Housing Matters

Characteristics and Experiences of TANF Clients by Housing Status

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UNSTABLE OR POOR QUALITY HOUSING is believed to be harmful to health and well-being, particularly for children. Unsafe living conditions and frequent moves, which may be more common among low-income families, can impact physical or mental health and disrupt family relationships, work or school (GAO, 2010; Phinney, 2009). Despite the potential importance of housing for Department of Social and Health Services' (DSHS) clients, the agency has historically had an incomplete picture of their housing status because housing programs are generally overseen by other agencies. To develop a better understanding of the housing status of DSHS clients and how it may affect their well-being, we combined data from federal, state and local housing assistance programs with social service data for 17,471 King County households that received Temporary Assistance for Needy Families (TANF) in State Fiscal Year (SFY) 2011.

We categorized the TANF households according to whether or not they were receiving any housing assistance from Public Housing Authority (PHA) programs, the Low Income Housing Tax Credit (LIHTC) program, or programs recorded in the Homeless Management Information System (HMIS) in their first month on TANF in SFY 2011. Those not receiving assistance from any of these three programs were classified as either homeless or housed based on self-reported housing status in their records. We then compared social service use; indicators of physical and behavioral health; and measures of stability including employment, arrests, and residential mobility for the TANF households according to the five housing status categories. The findings in this report are descriptive. They cannot be used to attribute underlying causes, since we have not adjusted for differences in household characteristics or risk factors between the housing status categories.

Key Findings

- One third (32 percent) of TANF households got housing assistance from one or more of three programs (PHA, LIHTC, HMIS). Over half (54 percent) of the households appeared to be housed without any housing assistance; 14 percent were homeless and not receiving housing assistance.

- TANF clients *with* housing assistance received more months of basic social services in the prior 3 years than those who were either homeless or housed *without* assistance.

- TANF clients who appeared to be housed without receiving help from any of the federal housing assistance programs had the lowest rates of child welfare service use and the highest earnings.

- Recent evidence of housing instability, including being homeless or receiving emergency housing assistance, was associated with higher rates of substance abuse, arrests, and residential mobility.

With Housing Assistance*

Public Housing Authority Housing Programs (PHA)

PHAs operate three main rental housing assistance programs: public housing, Housing Choice Vouchers and project-based vouchers/multifamily housing. HUD provides funding, technical assistance and oversight to 3,300 independent PHAs, including 36 in Washington State. Specific eligibility requirements vary by program or PHA, but HUD requires that PHAs serve the lowest-income households in their jurisdictions and ensure that households spend no more than 40 percent of their income in rent. With some exceptions, PHA assistance is permanent as long as recipients remain low-income and comply with program rules. Client data were obtained through data sharing agreements with the Seattle, King County and Tacoma housing authorities and with HUD.

Low Income Housing Tax Credit Units (LIHTC)

Congress created the federal LIHTC program to encourage the development of multi-family rental housing that is affordable to low- and moderate-income households. Developers receive tax credits in exchange for providing housing to households with incomes up to 60 percent of the median for their jurisdiction. Properties are privately owned and managed, and landlords screen and select tenants. Client data are not available for Washington State LIHTC tenants, but addresses for LIHTC properties are publicly-available from HUD (http://lihtc.huduser.org/). In some cases, individual tenants or housing providers may use assistance from PHAs or from programs described in the HMIS section below to rent LIHTC units. See the technical notes for the methods we used to identify TANF clients living in LIHTC properties.

Homelessness Assistance (HMIS)

The Homeless Management Information System (HMIS) is used by state- and federally-funded service providers to collect data about the use of housing assistance by people who are homeless or at risk of homelessness. Programs and services captured in HMIS include emergency shelter, transitional housing, homelessness prevention/rapid re-housing and permanent or permanent supportive housing. The Washington State Department of Commerce manages our state's HMIS database and provides DSHS access to client data for research and program evaluation through inter-agency data sharing agreements.

Without Housing Assistance

Homeless

DSHS Economic Services Administration (ESA) uses the Automated Client Eligibility System (ACES) to determine eligibility for TANF, Basic Food, Medical Assistance and other social service benefits. Indications of homelessness in ESA client data are based on self-reported living arrangements or shelter expenses recorded in ACES. These include homelessness, temporary or emergency, couch surfing or doubling up, or having shelter expenses coded as "nominal rent" or homeless.

Housed

Households that did not receive housing assistance from any of the programs described above and were *not* flagged as homeless in ESA's client records are considered "housed without housing assistance."

*Department of Commerce Housing Trust Fund housing was not included in these analyses, so some households receiving this form of subsidized housing may be included in the Housed without Assistance category.

SFY 2011 King County TANF clients

Using data from DSHS' Economic Services Administration (ESA), we identified 17,471 households that received TANF in at least one month of SFY 2011 and lived in King County at some point in the year. We used data about the TANF head of household during their first month of TANF assistance in SYF 2011, which also serves as the reference ("index") month for analyses.[1] We determined each household's housing status as of their index month and described service use and other characteristics during the previous 36 months.[2] As a result, the analysis period varies based on the index month. Overall, data come from July 2008 through June 2011.
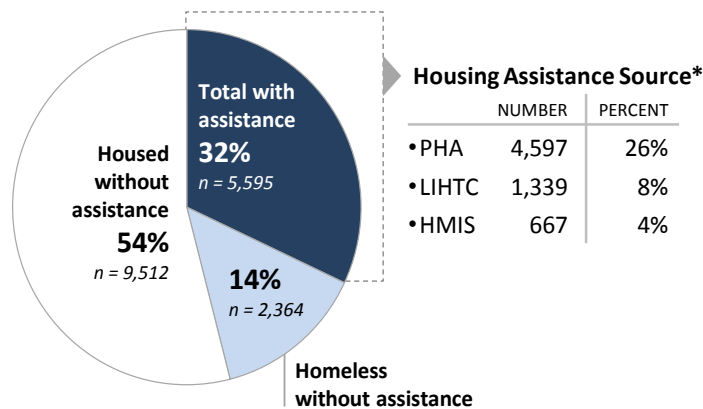
Three main sources of housing assistance which are available to low-income households are used in this report to classify households according to the type of assistance received: programs administered by PHAs, privately-owned properties that receive Low Income Housing Tax Credits (LIHTC), and homelessness assistance or prevention programs. We first determined whether the household used any of these sources of assistance during their index month (see detailed description of Housing Status on the previous page). For TANF households that did *not* receive any type of housing assistance in their index month, we looked for an indication of homelessness from self-reported information on living arrangements and shelter costs in ESA's Automated Client Eligibility System (ACES). The remaining households who were not receiving housing assistance and were not flagged as homeless in the index month were classified as housed without assistance. Through these procedures, we identified five broad housing status categories: households with housing assistance (PHA, LIHTC, and/or HMIS) and those without housing assistance (homeless and housed).

We compared the TANF households across the housing status categories in terms of demographic characteristics of the head of household, social service use, physical and behavioral health care use and health risk indicators, employment, arrests, and residential mobility using administrative data.[3]

Housing

Housing Status for King County TANF Households, SFY 2011
TOTAL = 17,471

Housing Assistance Source*	NUMBER	PERCENT
• PHA	4,597	26%
• LIHTC	1,339	8%
• HMIS	667	4%

Total with assistance **32%** *n = 5,595*

Housed without assistance **54%** *n = 9,512*

14% *n = 2,364*

Homeless without assistance

*Households may receive more than one type of housing assistance.

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[1] The sample includes the adult head of household for 1- and 2-parent households and excludes child-only TANF households.
[2] For the receipt of Children's Administration Services, we used the 24 months prior to the index month so that the data would be drawn only from the FAMLINK data system to insure longitudinal continuity for this measure.
[3] The main source of data is the DSHS Integrated Client Database (ICDB) maintained by the Research and Data Analysis Division which contains linked client data from multiple sources. Data from housing assistance providers and HUD were linked to the ICDB. See the technical notes for more information on data sources and measures.

Of the 17,471 King County TANF households, one third (32 percent, n = 5,595) received some type of housing assistance in their first month on TANF in SFY 2011. For these households, public housing authority programs were by far the most common source of assistance received, with 26 percent of the households living in PHA-assisted housing. In addition, 8 percent lived in an LIHTC unit, and 4 percent received assistance through homeless assistance or prevention programs recorded in HMIS. There is some overlap in the receipt of these programs, which is discussed in more detail below.

The remaining 68 percent of the King County TANF households did not appear to be receiving any form of publicly funded housing assistance as of their first month on TANF in the fiscal year. The largest group (54 percent, n = 9,512) appeared to be stably housed and 14 percent (n = 2,364) were homeless or unstably housed as of the index month.

It is important to note that the three housing assistance categories—public housing authority (PHA), tax credit (LIHTC), and homelessness assistance or prevention (HMIS)—are not mutually exclusive. For example, public- or project-based housing may be financed using tax credits, Housing Choice Voucher holders may rent privately owned LIHTC units, or transitional housing units may be subsidized using project-based voucher funds. A total of 16 percent (n = 907) of the households with housing assistance were identified as receiving assistance from multiple programs in the index month, with most of these using Housing Choice Vouchers to live in an LIHTC unit (PHA + LIHTC). Also, about half (48 percent) of households receiving assistance from a program in HMIS also received help from a PHA, the LIHTC program, or both in the index month.

Service Overlap by Assistance Type among those who Received Housing Assistance
HOUSEHOLDS WITH HOUSING ASSISTANCE = 5,595
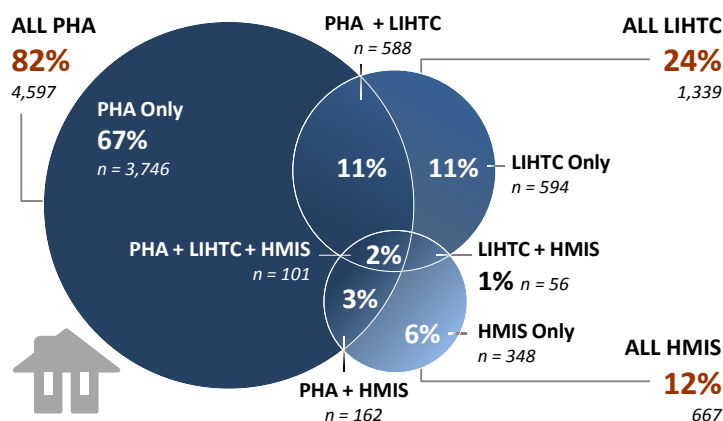
The 667 households receiving services recorded in HMIS represent a unique group since the specific types of assistance they receive may impact how providers view their housing status (e.g., stably housed versus in need of additional or continued assistance). While some of the HMIS program recipients might be classified as homeless, we have chosen to retain them as a single housing status category in this report. We recognize that some of these households may share characteristics of those receiving long-term housing support while others may be more similar to households who were homeless and not receiving any form of housing assistance in the index month. Most of the HMIS households (81 percent) received temporary assistance through the Homeless Prevention and Rapid Re-housing Program (e.g., rent, utilities or other costs) or longer support from transitional housing or the Permanent or Permanent Supportive Housing Programs. A smaller proportion (17 percent, n = 111) of the HMIS households received *only* emergency shelter in the index month, and 2 percent received emergency shelter plus either PHA or LIHTC help in the month.

Using data about each head of household in the King County TANF study population, we examined a number of characteristics to help create a more complete picture of how households compare according to their housing status. We examined demographic characteristics; receipt of social and health services; measures of physical and behavioral health; and indicators of possible stability or instability, including employment and earnings, residential mobility, and prior arrests.

Demographics

In general, households that received some form of housing assistance were headed by someone who was more likely to be older, female, and African American, particularly among households receiving help from PHAs.

- **Age** – PHA-assisted households had the oldest heads of households (32.7 years), on average, while homeless households not receiving housing assistance had the youngest (28.5 years).

- **Gender** – Women headed the majority of households in all five of the housing status groups, with the proportion of female-headed households highest among the PHA-assisted (92 percent) and lowest among the stably housed without assistance (85 percent).

- **Race/ethnicity** – Minorities were considerably more likely to head households that received some form of housing assistance, with the highest percentage found among the PHA-assisted households (76.7 percent). Households receiving some form of assistance were more likely to be headed by an African American than those not receiving any housing assistance.

Demographics of Head of Household
SFY 2011 • AS OF THE INDEX MONTH

King County Head of TANF Household	With Housing Assistance n = 5,595			Without Assistance n = 11,876	
	PHA n = 4,597	LIHTC n = 1,339	HMIS n = 667	Homeless n = 2,364	Housed n = 9,512
Average age	32.7	31.8	31.5	28.5	30.7
Percent female	92.2%	88.9%	88.3%	89.5%	85.0%
Race/ethnicity					
White only	20.4%	23.9%	21.9%	35.9%	40.5%
Minority	76.7%	71.1%	75.0%	58.7%	50.4%
African American	53.9%	46.8%	49.6%	29.9%	17.8%
Asian/Pacific Islander	5.9%	6.7%	5.2%	6.6%	11.4%
Native American	2.8%	3.0%	5.2%	4.3%	2.8%
Hispanic (may be any race)	8.2%	8.4%	9.0%	10.8%	13.3%

Household Composition

Households that received some housing assistance were larger and had more children under 18 years of age than those who did *not* receive housing assistance, whether housed or homeless.

- **Household size** – PHA-assisted households were the largest (3.3 persons per household), while the homeless households not receiving housing assistance were the smallest (2.3).

- **Number of children –** Households that received housing assistance, particularly from PHAs, had more children than did households not receiving help with housing and were more likely to have 3 or more children. Only 6 percent of households with housing assistance had *no* children listed on their TANF assistance unit compared to 10 percent of those housed without assistance and 27 percent of the homeless households. The most common reasons one may get TANF without having children recorded in a TANF assistance unit are pregnancy or having children who get assistance independently due to chronic disabilities (e.g., through Supplemental Security Income).
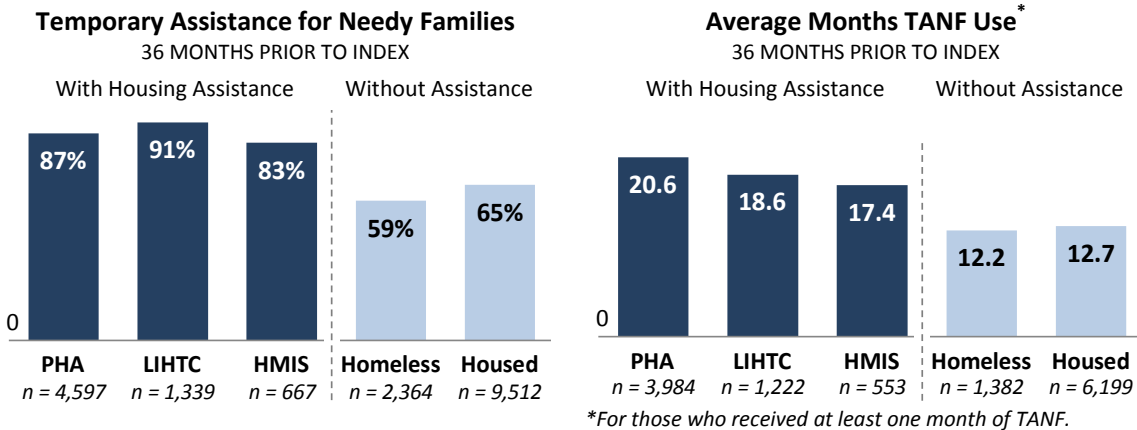
Household Composition

SFY 2011 • AS OF THE INDEX MONTH
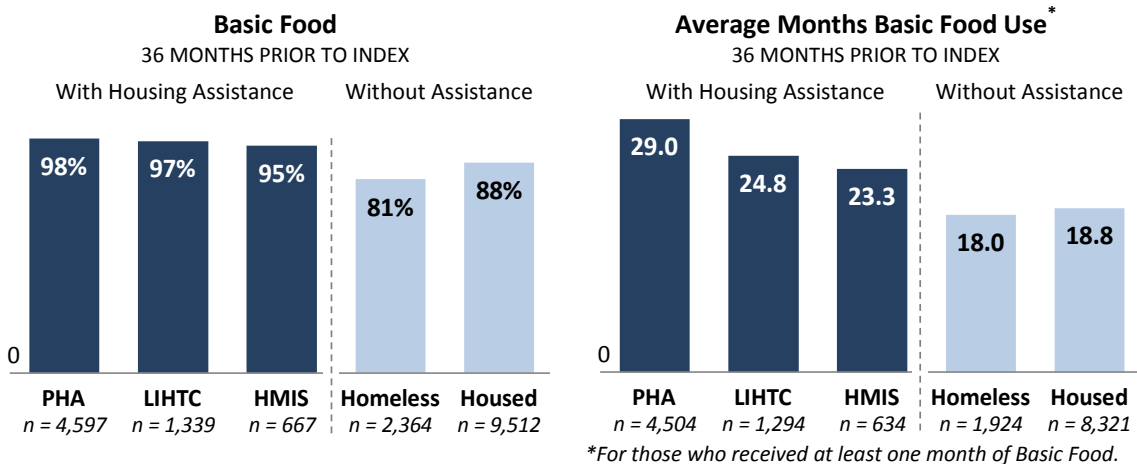
King County TANF Households	With Housing Assistance			Without Assistance	
	PHA *n = 4,597*	LIHTC *n = 1,339*	HMIS *n = 667*	Homeless *n = 2,364*	Housed *n = 9,512*
Average household size	3.3	3.2	3.1	2.3	2.8
Average # of children per household	2.1	1.9	1.8	1.2	1.6
Number of children per household					
None	6%	6%	6%	27%	10%
1	36%	41%	45%	45%	50%
2	27%	27%	25%	18%	23%
3 or more	31%	26%	23%	11%	16%

Social Service Use

Households that received housing assistance through PHAs, LIHTC units, or programs recorded in HMIS were more likely than either of the groups without housing assistance to have received TANF at some point in the 36 months preceding their first month on TANF in SFY 2011. Furthermore, the average number of months on TANF among the groups receiving housing assistance was consistently higher than the averages for either of two groups without housing assistance.

Temporary Assistance for Needy Families
36 MONTHS PRIOR TO INDEX

Average Months TANF Use*
36 MONTHS PRIOR TO INDEX

*For those who received at least one month of TANF.

The PHA, LIHTC and HMIS clients were also more likely to receive Basic Food at some point during the 36-month pre-period and for more months, on average, than either the homeless or the households housed without assistance.

Basic Food
36 MONTHS PRIOR TO INDEX

Average Months Basic Food Use*
36 MONTHS PRIOR TO INDEX

*For those who received at least one month of Basic Food.

Similarly, households that received housing assistance were more likely to be covered by Medicaid or other state-funded programs in the 36-month pre-period and to have this coverage for more months, on average, than either of the two groups that did not receive housing assistance.
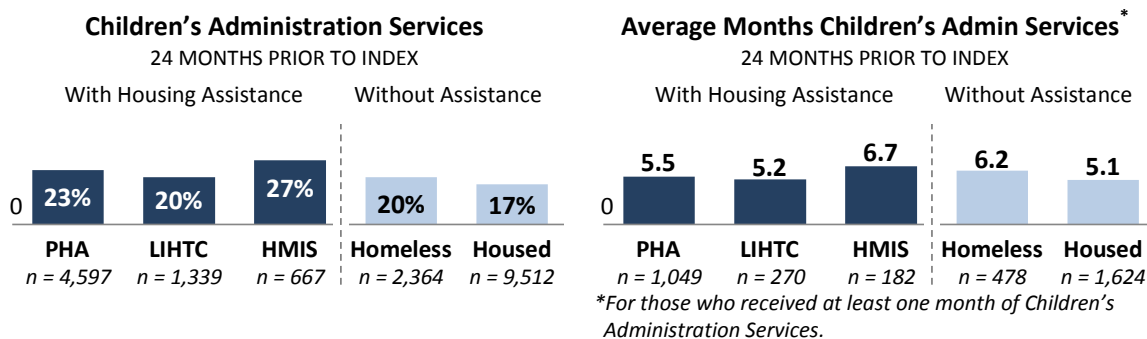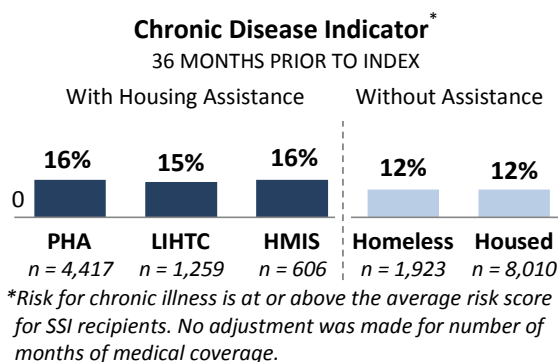
Medical Coverage
36 MONTHS PRIOR TO INDEX

With Housing Assistance			Without Assistance	
96%	94%	91%	81%	84%
PHA	**LIHTC**	**HMIS**	**Homeless**	**Housed**
n = 4,597	n = 1,339	n = 667	n = 2,364	n = 9,512

Average Months Medical Coverage[*]
36 MONTHS PRIOR TO INDEX

With Housing Assistance			Without Assistance	
27.5	24.5	24.1	19.2	19.9
PHA	**LIHTC**	**HMIS**	**Homeless**	**Housed**
n = 4,417	n = 1,259	n = 606	n = 1,923	n = 8,010

For those with at least one month of Medical coverage.

The highest rates of Children's Administration service utilization appeared to be for households that were receiving services to prevent or address homelessness (HMIS group): 27 percent had received child welfare services for an average of 6.7 months during the 24-month pre-period. The lowest rates of child welfare service use were found for households who were housed without housing assistance: 17 percent received these services for an average of 5.1 months during the 24 months.

Children's Administration Services
24 MONTHS PRIOR TO INDEX

With Housing Assistance			Without Assistance	
23%	20%	27%	20%	17%
PHA	**LIHTC**	**HMIS**	**Homeless**	**Housed**
n = 4,597	n = 1,339	n = 667	n = 2,364	n = 9,512

Average Months Children's Admin Services[*]
24 MONTHS PRIOR TO INDEX

With Housing Assistance			Without Assistance	
5.5	5.2	6.7	6.2	5.1
PHA	**LIHTC**	**HMIS**	**Homeless**	**Housed**
n = 1,049	n = 270	n = 182	n = 478	n = 1,624

For those who received at least one month of Children's Administration Services.
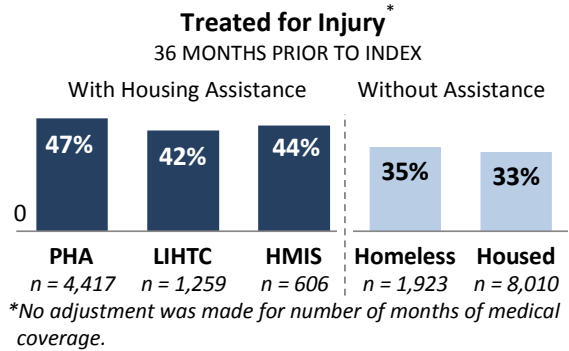
Physical and Behavioral Health

Using diagnosis and treatment services data for TANF heads of household who had medical coverage in at least one month of the pre-period, we compared physical and behavioral health indicators across the five housing status categories. For these health measures, we did not adjust for differences between the five housing status categories in their average months of medical coverage.

Those with more months of coverage have a greater opportunity to seek medical care and, therefore, receive a diagnosis or treatment counted in our indicators. As a result, some of the differences noted here could be due to longer periods of medical coverage in the pre-period for some of the housing status categories.
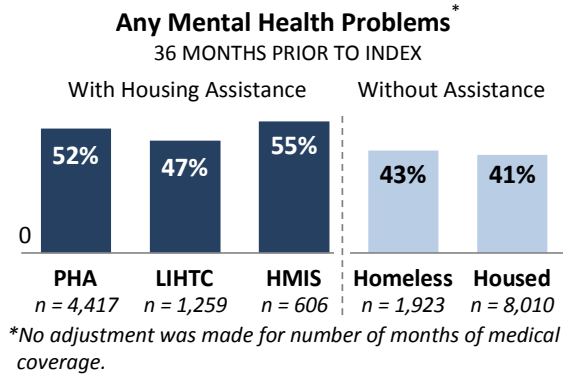
About 15 to 16 percent of the heads of households receiving housing assistance had received treatment or diagnoses revealing chronic disease compared to only 12 percent of either of the homeless or the housed group without assistance.

Chronic Disease Indicator[*]
36 MONTHS PRIOR TO INDEX

With Housing Assistance			Without Assistance	
16%	15%	16%	12%	12%
PHA	**LIHTC**	**HMIS**	**Homeless**	**Housed**
n = 4,417	n = 1,259	n = 606	n = 1,923	n = 8,010

Risk for chronic illness is at or above the average risk score for SSI recipients. No adjustment was made for number of months of medical coverage.
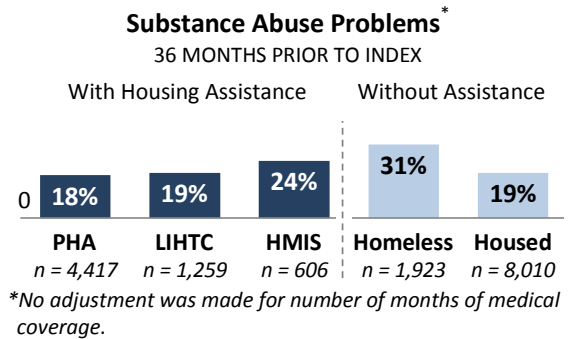
Over 40 percent of the heads of households receiving housing assistance had been treated for an injury in the 36-month pre-period compared to only about a third of those in the groups not receiving housing assistance.

Treated for Injury*
36 MONTHS PRIOR TO INDEX

With Housing Assistance			Without Assistance	
47%	42%	44%	35%	33%
PHA	**LIHTC**	**HMIS**	**Homeless**	**Housed**
n = 4,417	n = 1,259	n = 606	n = 1,923	n = 8,010

No adjustment was made for number of months of medical coverage.

Over half of the HMIS- and PHA-assisted heads of TANF households had an indication of a mental health problem based on treatment, diagnoses, or prescription records compared to 41-43 percent of those not receiving housing assistance.

Any Mental Health Problems*
36 MONTHS PRIOR TO INDEX

With Housing Assistance			Without Assistance	
52%	47%	55%	43%	41%
PHA	**LIHTC**	**HMIS**	**Homeless**	**Housed**
n = 4,417	n = 1,259	n = 606	n = 1,923	n = 8,010

No adjustment was made for number of months of medical coverage.
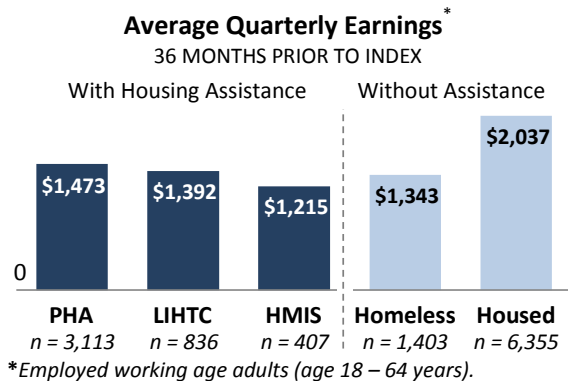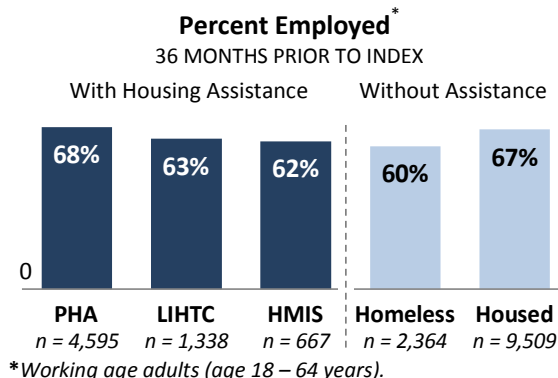
Nearly one-third (31 percent) of homeless heads of TANF clients and one-fourth (24 percent) of those in HMIS programs to address or prevent homelessness had substance abuse based on alcohol or drug-related diagnoses, treatment, and arrests. The rate of substance abuse detected in the prior 36 months was lower (18 to 19 percent) for the heads of households in the three remaining categories living in housing with or without assistance.

Substance Abuse Problems*
36 MONTHS PRIOR TO INDEX

With Housing Assistance			Without Assistance	
18%	19%	24%	31%	19%
PHA	**LIHTC**	**HMIS**	**Homeless**	**Housed**
n = 4,417	n = 1,259	n = 606	n = 1,923	n = 8,010

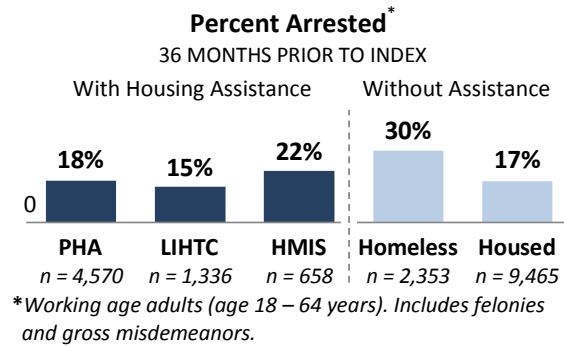*No adjustment was made for number of months of medical coverage.*

Employment and Earnings

About two-thirds of the TANF household heads worked at some point during the 36 months prior to their index month, with the lowest percentage found among the homeless not receiving housing assistance (60 percent) and the highest for those who were housed without housing assistance (67 percent) or with PHA housing (68 percent). Heads of households that were housed without assistance had a much higher average quarterly income than any other group.

Percent Employed*
36 MONTHS PRIOR TO INDEX

With Housing Assistance			Without Assistance	
68%	63%	62%	60%	67%
PHA	**LIHTC**	**HMIS**	**Homeless**	**Housed**
n = 4,595	n = 1,338	n = 667	n = 2,364	n = 9,509

***Working age adults (age 18 – 64 years).**

Average Quarterly Earnings*
36 MONTHS PRIOR TO INDEX

With Housing Assistance			Without Assistance	
$1,473	$1,392	$1,215	$1,343	$2,037
PHA	**LIHTC**	**HMIS**	**Homeless**	**Housed**
n = 3,113	n = 836	n = 407	n = 1,403	n = 6,355

***Employed working age adults (age 18 – 64 years).**

Arrests

Arrest rates were lowest for heads of TANF households that were housed through LIHTC or PHA programs or were housed without assistance. In the 36 months prior to the SFY 2011 index month, rates of arrests for felonies or misdemeanors reported to the Washington State Patrol were between 15 and 18 percent. A somewhat higher arrest rate (22 percent) occurred among the heads of households in the HMIS categories who may have been at risk for homelessness in recent years. The highest rate (30 percent) occurred for those who were homeless and not receiving any housing assistance.

Percent Arrested*
36 MONTHS PRIOR TO INDEX

With Housing Assistance   Without Assistance

PHA	LIHTC	HMIS	Homeless	Housed
18%	15%	22%	30%	17%
n = 4,570	n = 1,336	n = 658	n = 2,353	n = 9,465

***Working age adults (age 18 – 64 years). Includes felonies and gross misdemeanors.*

Differences in arrest rates by housing status may reflect program eligibility requirements and landlord selection processes. Housing assistance programs and landlords commonly screen on criminal backgrounds and may exclude people who have been arrested. Homeless heads of households with prior arrests may have been disqualified for some housing assistance programs, not applied for housing assistance because they thought they were not eligible, or had difficulty in finding landlords who would rent to them. Following HUD rules, PHAs do deny housing for people who have committed certain serious offenses.[4] LIHTC tenants are often selected by private management companies and may face even more rigorous selection policies. In contrast, some HMIS assistance programs may accept clients who have been arrested or target ex-offenders to mitigate homelessness among this high-risk population.

Residential Mobility

Measuring residential mobility/instability

Using month-by-month address information from multiple social service programs recorded in our Client Services Database (CSDB), we identified residential moves over the 36 months prior to the index month for each TANF household.[5] Moving in and of itself is not necessarily problematic—households may move due to changes in family composition, job opportunities, or to be closer to support networks. Frequent moves, however, may imply instability or efforts to avoid homelessness. For children, any move can be destabilizing, but frequent moves can disrupt daily routines, schooling or relationships and can negatively impact social, educational and behavioral outcomes (Adam and Chase-Lansdale, 2002; Hutchins *et al.*, 2013).

Residential mobility of TANF households

Residential mobility is higher for TANF households in King County than for other county households. In the 12 months prior to the index month, 60 percent of the TANF households moved at least once, while only 19 percent of King County residents were found to move in a one-year period (U.S. Census Bureau, 2012 American Community Survey (ACS)). Low-income households are expected to move more often than high-income ones, who are more likely to be homeowners or financially stable. TANF households, however, appear to move even more frequently than other low-income households. According to the 2012 ACS data, 31 percent of low-income King County residents (those in poverty) moved at least once in the past 12 months, compared to 60 percent of the TANF households.

Looking at a longer, 36-month period prior to the index month, we found that 86 percent of the SFY 2011 TANF households moved at least once and 20 percent moved five or more times in the prior 36 months.
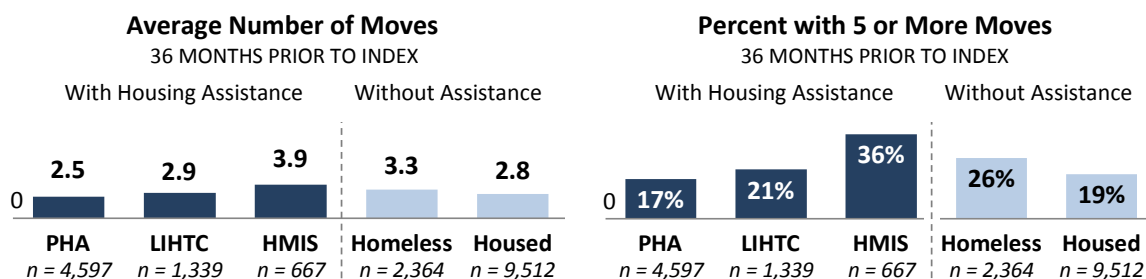
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[4] HUD regulations require that PHAs deny housing to convicted sex offenders and individuals convicted of arson or methamphetamine production. Restrictions on lesser offenses are at the discretion of individual housing authorities.
[5] See the technical notes for a description of the residential mobility measures.

Residential Mobility by Housing Status

Residential mobility varied by housing status. The households served by PHAs moved the least, while households receiving assistance to address homelessness (recorded in HMIS) and those identified as homeless without housing assistance (identified in ACES) were the most mobile. Specifically, the PHA households had a lower average number of moves in the 36-month period prior to their index months and a smaller proportion of high-frequency movers. Households living in LIHTC units and those who were housed without housing assistance had similar mobility rates that were slightly higher than those of the PHA-assisted TANF households.

Overall, residential mobility rates were highest among the two groups with a recent history or risk of homelessness—those served by HMIS programs and those who were homeless without any housing assistance as of their first month on TANF in SFY 2011.

Average Number of Moves					Percent with 5 or More Moves				
36 MONTHS PRIOR TO INDEX					36 MONTHS PRIOR TO INDEX				
With Housing Assistance			Without Assistance		With Housing Assistance			Without Assistance	
2.5	2.9	3.9	3.3	2.8	17%	21%	36%	26%	19%
PHA	LIHTC	HMIS	Homeless	Housed	PHA	LIHTC	HMIS	Homeless	Housed
n = 4,597	n = 1,339	n = 667	n = 2,364	n = 9,512	n = 4,597	n = 1,339	n = 667	n = 2,364	n = 9,512

The HMIS-program recipients averaged 3.9 moves in the 36 months prior to the index compared to 3.3 moves by homeless households not receiving housing assistance. The higher average mobility of the HMIS recipients may be due, in part, to a higher proportion of high-frequency movers: 36 percent of the HMIS households moved five or more times in the prior 36 months compared to 26 percent of the homeless who were not receiving housing assistance.

Among the five housing status categories, those with PHA assistance likely have the least flexibility in moving and more protections against sudden housing disruptions. For example, tenant-based voucher holders are generally required to sign a one-year lease with private landlords, and project-based voucher holders and public housing tenants have a limited pool of housing options from which to choose. Each of these conditions reduces the likelihood of frequent moves.

Summary

Using linked administrative data from multiple sources, we examined the housing status of 17,471 households in King County that received TANF benefits in at least one month in SFY 2011. Slightly over half were living in housing obtained **without** any direct public housing assistance, one third were living in housing supported by one or more housing assistance programs (PHAs, LIHTC, HMIS), and the remaining 14 percent were unstably housed or homeless and not receiving housing assistance. Using housing status identified in the first month in SFY 2011 in which a household received TANF, we found interesting differences and similarities between the heads of households in their use of social services, evidence of physical and behavioral health problems, employment rates and earnings, arrest rates, and residential mobility rates over the preceding 36 months.

Use of PHA and LIHTC assistance was associated with fewer moves over time and a smaller proportion of households moving frequently (5 or more times in the prior 36 months). Receipt of three major types of social services designed to help stabilize and support families and children—TANF, Basic Food, and Medical—was higher among households that received some form of housing assistance than among those who did not, as measured by both higher proportions receiving social services and longer average periods of participation in the 36 months before the SFY 2011 index month. The higher service use rates found for housing-assisted clients may reflect, in part, greater connection to social services through their relationships with housing service providers, or a higher level of need over a longer period of time.

On three measures of physical and behavioral health—chronic illness, treatment for injuries, and any mental health problem—the rates were slightly higher for the heads of households receiving some form of housing assistance than for homeless or housed households not receiving assistance. Since these measures are based on the presence of a diagnosis, treatment, or prescription in the medical record, the rates could have been affected by the higher average number of months of medical eligibility for those with housing assistance compared to those without. With more months of medical coverage, an individual has a greater opportunity to seek medical attention in which a diagnosis could be made or a treatment given. Thus, future analyses should control for the length of time receiving medical coverage in order to determine if the incidence of physical or behavioral problems are actually related to one's housing status.

Being at risk for homelessness in the index month or recent years was related to somewhat higher rates of receipt of services from Children's Administration, substance abuse problems, arrest rates, and residential mobility. Each of these measures is a potential signal for deeper issues that may undermine the health and well-being of individuals and families. Further analyses would be needed to determine if housing assistance programs may mitigate the effects of underlying problems.

Although we describe similarities and differences based on housing status of TANF households, we did not conduct statistical tests of differences, control for differences in group composition, or try to identify underlying causes. Therefore, our results are merely descriptive and exploratory. As such, this report may help identify potential avenues for future research or policy discussions. Given the complexity of housing assistance programs and the number of factors that contribute to either positive or negative outcomes for individuals and families receiving help from housing and social service programs, further analyses would need to control for underlying characteristics and risk factors that may be associated with the receipt of housing assistance before assessing outcomes from the use of housing services and residential stability.

STUDY POPULATION

The study population is 17,471 households that received TANF in at least one month of SFY 2011 and who lived in King County at some point in the year. Data pertain to the adult head of household for 1- and 2-parent TANF assistance units based on their first month of assistance in the fiscal year. Child-only households are excluded from analyses. The first month of assistance in the fiscal year is used throughout analyses as the reference ("index") month. Analyses are based on the household's housing status as of their index month and service use or other characteristics during the 12 and 36 months prior to the index month. Data are from July 2008 through June 2011, with each household's analysis period varying in accordance with their SFY 2011 index month.

DATA SOURCES

The Seattle, King County and Tacoma Housing Authorities provided data on receipt of housing assistance for all individuals receiving housing assistance between 2003 and 2012 through the low income public housing, and tenant- and project-based Housing Choice Voucher programs.

The U.S. Department of Housing and Urban Development provided data on receipt of housing assistance for all individuals receiving housing assistance between 2000 and 2012 through the low income public housing, and tenant- and project-based Housing Choice Voucher programs.

LIHTC addresses are publicly available online from HUD. The Washington State Housing Finance Commission provided additional address information identifying LIHTC properties with expired tax credits that were no longer providing low-income housing during the study period.

Department of Commerce Homeless Management Information System data identified clients who received housing assistance through the emergency shelter, transitional housing, homelessness prevention/rapid rehousing, and/or permanent or permanent supportive housing programs. Clients who received only non-housing services are excluded.

DSHS' Integrated Client Database (ICDB), as described in Mancuso (2014), is "a longitudinal client database … containing over a decade of detailed service risks, history, costs, and outcomes. ICDB is used to support cost-benefit and cost-offset analyses, program evaluations, operational program decisions, geographical analyses and in-depth research. … The ICDB draws information from over 30 data systems across and outside of DSHS and is created by extracting and matching client records for DSHS clients from administrative data collected by DSHS and other state. The ICDB includes the following for each client, by date: identifiers, service history and service cost across DSHS, demography, geography of residence and service, risk indicators, outcomes, birth and death records, medical diagnoses, medical costs, prescription drug use, alcohol and drug problems, mental illness indicators, homelessness, functional disability status, chronic health conditions, criminal justice encounters, incarcerations, employment status, and wages. ICDB information is monitored for consistency and accuracy.... Strict confidentiality standards are in place to ensure protection of personal client information." For this report, the following sources of data were used from the ICDB:

- RDA's Client Services Database provided a common identifier for linking client information from multiple data sources, measures of demographic and household characteristics, and address data used in the residential mobility measure and LIHTC residence identification process described below.
- DSHS Automated Client Eligibility System (ACES) provided information about the receipt of Economic Services Administration's Basic Food and TANF programs.
- Office of Financial Management (OFM) eligibility data provided information on whether or not individuals had DSHS medical coverage.
- Children's Administration data provided information about the receipt of child welfare services.
- Physical and behavioral health indicators and use of services are based on data from Medicaid, the Division of Behavioral Health and Recovery, and Washington State Patrol AOD-related arrest records.
- Washington State Employment Security Department (ESD) Unemployment Insurance wage data provided information on quarterly earnings, which was used to create a measure of employment status (an individual was considered employed if he or she had greater than zero earnings in a year).
- Arrest data from the Washington State Patrol (WSP) identified clients who had been arrested for felony or gross misdemeanor offenses into the WSP arrest database. Misdemeanors may be understated in the analyses since local jurisdictions are not required to report them to the WSP.

DATA LINKAGE

HUD and the Seattle, King County and Tacoma housing authorities provided personal identifiers (names, social security numbers and dates of birth) for all individuals who received subsidized housing. The identifiers were used to link the PHA nd HUD records to the CSDB to identify shared clients.

ADDRESS ASSIGNMENT FOR LOW-INCOME HOUSING TAX CREDIT (LIHTC) PROPERTIES

Using the publicly available addresses for LIHTC properties in King County acquired on-line from the U.S. Department of Housing and Urban Development (HUD), we investigated several methods to link those addresses to those of TANF clients. We addressed issues relating to differences in address geocoding, adequacy of software matching processes, and the fact that some LIHTC properties encompass multiple buildings on a single parcel. We found that both address-to-address and geographic coordinate matching processes failed to produce a reliable match between addresses of clients and LIHTC units. We achieved the most parsimonious solution by using ArcGIS 10.1 (ESRI) software and geographic data on tax assessor's parcels from the King County Geographic Information System (GIS). Locations of the LIHTC properties and TANF clients were spatially joined to the parcel layer in ArcGIS. Clients located inside a parcel containing an LIHTC property or within 200 feet of an LIHTC parcel boundary were counted as residents of the property. We chose 200 feet as the threshold based on our review of the distribution of TANF client addresses relative to addresses of LIHTC properties. Because the King County GIS parcel data contain street addresses and some property names, they were used to check cases with questionable linkages. Client locations between 200 and 800 feet from an LIHTC property boundary were reviewed directly and reassigned, as appropriate. The resulting TANF client count by LIHTC property closely matched the number of LIHTC residents based on counts from the public housing authorities.

RESIDENTIAL MOBILITY MEASURES

Studies of residential mobility using administrative data typically record a move when a person's postal zip code or, less frequently, Census tract of residence changes (Brown *et al.*, 2012; Cohen *et al.*, 2013; Harding *et al.*, 2013). In order to capture shorter-distance moves (for example, within a neighborhood), a smaller unit of analysis may be desirable. The flexibility to choose any meaningful geographic unit of analysis comes with geocoding of client address data. Two measurement issues are especially relevant when detecting residential mobility using administrative data: the degree to which a change in an address as reflected in a database captures a true residential change, and a possible geocoding positional error (Jacquez, 2012; Zandbergen *et al.*, 2012).

RDA's Client Services Database (CSDB) obtains client addresses from multiple data systems across DSHS. The vast majority of these are regular postal addresses for a client's place of residence while some contain only partial residential address information or represent a place of service. CSDB staff perform processes to standardize and geocode these addresses each quarter using industry standard software to maintain consistency and accuracy. A multi-step process is used to select the most likely, or "best," client address for a given time period. Changes over time in the client's "best address," the associated geographic coordinates, or both usually signal a residential move.

In some cases the assigned "best address" may change simply due to minor changes in how the address has been recorded in the data source(s). In other instances, a change in geographic coordinates may be an artifact of processing algorithms used to assign coordinates for zip code-only or other atypical addresses. Given a degree of uncertainty associated with the data, we have chosen to count a residential move if a change in geographic coordinates leads to a change in the Census block identified as the geographic area of residence. Census blocks are small enough, especially in urban areas, to capture short-distance, neighborhood, or other close-by moves. Yet they are large enough to, essentially, ignore pseudo-moves.

We assigned a 2010 Census block ID to geographic coordinates associated with a given client address using ArcGIS 10.1 (ESRI). A residential move was flagged when a Census block ID changed between two time periods. For cases with zip code-only addresses, we counted a change in the zip code as a residential move. For atypical address situations, we used a custom-built geographic area type using a unique combination of geographies (county, city, school district, zip code, and legislative district) and counted a residential move when the uniquely created geographic unit changed for a client over time.

Address records for TANF clients are among the most accurate and complete among DSHS records. Furthermore, fewer geocoding errors are found in the most urban counties (Sonderman *et al.*, 2012). As a result, since this study focused on TANF clients in King County, we were able to measure residential mobility at the Census block level using 95 percent of the changes in addresses or geographic coordinates that we identified during SFY2008-2011 for our study population.

REFERENCES

Adam, E.K. and Chase-Lansdale, P.L. (2002). Home Sweet Home(s): Parental Separations, Residential Moves, and Adjustment Problems in Low-Income Adolescent Girls. Developmental Psychology, Vol 38(5), Sep 2002, 792-805.

Brown, D., Benzeval, M., Gayle, V., Macintyre, S., O'Reilly, D., & Leyland, A. H. (2012). Childhood Residential Mobility and Health in Late Adolescence and Adulthood: Findings From the West of Scotland Twenty-07 Study. Journal of Epidemiology and Community Health, 66:942-950.

Cohen, E., Yantzi, N., Guan, J., Lam, K., & Guttman, A. (2013). Residential Movement Patterns of Families of Young Children with Chronic Conditions in Ontario, Canada: A Population-Based Cohort Study. International Journal for Equity in Health, 12:62.

Coley, R. L., Leventhal, T., Lynch, A.D., & Kull, M. (2013). Relations Between Housing Characteristics and the Well-Being of Low-Income Children and Adolescents. Developmental Psychology, Vol 49(9), 1775-1789.

Cunningham, M. & MacDonald, G. (2012). Housing as a Platform to Improving Education Outcomes among Low-income for Children. The Urban Institute. http://www.urban.org/publications/412554.html.

Gilmer, T., Kronick, R., Fishman, P., and Ganiats, T. G. (2001). The medicaid R-x model - Pharmacy-based risk adjustment for public programs. Medical Care, 39(11), 1188-1202.

Harding, D.J., Morenoff, J.D., & Herbert, C. W. (2013). Home is Hard to Find: Neighborhoods, Institutions, and the Residential Trajectories of Returning Prisoners. The Annals of the American Academy of Political and Social Science, 647(1):214–236.

Hutchings HA, Evans A, Barnes P, Demmler J, Heaven M, et al. (2013). Do Children Who Move Home and School Frequently Have Poorer Educational Outcomes in Their Early Years at School? An Anonymised Cohort Study. PLoS ONE 8(8): e70601.

Jacquez, G. (2012). A Research Agenda: Does Geocoding Positional Error Matter in Health GIS studies? Spatial and Spatio-Temporal Epidemiology, 3(1): 7–16.

Kronick, R., Gilmer, T., Dreyfus, T., and Lee, L. (2000). Improving Health-Based Payment for Medicaid Beneficiaries: CDPS. Health Care Financing Review, 21(3), 29-64.

Mancuso, D. (2014). DSHS Integrated Client Database. Department of Social and Health Services, Research and Data Analysis Division, December (Report 11.205).

Newman, S. (2008). Does Housing Matter to Poor Families? Journal of Policy Analysis and Management, 47(4), 895-925.

Newman, S. (2011). Housing and Child Development. Children and Youth Services Review, 32(9), 1165-1174.

Phinney, R. (2009). Residential Mobility, Housing Problems, and Child Outcomes in the Women's Employment Study. Washington, DC: Center for Housing Policy.

Sonderman, J.S, Mumma, M.T., Cohen, S.S., et al. (2012). A Multi-Stage Approach to Maximizing Geocoding Success in a Large Population-Based Cohort Study Through Automated and Interactive Processes. International Scientific Journal of the Global Network for Geospatial Health, 6(2): 273–284.

U.S. Census Bureau. (2012). American Community Survey, 2012 American Community Survey 1-Year Estimates, Table B07001, generated by Irina V. Sharkova using American FactFinder, http://factfinder2.census.gov, (April 8, 2014).

U.S. Government Accountability Office. (2010). K-12 Education: Many Challenges Arise in Educating Students Who Change Schools Frequently. http://www.gao.gov/products/GAO-11-40.

Zandbergen, P.A., Hart, T.C., Lenzer,K.E. , & Camponovo M.E. (2012). Error Propagation Models to Examine the Effects of Geocoding Quality on Spatial Analysis of Individual-Level Datasets. Spatial and Spatio-Temporal Epidemiology, 3(1): 69–82.