate was sourced and calculated. There are three key indicators that are part of most cost estimates, this includes:

- The **number of evicted households** in Harris county was provided by January Advisors for 2019 and 2020 from their collection of Harris County Justice of the Peace Court Records.
- The **number of people per household** comes from the ACS 5-year estimate (2014-2018) for Harris County, Texas.
- The **percentage of annual evictions that result in displacement leading to shelter needs**. This number is sourced from an estimate in New York City².

For the Base Plus estimate we add 25% more evicted households to the total number to account for those evictions that likely led to a disruption for a household but that were a part of eviction filings labeled “unknown outcome.” We do not know what happened in these cases, but it is reasonable to assume the eviction filing led to a disruptive emergency move. We chose 25% as an arbitrary threshold and recognize the actual number of disruptive events may be more or less and were interested in seeing how much costs would be affected with a 25% impact.

² Estimate from New York City. Source: the Robin Hood Foundation. https://robinhoodorg-production.s3.amazonaws.com/uploads/2017/04/Metrics-Equations-for-Website_Sept-2014.pdf

Shelter Costs

The total shelter cost is calculated by multiplying the total number of evictions, number of people per household, the percentage of evictions leading in displacement leading shelter needs, the cost of a one-day stay in a homeless shelter, and the average number of days per year.

Multiplying the total number of evictions, the number of people per household, and the percent needing emergency shelter, yields 25,441 people in an emergency shelter. The cost per day includes both shelter and food costs, which would be just under \$2 million per day for this population. The average number of days stayed in an emergency shelter is 63 days, however, the median stay is 27 days. This means half of the population currently served has a shorter stay, while some of the people in the shelter, including families, have a much longer stay. Using the median number of days, the total shelter cost for the i4J and Base case is \$51.5 million and \$55.5 million for the Base Plus case, both, less than half the current estimated cost. However, we maintain the average cost in the table since it is more representative of a longer family stay than a single person that may have multiple short bouts at a shelter in a year.

Table 5: Cost of providing shelter

	# of households evicted	# of people per household	% needing shelter	cost of a one-day stay ³	# of days stayed per year ⁴	Total Shelter Cost
i4J	35,335	2.88	25%	\$75	63	\$120,210,000
Base	35,335	2.88	25%	\$75	63	\$120,210,000
Base Plus	38,049	2.88	25%	\$75	63	\$129,443,000

³ Provided by the Coalition for the Homeless. This estimate includes shelter and food costs.

⁴ Provided by the Coalition for the Homeless. The average stay a homeless person utilizes an emergency shelter is 63 days while the median is 27 days.

Inpatient Medical Care Costs

Inpatient medical costs are calculated by multiplying the total number of households evicted, the number of people per household, the percentage of eviction leading to shelter, the usage rate of people utilizing inpatient hospital services, the average cost of an inpatient visit in Texas, and the average number of times a person experiencing homelessness uses inpatient services in one year.

In our base and base plus calculations, we replace the cost of one visit and the number of visits per year with the average annual cost per person for hospital inpatient services (\$19,794) and the average annual cost per person for mental health inpatient costs (\$9,232).

Table 6: Cost of providing medical care

	# of households evicted	# of people per household	% needing shelter	Usage rate ⁵	cost of one visit	# of visits per year	Total Inpatient Medical Cost
i4J	35,335	2.88	25%	3%	\$2,604 ⁶	7 ⁷	\$13,912,000
Base*	35,335	2.88	25%	3%		\$28,996 ⁸	\$22,131,000
Base Plus*	38,049	2.88	25%	3%		\$28,996	\$23,831,000

⁵ Provided by the Patient Care Intervention Center for Harris County.

⁶ Kaiser Family Foundation estimate for the average in Texas. <https://www.kff.org/health-costs/state-indicator/expenses-per-inpatient-day/?currentTimeframe=0&selectedRows=%7B%22states%22:%7B%22texas%22:%7B%7D%7D%7D&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>

⁷ Estimate from Boston: Bharel, Monica, et. al. "Health Care Utilization Patterns of Homeless Individuals in Boston: Preparing for Medicaid Expansion Under the Affordable Care Act." December 2013

⁸ Provided in memorandum from Harris County Commissioners Court Analyst Office on Homeless Costs

Emergency Room Care Costs

Emergency room care costs are calculated by multiplying across the total number of households evicted, the number of people per household, the percentage of evictions leading to emergency room services, the average cost of one emergency room visit, and the average number of emergency room visits per year for a person experiencing homelessness.

Table 7: Cost of providing emergency room care

	# of households evicted	# of people per household	% needing shelter	Usage rate ⁹	cost of one visit ¹⁰	# of visits per year ¹¹	Total ER Cost
i4J	35,335	2.88	25%	17.5%	\$2,032	4	\$36,188,000
Base	35,335	2.88	25%	17.5%	\$2,032	4	\$36,188,000
Base Plus	38,049	2.88	25%	17.5%	\$2,032	4	\$38,967,000

⁹ Provided by the Patient Care Intervention Center for Harris County, Texas.

¹⁰ Sourced as a national estimate from the UnitedHealth Group.

<https://www.unitedhealthgroup.com/content/dam/UHG/PDF/2019/UHG-Avoidable-ED-Visits.pdf>

¹¹ Provided by the Patient Care Intervention Center for Harris County, Texas.

Child Welfare Costs

Child welfare costs are calculated by multiplying the total spending on child welfare in one year (federal, state, and local expenditures), the average percent a county is responsible for, and the percentage of children encountering the child welfare system due to “inadequate housing.” Inadequate housing is defined as “homelessness as well as substandard, overcrowded, unsafe, or otherwise inadequate housing facilities that are not appropriate for parents and their children to reside in together.”¹²

Table 8: Cost of providing child welfare services

	Total spending ¹³	% county is responsible for ¹⁴	% from "inadequate housing" ¹⁵	Total Child Welfare Cost
i4J	\$257,213,183	11%	16%	\$4,527,000
Base	\$257,213,183	11%	16%	\$4,527,000
Base Plus	\$257,213,183	11%	16%	\$4,527,000

¹² Fowler, Patrick J., David B. Henry, Michael Schoeny, John Landsverk, Dina Chavira, and Jeremy J. Taylor. "Inadequate housing among families under investigation for child abuse and neglect: Prevalence from a national probability sample." *American journal of community psychology* 52, no. 1-2 (2013): 106-114. <https://pubmed.ncbi.nlm.nih.gov/23702790/>

¹³ Estimated by taking the the total state-level spending for Texas in a Child Trends report and multiplying it by the proportion of Harris county to Texas population in the ACS 2018 5-year (2014-2018) estimate. https://www.childtrends.org/wp-content/uploads/2018/12/CWFSReportSFY2016_ChildTrends_December2018.pdf

¹⁴ Sourced as the average local/county share in a 2018 Child Trends report. https://www.childtrends.org/wp-content/uploads/2018/12/CWFSReportSFY2016_ChildTrends_December2018.pdf

¹⁵ Fowler, Patrick J., David B. Henry, Michael Schoeny, John Landsverk, Dina Chavira, and Jeremy J. Taylor. "Inadequate housing among families under investigation for child abuse and neglect: Prevalence from a national probability sample." *American journal of community psychology* 52, no. 1-2 (2013): 106-114. <https://pubmed.ncbi.nlm.nih.gov/23702790/>

Child Delinquency Costs

The cost of child delinquency services is calculated by multiplying the total number of evicted households, the percentage of households with children, the percentage of households needing emergency shelter, the average number of children aged 10 to 17 in households, the percentage of children experiencing homelessness committing an act of juvenile delinquency resulting in juvenile detention, jail, or prison, and the cost of an act of juvenile delinquency.

The base and base plus calculations replace the percentage of children experiencing homelessness committing acts of delinquency and the cost of a single act of delinquency with the annual juvenile probation median cost per person. The juvenile probation cost in Harris county includes residential supervision, community supervision, and court and intake costs. We use the median annual cost per person, rather than the average cost (\$54,870), because there are only a few children that skew this cost upwards with higher residential supervision and court and intake costs. Contrary to the cost of providing shelter, we believe the median cost is more representative of the downstream child delinquency cost of eviction.

Table 9: Cost of providing juvenile services

	# of households evicted	% households with children ¹⁶	% needing shelter	# of children (10 to 17 years old) ¹⁷	% committing act of juvenile delinquency	cost of one act	Total Delinquency Cost
i4J	35,335	38.18%	25%	0.84	44% ¹⁸	\$19,455 ¹⁹	\$24,252,000
Base*	35,335	38.18%	25%	0.84		\$46,813 ²⁰	\$132,625,000
Base Plus*	38,049	38.18%	25%	0.84		\$46,813	\$142,812,000

¹⁶ ACS 2018 5-year estimate (2014-2018) for the number of families with children in Harris county, Texas.

¹⁷ We take the 2000 census estimate for the number of children per household in Harris county, Texas and multiply this by the 2018 ACS 5-year estimate for 10 to 17 year old children living in a household (44%).

¹⁸ US Department of Health and Human Services. "Administration for Children and Families, Family and Youth Services Bureau. Street Outreach Program for Homeless Youth."

¹⁹ Inflation adjusted estimate of:

Reynolds, Arthur J., Judy A. Temple, Dylan L. Robertson, and Emily A. Mann. "Age 21 cost-benefit analysis of the Title I Chicago child-parent centers." *Educational Evaluation and Policy Analysis* 24, no. 4 (2002): 267-303.

²⁰ Source from Harris County Commissioners Court Analyst Office memorandum on homeless costs.