MARS

MILWAUKEE AREA RENTERS STUDY

USER'S GUIDE

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MILWAUKEE AREA RENTERS STUDY

I. Introduction

Designed to collect new data related to housing, poverty, and urban life, the *Milwaukee Area Renters Study* (MARS) is an in-person survey of 1,086 households in Milwaukee. One person per household, usually an adult leaseholder, was interviewed. The MARS instrument was comprised of more than 250 unique items and administered in-person in English and Spanish. The University of Wisconsin Survey Center supervised data collection, which took place between 2009 and 2011.[1] The MARS sample was limited to renters.[2] Nationwide, the majority of low-income families live in rental housing, and most receive no federal housing assistance (Desmond 2015). Except in exceptional cities with very high housing costs, the rental population is comprised of some upper- and middle-class households who prefer renting and most of the cities' low-income households who are excluded both from public housing and homeownership.[3] To focus on urban renters in the private market, then, is to focus on the lived experience of most low-income families living in cities.[4] MARS was funded by the John D. and Catherine T. MacArthur Foundation, through its "How Housing Matters" initiative.

II. Purpose of the Study & Policy Needs

Despite a vast and rich literature on urban poverty, housing problems remain largely absent from much poverty research. Yet housing dynamics are just as central to our understanding of social inequality and everyday life in inner-city neighborhoods as are dynamics associated with families, crime, education, jobs, or welfare. "Housing problems," Jason DeParle (1996: 52) has written, "are far more central to the lives of the poor than a number of issues—immunizations,

school lunches—that have made recent headlines. The cost of shelter breaks the budget of low-income Americans, crowds them into violent ghettos, far from good jobs and schools—or both." This study was designed to help revitalize the sociology of housing and to restore housing dynamics to a position of prominence in the fields of social stratification, inequality, and urban life.

One aspect of housing that disproportionately affects low-income communities—eviction—exists as perhaps the most understudied process affecting the lives of the urban poor. This omission is disconcerting, not only because eviction has been linked to homelessness, job loss, and suicide (Burt 2001; Serby et al. 2006) and not only because the dearth of sociological research on evictions increasingly hampers the informed design of suitable policy interventions, but also because studies have found eviction to be a common occurrence in inner-city neighborhoods (Desmond 2012). Accordingly, the Milwaukee Area Renters Study (MARS) was designed to generate new data that will allow social scientists to determine if and how certain aspects of the low-income housing market—and eviction, in particular—affect a variety of social, psychological, and economic outcomes. A rigorous analysis of eviction's antecedents, consequences, and social ramifications advances our knowledge of urban poverty and low-income housing and is fundamental to developing effective policy initiatives. Accordingly, MARS was designed to gather data that enables social scientists to determine if eviction (and other low-income housing dynamics) affects a variety of outcomes organized under five rubrics: residential stability, poverty, health, community, and intimate life.

MARS was designed to respond to three (3) critical policy needs. First, it was designed to respond to the need to identify the major *causes* of eviction. Without sound empirical evidence of the primary causes of eviction, anti-eviction policies are grasping their way in the

dark. Because this study will identify the primary causes of eviction, it will inform eviction prevention policies, shedding light on precisely where and how to intervene. This study, additionally, responds to the need to understand the *prevalence* and *consequences* of eviction. Because we know neither the frequency nor the consequences of evictions in low-income urban neighborhoods, we are at a loss when attempting to assign importance to anti-eviction policies vis-à-vis other policy priorities. How big of a problem is eviction? Should municipalities and community organizations devote more attention (and money) to preventing eviction or should they focus on other matters? The MARS study was designed to provide insight into these questions by offering an accurate estimate of the frequency of (formal *and* informal) evictions as well as an assessment of the degree to which eviction brings about a variety of negative social outcomes. This research, then, not only will inform current eviction prevention policies, but it will also underscore the need for policymakers to focus their attention on eviction, treating it as an important social problem implicated in the reproduction of urban poverty, homelessness, and a host of other negative outcomes.

Second, this study was designed to respond to the need to document and eradicate housing discrimination. Since the passage of the *Fair Housing Act* in 1968, policymakers have been concerned primarily with discrimination when it comes to buying or renting housing. Yet they have virtually ignored the degree to which discrimination influences the eviction decision. Our efforts to monitor and reduce housing discrimination, in other words, have been almost wholly concentrated on *getting in*; we have overlooked, meanwhile, discrimination involved in the process of *getting (put) out*. This study is the first of its kind to examine if protected groups are evicted at higher rates, net of other important factors. If this study produces evidence of discrimination in the eviction process, then the policy implication would be to expand equal

opportunity programs to prevent certain classes of renters from being disproportionately targeted for eviction. To fully monitor discrimination, then, policymakers need to focus not only on the front end of the housing process (the freedom to *obtain* housing anywhere) but also on the back end (the freedom to *maintain* housing anywhere).

Third, MARS was designed to respond to the need to understand how housing dynamics are implicated in the reproduction of urban poverty and other social problems. Educational inequality and underachievement are problems that cannot be solved in the school alone. Health disparities must be addressed beyond the antiseptic walls of the hospital. This study was designed to draw connections between housing problems and a variety of non-housing related outcomes. In particular, it seeks to identify some ways in which housing dynamics perpetuate urban poverty and, in so doing, will inform anti-poverty initiatives. These data will allow policy researchers to identify possible ways in which we can improve citizens' quality of life—their health, education, economic stability, civic engagement, and so forth—by centering efforts on housing. By pulling housing back to the center of urban policy analysis—by generating evidence of the ways in which low-income housing dynamics (and eviction, in particular) are implicated in the reproduction of urban poverty, racial inequality, health disparities, community disorganization, relational instability, and so forth—this study hopes to elevate housing issues to a more prominent position on the national agenda.

III. Sample Design

Dr. Charles Palit (Survey Statistician, University of Wisconsin-Madison) designed the MARS sample.

Setting. In its socioeconomic profile, Milwaukee is a fairly typical Midwestern city, one

marked by a steady erosion of economic prosperity since the 1970s, owing mainly to the flight of manufacturing jobs and the rise of racially segregated neighborhoods. Milwaukee's racial composition, population size, and unemployment rate is similar to those of many other midsize American cities, although its racial segregation is more acute than most. Just over half of Milwaukee's housing units (52%) are occupied by renters, similar to the proportions of Chicago, Houston, Dallas, San Diego, Columbus, and Baltimore (National Multi Housing Council 2009). In terms of median rent, Milwaukee County falls in the most expensive third of the country, ranking 1,420th out of 4,763 counties in the United States and Puerto Rico. Cities with similar rent distributions include Portland, OR; Charlotte; Gary; and Baton Rouge (U.S. Department of Housing and Urban Development 2009). Renter protections in Milwaukee are fairly typical. Cities with a stalwart tradition of tenant unionizing and an economically-diverse rental population—e.g., New York, Boston—tend to boast of toothier tenant protections than those, like Milwaukee, in which most middle- and upper-class households own their home (Manheim 1989).

Table A1 (in the appendix) displays economic and demographic information for the fifty most populous cities in the United States, Milwaukee ranking 30th on the list. Milwaukee's median household income is lower than other large cities' ($35,851 vs. the fifty-city median of $47,425). Several Rust Belt cities (e.g., Cleveland, Baltimore, Detroit, Philadelphia, Indianapolis) as well as Southern and Southwestern cities (e.g., Miami, Memphis, El Paso, Tucson, Tulsa) have similar median household incomes. The percentage of adults in Milwaukee who are 25 years or older and have at least a high school education (81%) is comparable to the fifty-city median of 84%. With respect to racial demographics, Milwaukee has a smaller percentage of white residents (45% vs. the fifty-city median of 59%), a larger percentage of

black residents (40% vs. 19%), and a relatively equal percentage of Hispanic residents (17%). Other major cities—e.g., Chicago, Atlanta, Charlotte, Washington, DC—have a similar racial and ethnic makeup.

Power Analysis. The data were conceived as analyzable through two conceptual frameworks: (1) a finite population framework for estimating the characteristics of the specific finite population sampled and (2) a super-population framework. For the finite population framework, assuming a design effect of D = 2 to account for the loss of precision in a clustered sample design, a sample size of N = 1,000 was found to be able to detect an eviction rate as small as 10% in the population at the 5% level of statistical significance, CI_{95}[.08; .12]. An analysis of Milwaukee County eviction records from 2003 to 2007 (Desmond 2012) found that in high-poverty neighborhoods, where more than 40% of the population lived at or below 150% of the poverty line, 9.9% of those living in renter-occupied households were evicted each year. This figure almost certainly underestimates the full extent of evictions, as it is based only on formal, court-ordered evictions. By surveying the city's tenants, asking survey questions that document both formal and informal evictions, and oversampling recently evicted tenants, the MARS in-sample eviction rate was expected to exceed 10%.

Analyses of the difference between evicted households and non-evicted households for the most part will be executed using a super-population framework, where the target sample size (1,000) was expected to yield statistically reliable findings. To take one possible social outcome of eviction, sensitivity tests suggest that a sample size of N = 1,000 will be adequate to produce reasonably good estimates of the effect of evictions on family stability (see Figure 1). Estimates of the differences in percentage effects between evicted households and non-evicted households generally would have a confidence interval of less than plus or minus 4%. (The actual size of the

confidence interval would vary with the percentage for the effect in the pooled sample under the null hypothesis.) That is, assuming that the incidence of family stability in the real population is somewhere between 30 and 50%, a percent difference in family stability between evicted and non-evicted respondents that exceeds 4% will be detected at the .05 significance level. If the incidence of family stability in the real population falls either below or above the 30 to 50% range, the sample will be able to detect at the .05 significance level percent differences in family stability smaller than 4%. (The figure below shows the behavior of the confidence interval in more detail.) Accordingly, to be well powered to detect meaningful statistical effects, the MARS sample size goal began as N = 1,000.

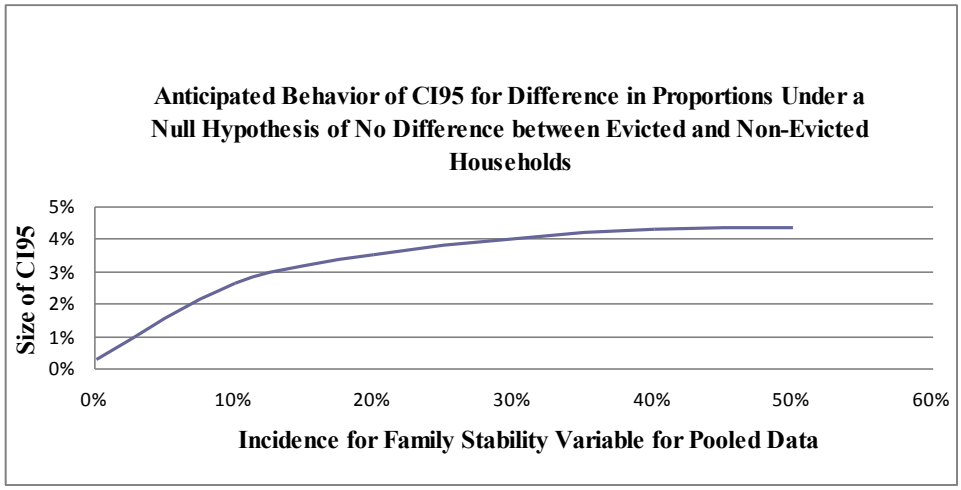


Figure 1. Power analysis to determine MARS sample size.

Sample and Neighborhood Quality. Households were selected through multi-stage stratified sampling. Drawing on Census data, Milwaukee block groups were sorted into three strata based on racial composition. Block groups were classified as white, black, or Hispanic if at least two-thirds of their residents were identified as such.[5] Then, each of these strata was subdivided into high- and moderate-poverty census block groups based on the overall income distribution of each racial or ethnic group in the city.[6] Additionally, a probability score was

assigned to each block based on the perceived likelihood that the block contained persons who had been evicted in the previous two years. We derived this score by drawing on court records and mapping evictions that occurred in Milwaukee in years prior to the survey being fielded.

Blocks from within each of these six strata (which were based on block group boundaries, the smallest geographic unit for which income data was available) were randomly selected. When a block was selected into the sample, files were ordered from Genesys Inc., which provided up-to-date postal route address lists. Interviewers took these lists and visited every household in the selected blocks, saturating the targeted areas. Sampled areas were put into the field systematically. That is, as opposed to fielding all selected blocks at once, the Survey Center began by strategically fielding the selected blocks it expected would produce the highest yield of interviews with the types of respondents most valuable to the study's goals. Once interviewers saturated those blocks, they moved on to additional blocks, while the Survey Center monitored the yields as they went.

Field interviewers conducted on-the-spot listing of household dwellings to account for all households in a selected block, so as to complete the sample frame. Because the sample is limited to renting households, the majority of blocks selected into the sample (being low-income areas) had relatively high rental densities[7], and interviewers screened out all individuals who lived in owner-occupied dwellings.

Interviewers visited every household in the selected block, saturating the targeted areas (see Figure 2). To focus on renting households, interviewers screened out owner-occupied dwellings. This sampling strategy resulted in renting households from across the city being included in the study, including those in low-poverty and racially integrated blocks. The MARS study drew from 168 of 591 unique block groups, representing 28% of Milwaukee

neighborhoods. Renting households from across Milwaukee were included in the MARS sample. Plotting the location of households that participated in the study, Figure 2 shows that households from multiple parts of the city, and located in neighborhoods with widely varying amounts of disadvantage, were sampled.

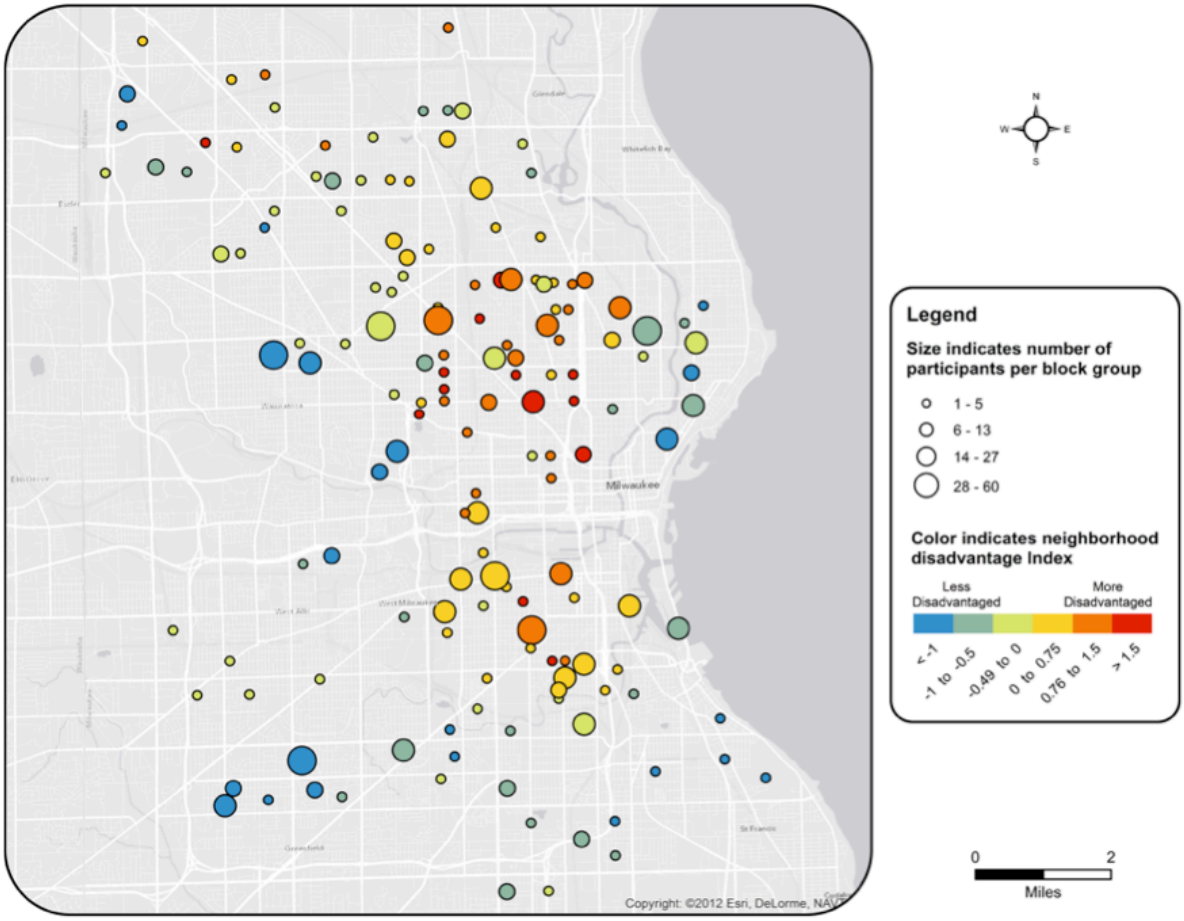


Figure 2. Location and neighborhood disadvantage of households that participated in the *Milwaukee Area Renters Study*. We created a neighborhood disadvantage scale via factor analysis to measure neighborhood quality, loading seven neighborhood characteristics onto this single scale: median household income, violent crime rate, and the percentages of families below the poverty line, of the population under 18, of residents with less than a high school education, of residents receiving public assistance, and of vacant housing units. The scale is standardized within our sample with a zero mean and a unit standard deviation (see Desmond and An 2015).

As shown in Figure 3, there is considerable variation in neighborhood disadvantage within the MARS sample. In a weighted sample, our standardized neighborhood disadvantage

measure varies from -1.57 to 2.9, a range of 5.7 standard deviation (mean = .79, sd = -.61).

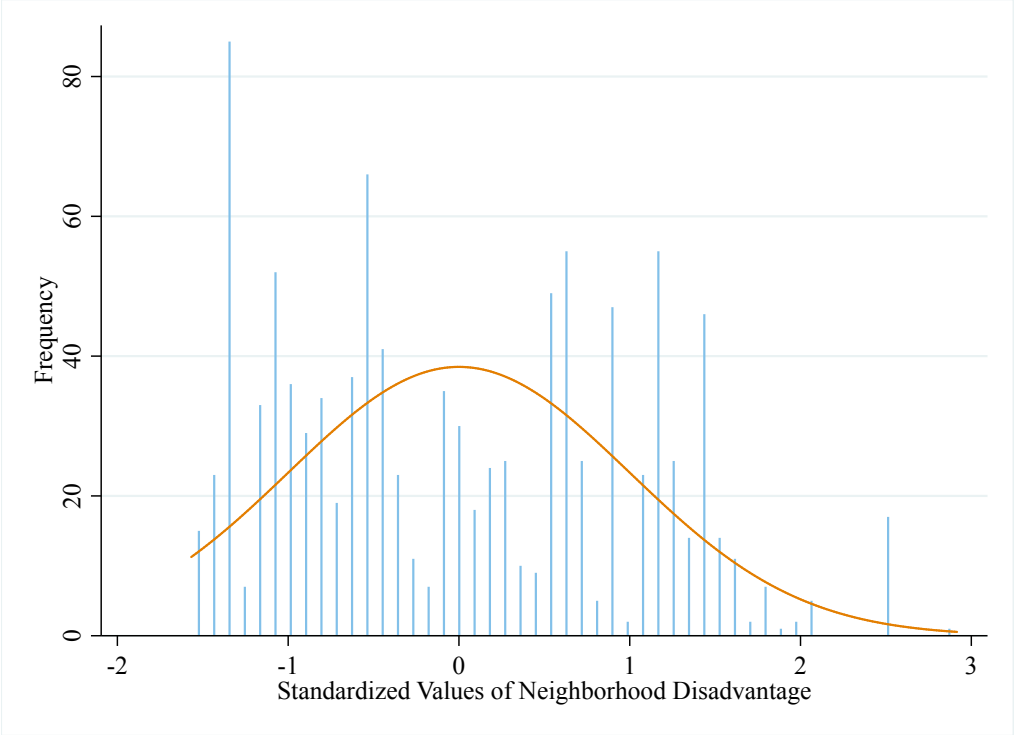


Figure 3. Distribution of neighborhood disadvantage within the MARS sample (N = 1,075).

IV. Mode of Interviewing, Fielded Cases, and Weighting

To bolster response rate and data quality, surveys were administered via in-person interviews carried out by trained interviewers at tenants' place of residence. During the first phase of MARS, interviewers recorded respondents' answers on paper instruments. Later, these instruments were entered into a computer program. During the second phase of MARS, interviewers employed a *Computer-Assisted Personal Interviewing* (CAPI) technology: entering respondents' answers directly into a laptop computer.

All interviewers (eight [8] in all) were recruited, trained, certified, and supervised by the University of Wisconsin Survey Center. Interviewers underwent three full days of training on MARS, during which they studied the introductory script and practiced interview questions. A

week before interviewers visited selected blocks, all households in those blocks received an advance mailing (see appendix), which briefly explained the study's aims and announced interviewers' upcoming visits. It is likely that distributing an advance letter to prospective respondents improved the survey's response rate and allowed interviewers to quickly establish rapport with respondents. After knocking on the door and making contact with a resident, interviewers requested to speak to "an adult whose name is on the lease." If that adult was not there, they asked to speak to "the adult most knowledgeable about household financial matters." Interviewers followed an introductory script (see appendix)—the script explained the purpose of the study, offered a $20 incentive, carefully described how the tenants' responses would be kept anonymous—and requested an interview.[8] When tenants agreed to participate, interviewers conducted the survey (taking on average 35 minutes), asking tenants questions and recording their answers on a paper form.

Table 1 displays the total fielded cases and response rates for the MARS sample. The American Association for Public Opinion Research (AAPOR) offers several ways to compute a response rate. The most conservative calculation (*AAPOR Response Rate 1*) places in the numerator only fully completed interviews and in the denominator refusals and all cases of unknown eligibility. According to this metric, MARS has a response rate of 83.4%. An alternative calculation places in the denominator the proportion of unknown eligibility cases that is equal to the proportion of eligible cases for all known eligibility cases. By so doing, it estimates what the response rate would have been had we been able to screen all of the unknown eligibility cases. The percentage of eligible cases in the sample is estimated by: 1 – (Ineligible cases/[All fielded cases – unknown eligibility]). This metric is known as *AAPOR Response Rate 3*, and it is 91% for MARS.

Table 1. Final Dispositions

Interviewed respondents	
Completed Interviews	988
Partially completed interviews	2
Total	**990**
Eligible, did not interview	
Refused	41
Unable to enter building	3
Language barrier, eligible	1
Non-contact after screener completed	25
Total	**70**
Unknown eligibility	
Language barrier, unknown eligibility	1
Non-contact, screener not completed	103
Screener refused	21
Total	**125**
Ineligible	
Out of sample/address does not exist	88
Business or government/not a housing unit	17
Institution	3
Subsidized housing unit	101
Vacant	368
Temporary or seasonal residence	1
Owner-occupied	1,746
Full-time college student	19
Block density of college students	146
Block gentrification	82
New residents at previous refusal	23
Total	**2,594**
Total fielded cases	**3,379**
AAPOR Response rate 1*	**83.4%**
AAPOR Response rate 3**	**90.1%**
AAPOR Cooperation rate 1***	**93.2%**

*RR1: This response rate does not calculate partials with completed interviews. It places all cases of unknown eligibility in the denominator. This is the most conservative response rate.

$$\frac{\text{Interviews}}{(\text{Interviews} + \text{Partials}) + (\text{Eligible, did not interview}) + (\text{Unknown eligibility})}$$

**RR3: This response rate does not calculate partials with completed interviews. In the denominator, it places the proportion of unknown eligibility cases that is equal to the proportion of eligible cases for all known-eligibility cases. (In this study it is 29%). By doing so, it estimates what the response rate would be if we had been able to screen all of the unknown eligibility cases. This response rate is less conservative, but can also be appropriate in many instances. When reporting this response rate, it is important to document the formula as being AAPOR RR3.

$$\frac{\text{Interviews}}{(\text{Interviews} + \text{Partials}) + (\text{Eligible, did not interview}) + [(\text{estimate of eligible cases in sample}^{\wedge}) * (\text{Unknown eligibility})]}$$

^1 – (Ineligible cases/(All fielded cases – unknown eligibility))

***CR1: This is the proportion of interviews we completed out of the total number of eligible respondents we contacted. Partials are included in the denominator only. This is the most conservative cooperation rate.

$$\frac{\text{Interviews}}{(\text{Interviews} + \text{Partials}) + (\text{Eligible, did not interview})}$$

Oversample. MARS also includes an oversample of 100 recently evicted tenants, who were randomly selected from closed eviction cases in Milwaukee County that occurred 12 to 24 months prior to the final fielding of the survey. The total universe of closed cases with eviction judgments for the study period was extracted from the Milwaukee County Small Claims Court. These records contained people's names and addresses from which they were evicted. For the oversample, we drew random replicates of cases and fielded cases in small representative batches in a manner that maximized response rate. The UW Survey Center used its extensive system of tracking and locating resources to locate individuals, administering an in-person survey virtually identical to the main sample survey.

The University of Wisconsin Survey Center maintains first-rate tracking resources and staff. The Tracking and Locating Department serves to provide support on projects by obtaining telephone numbers and/or addresses of respondents selected for our surveys. Using a variety of state-of-the-art locating tools, which include nation-wide credit bureau databases, fee-for-service locater websites (e.g. Lexus Nexus, DirectoryNet), CD-ROM directories, correctional services databases, professional web-based information resources, and other "hands-on" investigative research methods, the Tracking and Locating Department assists the UW Survey Center in achieving high response rates with difficult-to-reach populations.

The most conservative response rate estimate for the oversample is 28.6%. This estimate includes selected eviction cases that were never attempted because contact information was unavailable. An adjusted estimate that removes the cases for which tracing was unsuccessful returns a response rate of 35.5%. Every selected eviction case was re-traced several times throughout the study period, but 68 cases were not found in any of those efforts. On the back end, appropriate weights to surveys generated by oversampling efforts were applied in the master dataset.

Weights. After data collection, custom design weights for the regular sample and oversample were calculated by Dr. Charles Palit to reflect the inverse of selection probability, facilitated by a Lahiri (1951) procedure, based on the demographic characteristics of Milwaukee's rental population and adjusted to MARS's sample size. The Lahiri procedure allows the sampler to select probability samples (with a probability proportional to size) and to compute the selection probabilities for the resulting sample. Selection probabilities were then used to calculate the design weights for the overall sample.

Table 2 compares the weighted and unweighted MARS sample to the broader Milwaukee

population along key socioeconomic and demographic indicators. The median annual household income among MARS respondents is $25,003, considerably lower than that of the Milwaukee population ($35,851). Only 16% of MARS respondents are married, compared to 41% of Milwaukeeans; and a fifth of the sample has less than a high school education, compared to 14.8% of Milwaukee adults. Seventeen percent of MARS respondents have a criminal record, and only 44% are full-time workers. Almost 20% of households in the MARS sample are located in "extreme-poverty" neighborhoods, where at least 40% of families live below the poverty line. With respect to racial and ethnic characteristics, MARS (by design) has slightly higher percentages of African Americans and Hispanics, and a significantly lower percentage of whites, than Milwaukee.

Table 2. Milwaukee Area Renters Study (MARS) sample compared to Milwaukee population. Data on Milwaukee come from the 2010 U.S. Census.

	MARS		Census
Variable	Unweighted	Weighted	Milwaukee
Median Household Income ($)	25,003	30,398	35,851
Married (%)	16	21	41
Less than High School Education (%)	21	13	14.8
White (%)	31.3	46.1	44.8
Black (%)	46.9	34.6	40
Hispanic (%)	18.7	13.6	17.3

V. Survey Questions

The MARS questionnaire is divided into 12 sections, composing more than 250 unique items. Uniquely, many of the questions were informed by Matthew Desmond's ethnographic study of tenants and landlords in low-income Milwaukee neighborhoods. Reflecting the value of fieldwork to survey design, new questions were added or reworded based on Desmond's ethnographic observations (see Desmond 2016; Desmond and Shollenberger 2015).

With *Section A: Maintenance and Neighborhood*, the survey begins with questions about housing problems as well as about community involvement and neighborhood trust.

Section B: Housing History Roster collects a two-year residential history from all respondents.[9] Here, interviewers employed a memory prop—a two-year calendar (see appendix)—to help respondents recall important landmarks and features of their renting experience. Interviewers instructed respondents: "I'm interested in all the places you lived or stayed, including places you only lived at for a short while. Please tell me about all the places you lived or stayed for at least a month. These might have been places that were yours, or they might have been places where you lived with other people. They might also have been shelters or correctional facilities." Respondents were asked to provide the crossroads of their previous residences, which will later be geo-coded, allowing one to track not only their number of moves but also where people moved to and from—a unique and important feature of the data that, among other things, will allow researchers to determine where families end up after being evicted.

Section C: Current Renter Behavior asks a serious of questions about the respondent's current residence, questions that later are repeated for past residences. Respondents were asked how they found their current apartment (e.g., newspaper, friend) and why they moved into the neighborhood—questions that will provide information about the ways in which families find housing as well as why they move into one area over another. They were asked, further, about rent, rental assistance, utilities, and number of bedrooms in the unit, information that will demonstrate (among other things) how much income poor families are devoting for what kind of housing. Questions about landlords' gender and race/ethnicity are also put to respondents.

Section D: Adult Roster inquires into the gender, income, and education of each adult in

the household other than the respondent. These items will provide variables for household income and composition (the latter of which can shed light on the prevalence of overcrowding). This section also asks if these adults have been evicted in the last two years.

Section E: Children Roster asks about the gender and age of *all* children who live in the household (not just the respondent's children). Importantly, it also collects information on these children's health, both through questions that request parents' assessment (e.g., "Would you say his/her health is poor, fair, etc.?") and through those that ask if a "professional has ever diagnosed" a child with asthma, lead poisoning, ADHD/ADD, a learning disability, or diabetes.[10]

Sections F, G, and H—Previous Address Data. Interviewers applied questions found in these sections to each of the respondent's past residences (listed in *Section B*), resulting in the collection of a complete two-year retrospective residential history for each respondent. To prime memory, respondents were again shown the two-year calendar. Respondents were asked several questions about each previous residence in which they had lived in the previous two years. Retrospective data are most reliable if they (a) have to do with salient life events; (b) are limited to a recent recall period; and (c) are collected with the aid of a memory prop (Beckett et al. 2001; Sayles, Belli, and Emilio 2010). This study's retrospective data meet all three criteria: they focus on the memorable event of moving; are restricted to a two-year recall period; and were collected with a recent history calendar designed to prime memory.

Section F: Past Renter Behavior applies questions housed in *Section C* to past residences, asking about old landlords, rent, and so forth. It also includes questions that document possible eviction-warranting behavior, especially late payments or nonpayment of rent.

Section G: Adults in Previous Residences collects adult rosters for each previous dwelling.

Section H: Reasons for Moving records why a respondent moved from a previous address.

As Matthew Desmond (2016) learned during fieldwork, because tenants often have strict understandings of what constitutes "eviction," many who experienced involuntary removal would not report as much if asked in a straightforward way. This is why studies based on court records (Desmond 2012) produce much larger estimates of the frequency of eviction than those based on self-reports. Informed by ethnographic work among urban renters, the MARS survey implemented new techniques designed to collect reliable data about renters' motivations for moving. Interviewers asked each respondent a series of ordered yes/no questions, beginning with involuntary removals and ending with voluntary moves:

1) An eviction is when your landlord forces you to move when you don't want to. Were you, or a person you were staying with, evicted?

2) Did you, or a person you were staying with, [leave after receiving] an eviction notice?

3) Did you move away from this place because your landlord told you, or a person you were staying with, to leave?

4) Did you move away from this place because you, or a person you were staying with, missed a rent payment and thought that if you didn't move you would be evicted?

5) Did you move away from this place because the city condemned the property and forced you to leave?

6) Did you move away from this place because (a) the landlord raised the rent; (b) the neighborhood was dangerous; (c) the landlord wouldn't fix anything and your place was getting run down; (d) the landlord went into foreclosure?

Respondents who answered no to question 1 were asked question 2, and so on. If a respondent answered no to all of these questions, she or he finally was asked, "I see that none of these reasons fit your case. Why did you move away from this place?" This approach minimized recall bias about the motivations for moves. It also allowed us to capture a wide variety of forced moves. See Figure 4.

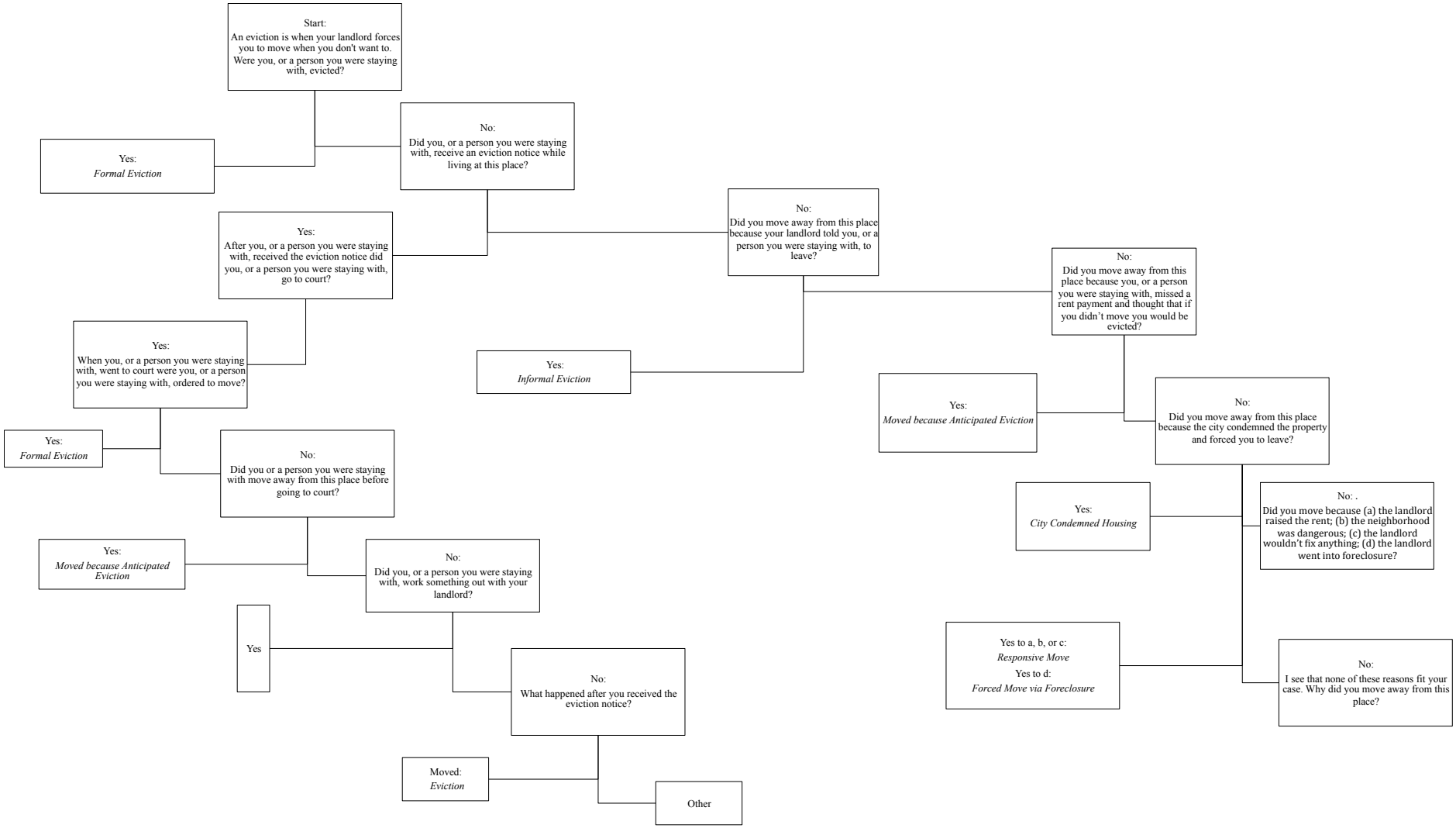


Figure 4. MARS Full "Reasons for Moving" Module (Section H)

Section I: Family and Friends documents respondents' social ties. Respondents were handed a slip of paper and asked to write down the initials or first names of their close friends and family members.[11] Once they did this, interviewers asked them a series of question about the people on their lists, questions that had to do with (a) the density of their network (e.g., "How many family members did you write down?"); (b) middle-class measures (e.g., "How many of your close friends own their own home?"); (c) urban poverty measures ("How many of your close family members collect public assistance?"); (d) resource sharing ("How many of your close friends have helped you pay rent?"); and (e) social suffering (e.g., "How many of your close family members have been evicted?").

Section J: Demographics collects data on respondents' socioeconomic background, income, education, health, race, age, and marital status. It also revisits the two-year calendar, first introduced in *Section B*, asking respondents if in the last two years they have had a serious relationship end, had been fired or laid off from a job, or have had their public assistance sanctioned. If they answer yes to any of these questions, they are then asked when this occurred (month, year). This section also asks respondents if they or their siblings have ever been evicted and if they have a criminal record.

In *Section L: Interviewer Observations*, interviewers noted if they observed housing problems (e.g., roaches, broken windows) in the interior or exterior of respondents' residences. They also made observations about neighborhood features (e.g., abandoned buildings, litter).

VI. Data Structure and Key Variables

MARS is a cross-sectional survey with a retrospective component focused on all the places at which each respondent has lived in the two years prior to being surveyed. As observed in the previous section, MARS includes information about each previous address, including renter

behavior, adult roommates, and reasons for moving. Accordingly, the data structure entails previous addresses or "spells" clustered within respondents. The variable **csid** is the unique case identifier, and the variable **hhindex_new** indicates which "spell" or previous address to which data refer. All cross-sectional data are housed in rows where **hhindex_new** = 0, referring to a respondent's address at the time of the survey (her or his "current address"). All retrospective data are housed in rows where **hhindex_new** = 1, 2, … *n*, where *n* refers to the number of addresses at which a respondent has lived in the previous two years. An **hhindex_new** value of 1 refers to a respondent's last address; an **hhindex_new** value of 2 refers to the address the respondent lived in prior to the former address, and so on. Here, then, a "spell" corresponds to addresses, not time points.

hhindex_new:	2	1	0
csid:	1100	1100	1100
description:	last, last address	last address	address at time of survey

Figure 5. Stylized depiction of MARS data

The MARS survey was fielded between 2009 and 2011. Surveys fielded in 2009 and 2010 constitute MARS Version 1; those fielded in 2011 constitute MARS Version 2. The variable **MARSV** indicates the version, and the variable **date** indicates the day, month, and year the interview was completed. MARS Version 2 includes some items that were not included in MARS Version 1.

The variable **entity** links to open-ended responses for Sections F, G, and H. Use it in combination with **csid**, **hhindex_new**, and the variable name when linking the MARS dataset with the open-ended files *MARS_Version 1_Open-Ended Responses_Sections F,G,H* and *MARS_Version 2_Open-Ended Responses_Sections F,G,H*.

Customized weights are described in the variable **weight**. The variable **oversample** indicates if a case was included in the study as part of the oversample of 100 recently evicted households. The variable **recentmove** indicates if the respondent moved at least once in the previous two years. Respondents who participated in MARS 1 who had lived at their current address for at least two years were not asked any questions about their previous address (Sections F, G, and H). Respondents who participated in MARS 2 who had lived at their current address for at least two years were asked about their previous address.

VII. Restricted MARS Data

To protect respondents' privacy, the public MARS database does not include current or previous addresses. Block group codes, however, have been retained, allowing researchers to merge MARS with population-level data. The public MARS dataset also omits item A7 (in which respondents described the boundaries of their neighborhood). To request restricted MARS data, please contact the principal investigator, Dr. Matthew Desmond, at mdesmond@fas.harvard.edu.

VIII. Studies that Have Used the MARS Data

Desmond, Matthew, and Kristin Perkins, "Household and Housing Instability," *Urban Affairs Review*, forthcoming (2016).

Abstract. Previous research attempting to estimate the effects of residential instability typically overlooks other consequential changes within households that may be coincident with moving. Drawing on novel data of renting households in Milwaukee that recently relocated (N = 569), this article establishes the frequency at which residential or housing instability is accompanied by household instability : changes in the composition of adults living under the same roof. We find that most moves are accompanied by household instability and that households with young children are significantly more likely to experience household instability. These findings imply that researchers attempting to isolate the effects of residential instability, especially for children, should account for the possible influence of household change.

Greenberg, Deena, Carl Gershenson, and Matthew Desmond, "The Disparate Impact of Eviction," *Harvard Civil Rights-Civil Liberties Law Review*, forthcoming (2016).

Abstract. Tens of thousands of housing discrimination complaints are filed each year. Although there has been extensive study of discrimination in the rental market, discrimination in evictions has been largely overlooked. This is because determining whether discrimination exists in evictions presents several challenges. Not only do landlords typically have a non-discriminatory motive for evictions (e.g., nonpayment), they also wield tremendous discretion over eviction decisions - discretion that can be informed by conscious or unconscious bias against a protected group. Detecting discrimination in evictions, moreover, poses a number of challenges that conventional methods of assessing housing discrimination are ill suited to address. This Article is among the first to empirically investigate racial and ethnic discrimination in eviction decisions. It does so by drawing on the Milwaukee Area Renters Study, a novel observational study of 1,086 renters. Statistical analyses reveal that among tenants at risk of eviction, Hispanic tenants in predominately white neighborhoods were roughly twice as likely to be evicted than those in predominantly non-white neighborhoods. Hispanic tenants were also more likely to get evicted when they had a non-Hispanic landlord. This Article discusses possible explanations for these findings and evaluates legal and policy solutions for addressing discrimination in eviction proceedings.

Desmond, Matthew, and Carl Gershenson, "Housing and Employment Insecurity among the Working Poor," *Social Problems* 63 (2016): 46-67.

Abstract. While social scientists have documented severe consequences of job loss, scant research investigates why workers lose their jobs. We explore the role of housing insecurity in actuating employment insecurity, investigating if workers who involuntarily lose their homes subsequently involuntarily lose their jobs. Analyzing novel survey data of predominately low-income working renters, we find the likelihood of being laid off to be between 11 and 22 percentage points higher for workers who experienced a preceding forced move, compared to observationally identical workers who did not. Our findings suggest that initiatives promoting housing stability could promote employment stability.

Desmond, Matthew, and Tracey Shollenberger, "Forced Displacement from Rental Housing: Prevalence and Neighborhood Consequences," ***Demography*** **52 (2015): 1751-72.**

Abstract. Drawing on novel survey data of Milwaukee renters, this study documents the prevalence of involuntary displacement from housing and estimates its consequences for neighborhood selection. More than one in eight Milwaukee renters experienced an eviction or other kind of forced move in the previous two years. Multivariate analyses suggest that renters who experienced a forced move relocate to poorer and higher-crime neighborhoods than those who move under less-demanding circumstances. By providing evidence implying that involuntary displacement is a critical yet overlooked mechanism of neighborhood inequality, this study helps to clarify why some city dwellers live in much worse neighborhoods than their peers.

Desmond, Matthew, and Weihua An, "Neighborhood and Network Disadvantage among City Dwellers," ***Sociological Science*** **2 (2015): 329-50.**

Abstract. Drawing on novel survey data, this study maps the distribution of neighborhood and network disadvantage in a population of Milwaukee renters and evaluates the relationship between each disadvantage and multiple social and health outcomes. We find that many families live in neighborhoods with above average disadvantage but are embedded in networks with below average disadvantage, and vice versa. Neighborhood (but not network) disadvantage is associated with lower levels of neighborly trust but also with higher levels of community support (e.g., providing neighbors with food). Network (but not neighborhood) disadvantage is associated with lower levels of civic engagement. Asthma and diabetes are associated exclusively with neighborhood disadvantage, but depression is associated exclusively with network disadvantage. These findings imply that some social problems may be better addressed by neighborhood interventions and others by network interventions.

Desmond, Matthew, Carl Gershenson, and Barbara Kiviat, "Forced Relocation and Residential Instability among Urban Renters," ***Social Service Review*** **89 (2015): 227-62.**

Abstract. Residential instability often brings about other forms of instability in families, schools, and communities that compromise the life chances of adults and children. Social scientists have found that low-income families move frequently without fully understanding why. Drawing on novel data of more than 1,000 Milwaukee renters, this article explores the relationship between forced relocation and residential instability. It finds that low incomes are associated with higher rates of mobility due to poorer renters' greater exposure to forced displacement. Not only do higher rates of formal and informal eviction, landlord foreclosure, and building condemnation directly increase the mobility of poorer renters, but forced displacement also increases subsequent unforced mobility. A forced move often compels renters to accept substandard housing, which drives them to soon move again. This article reveals mechanisms of residential mobility among low-income renters, identifies previously undocumented consequences of forced displacement, and develops a more comprehensive model of residential instability and urban inequality.

IX. Appendix

Table A1. Income, education, and racial demographic information for the 50 most populous U.S. cities. Data come from the 2010 U.S. Census.

City	Population	Median Household Income	High school graduate or higher	White	Black	Hispanic
New York, N.Y.	8,336,697	$51,270	79.30%	44.00%	25.50%	28.60%
Los Angeles, Calif.	3,857,799	$50,028	73.90%	49.80%	9.60%	48.50%
Chicago, Ill.	2,714,856	$47,371	80.20%	45.00%	32.90%	28.90%
Houston, Tex.	2,160,821	$44,124	74.40%	50.50%	23.70%	43.80%
Philadelphia, Pa.	1,547,607	$36,957	80.00%	41.00%	43.40%	12.30%
Phoenix, Ariz.	1,488,750	$48,596	79.70%	65.90%	6.50%	40.80%
San Antonio, Tex.	1,382,951	$43,961	79.80%	72.60%	6.90%	63.20%
San Diego, Calif.	1,338,348	$63,739	86.40%	58.90%	6.70%	28.80%
Dallas, Tex.	1,241,162	$42,259	73.30%	50.70%	25.00%	42.40%
San Jose, Calif.	982,765	$80,764	82.30%	42.80%	3.20%	33.20%
Austin, Tex.	842,592	$51,596	85.60%	68.30%	8.10%	35.10%
Jacksonville, Fla.	836,507	$49,192	87.20%	59.40%	30.70%	7.70%
Indianapolis, Ind.	834,852	$42,704	84.00%	61.80%	27.50%	9.40%
San Francisco, Calif.	825,863	$72,947	85.70%	48.50%	6.10%	15.10%
Columbus, Ohio	809,798	$43,348	87.70%	61.50%	28.00%	5.60%
Fort Worth, Tex.	777,992	$50,456	79.00%	61.10%	18.90%	34.10%
Charlotte, N.C.	775,202	$53,146	87.90%	50.00%	35.00%	13.10%
Detroit, Mich.	701,475	$27,862	77.10%	10.60%	82.70%	6.80%
El Paso, Tex.	672,538	$39,442	74.60%	80.80%	3.40%	80.70%
Memphis, Tenn.	655,155	$37,072	81.90%	29.40%	63.30%	6.50%
Boston, Mass.	636,479	$51,739	84.20%	53.90%	24.40%	17.50%
Seattle, Wash.	634,535	$58,890	89.80%	81.60%	3.90%	11.70%
Denver, Colo.	634,265	$47,499	84.70%	68.90%	10.20%	31.80%
Washington, DC	632,323	$61,835	87.10%	42.90%	50.10%	9.90%
Nashville, Tenn.	624,496	$46,141	85.10%	60.50%	28.40%	10.00%
Baltimore, Md.	621,342	$40,100	78.50%	29.60%	63.70%	4.20%
Louisville, Ky.	605,110	$43,680	86.20%	70.60%	22.90%	4.50%
Portland, Ore.	603,106	$50,177	89.90%	76.10%	6.30%	9.40%
Oklahoma City, Okla.	599,199	$44,973	84.80%	62.70%	15.10%	17.20%
Milwaukee, Wis.	*598,916*	*$35,851*	*80.50%*	*44.80%*	*40.00%*	*17.30%*
Las Vegas, Nev.	596,424	$54,174	81.70%	62.10%	11.10%	31.50%
Albuquerque, N.M.	555,417	$47,333	87.70%	69.70%	3.30%	46.70%
Tucson, Ariz.	524,295	$37,448	83.90%	69.70%	5.00%	41.60%
Fresno, Calif.	505,882	$43,440	74.60%	49.60%	8.30%	46.90%
Sacramento, Calif.	475,516	$50,781	81.50%	45.00%	14.60%	26.90%

Long Beach, Calif.	467,892	$52,945	79.00%	46.10%	13.50%	40.80%
Kansas City, Mo.	464,310	$45,246	86.60%	59.20%	29.90%	10.00%
Mesa, Ariz.	452,084	$49,872	86.40%	77.10%	3.50%	26.40%
Virginia Beach, Va.	447,021	$65,910	92.90%	67.70%	19.60%	6.60%
Atlanta, Ga.	443,775	$45,946	87.30%	38.40%	54.00%	5.20%
Colorado Springs, Colo.	431,834	$53,747	92.20%	78.80%	6.30%	16.10%
Raleigh, N.C.	423,179	$52,819	90.70%	57.50%	29.30%	11.40%
Omaha, Nebr.	421,570	$46,978	88.10%	73.10%	13.70%	13.10%
Miami, Fla.	413,892	$30,270	68.40%	72.60%	19.20%	70.00%
Oakland, Calif.	400,740	$51,144	79.50%	34.50%	28.00%	25.40%
Tulsa, Okla.	393,987	$40,268	86.30%	62.60%	15.90%	14.10%
Minneapolis, Minn.	392,880	$47,478	88.00%	63.80%	18.60%	10.50%
Cleveland, Ohio	390,928	$27,470	76.30%	37.30%	53.30%	10.00%
Wichita, Kans.	385,577	$45,625	86.70%	71.90%	11.50%	15.30%
Arlington, Tex.	375,600	$52,699	84.10%	59.00%	18.80%	27.40%
Fifty-city Median	*622,919*	*$47,425*	*84.15%*	*59.30%*	*18.85%*	*17.25%*
Fifty-city Average	*958,726*	*$47,986*	*83.05%*	*56.80%*	*22.59%*	*24.28%*

MARS

MILWAUKEE AREA RENTERS STUDY

ADVANCE MAILING

Dear Milwaukee Resident(s),

I would like to invite you, or an adult in your household, to take part in an important study of tenants in Milwaukee. The Milwaukee Area Renters Study—or MARS—is being conducted by researchers at the University of Wisconsin-Madison. This study will help us learn more about housing conditions in Milwaukee. This includes the common things tenants have to deal with, like neglected repairs and eviction.

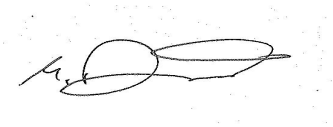
Your experiences and opinions are very important. No one else can take your place in this study. This is because only you can tell us about your experiences as a renter in Milwaukee. We want to give you a chance to tell us the good things and bad things about life in Milwaukee. The information you share with us can have the power to help improve housing in communities like yours.

In the next few weeks, an interviewer from the University of Wisconsin Survey Center will visit your home. The interviewer will invite one adult in your household to take part in an interview. When the interview is finished, **the interviewer will give you $20** as a "thank you." The interview can be done at a convenient time for you. If you wish, the interview can be done in parts.

Participation is voluntary. **Any information you share with us will be kept strictly confidential.** The information you provide will not be given to any other persons or organizations in a way that would allow you to be identified.

We look forward to talking with you! For further details about MARS, please see the list of frequently asked questions on the back of this letter. Please share this letter with any adult in your household who may be interested in this study.

Sincerely,



Matthew Desmond
Principal Investigator, Milwaukee Area Renters Study
Department of Sociology, University of Wisconsin-Madison

MARS In-Person Screening Introduction

"Hello, my name is <Interviewer's Name>. May I speak with a person who rents this place?"

If person who rents units is unavailable: "Could I then speak with an adult who lives here?"

If neither is available: "Do you know what time of day they are usually home?"

"I am here for the Milwaukee Area Renters Study. We are calling it MARS for short."

"Recently, you should have received a letter about MARS. With this study, we are interviewing people to learn more about housing conditions in Milwaukee so we can help improve housing in communities like yours."

"We are very interested in your experiences as a renter, in common things you might have had to deal with, like eviction or neglected repairs. Any information you share with us will be kept strictly confidential. Your name will not be attached to any information you provide."

"If you complete the interview, I'd like to thank you by giving you a gift of 20 dollars. The letter mentioned that. Does that ring a bell?"

If "No," hold up a copy of the letter for the respondent to look over. Point out the logo to see if it rings a bell with the respondent.

If "Yes", "You probably also remember from the letter that we need to screen your household to find out if you rent or own to be eligible to participate." <pause>

Answer any questions the R has using the Q&A sheets. Attempt to move forward with asking the screening questions.

"Do you own this place or rent it?"

If "own": "Have you owned this place for two years or more?"

If "yes": "For this study, we are focusing only on people who rent. But thank you for your time. By the way, do you know if your neighbor owns or rents?" [Ask about dwellings on either side of unit.]

If "no": "Have you rented in the past two years?"

If "yes": Proceed to interview.

If "no": "For this study, we are focusing only on people who rent. But thank you for your time. By the way, do you know if your neighbor owns or rents?" [Ask about dwellings on either side of unit.]

If "rent": Proceed to interview.

Memory Prop Example
Calendar

OCTOBER 2007 – OCTOBER 2009

	2007			2008												2009									
	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct
Events in your life Jobs, Birthdays, Special occasions																									
Places you lived																									

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Notes

[1] The MARS survey took place in the wake of the foreclosure crisis. Although foreclosures of rental property increased during the crisis (Been and Glashausser 2009), evictions in Milwaukee actually declined (Desmond 2012).

[2] As in many cities, Milwaukee's renters are poorer than its overall population. Comparing the weighted MARS sample to 2010 U.S. Census data, we see that the median annual household income among Milwaukee renters is almost $5,500 lower than that of the city's population ($30,398 vs. $35,851).

[3] Comparing the weighted MARS sample to 2010 U.S. Census data, we see that the median annual household income among Milwaukee renters is $30,398, lower than that of the city's population ($35,851).

[4] The MARS sample excluded renters living in public housing but not renters in the private market in possession of a housing voucher.

[5] As in many other American cities, the racial composition of Milwaukee neighborhoods follows a U-shaped distribution with most residents living in highly segregated neighborhoods.

[6] Block groups were classified as high-poverty neighborhoods if their poverty rate exceeded 47% for predominantly Hispanic neighborhoods, 54% for predominantly African-American neighborhoods, and 19% for predominantly white neighborhoods.

[7] To ensure balance and robustness, to improve the estimates based on the sample's probability structure, and to maximize generalizability, a small number of low-income blocks with a lower rental density (that is, below 85%) were included in the sample.

[8] During the first phase of MARS, respondents were offered a $10 incentive.

[9] Housing history was restricted to the previous two years to correct for lifetime risk of eviction and because a two-year recall period does not significantly reduce data quality.

[10] This wording was selected to increase the integrity of data regarding children's health. A parent may suspect her or his child to have a learning disability, but the child may not in fact have one. Accordingly, interviewers placed special emphasize on a professional diagnoses.

[11] This form was designed to limit the number of people respondents reasonably could jot down without providing them with an explicitly stated limit (a provision that might have the opposite effect: inflating, rather than limiting, their list of close family members and friends). Respondents were provided a half a sheet of paper divided into two bordered columns—one labeled "Family," the other, "Friends"—which will allow them to fit a maximum of approximately ten names into each column.