Income Structures and Trends of People Experiencing Homelessness in Canada

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Data – New linked datasets

❑ **The Census of Population-Homelessness tax linked data**
- The Canadian Census of Population is conducted every five years. Residents of shelters, or people experiencing homelessness are enumerated on Census day, usually in May.
- **Census 2011 and 2016**
- **Tax records from 2001 to 2018,** including T4, T4E, T5007, and T1FF

❑ **Canadian Housing Survey (CHS) tax linked data**
- The CHS is conducted every two years. It collects information on housing experiences and housing needs from a sample of households. Includes questions on lifetime homeless experiences.
- **CHS 2018**
- **Tax records from 2008 to 2017**, including T4 and T1FF

Data – Linked census dataset

❑ In the Census, homelessness is identified as being enumerated in **three types of shelters**

- Shelters for persons lacking a fixed address
- Shelters for abused women and children
- Other type of shelters and lodging with assistance

❑ Homeless shelter residents in **2011** and **2016 Census** linked to tax data

Linkage rate

20,170

22,190

14,615

20,000

8,815

10,000

43.7%

65.9%

0

2011   ▨ Census ■ Linked to tax data   **2016**
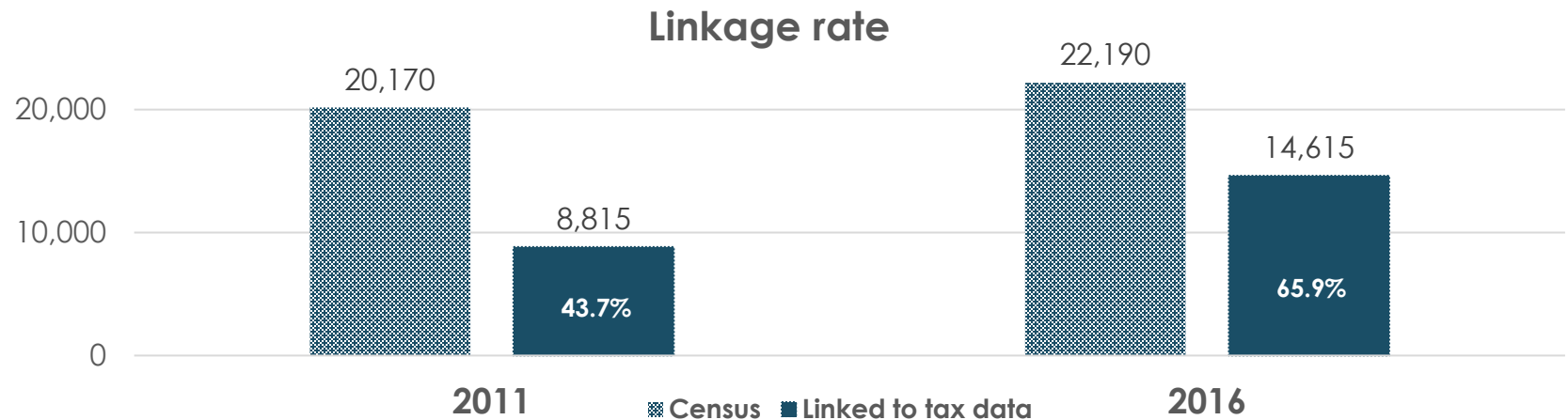
Data – Linked census dataset

❑ **Benefits:**

- Large sample size

- National coverage

- Longitudinal data of income/employment

- Homelessness status observable in 2011 and 2016

❑ **Limitations:**

- Short form census - contains limited demographic information (e.g. age, sex, and marital status)

- Homelessness status only observable in two years

- Employment information can only be inferred from T4/T4E – "temporary" or informal employment may not be captured

Literature – homelessness, employment and income

❑ While the majority are unemployed, a large percentage of people experiencing homelessness had jobs, or expressed a desire to work (Debras et al., 2004, Poremski et al., 2015).

❑ Employment can help people break the cycle of homelessness by providing necessary income, self-esteem, and social inclusion (Ratcliff et al., 1996; Steen et al., 2012; Johnstone et al., 2015).

❑ Those who are currently or recently employed are more likely to experience a shorter term of homelessness than those who have never worked or have a long history of unemployment prior to becoming homeless for the first time (Yong, 2000; Carol et al., 2005).

Research questions

- ☐ Is there **variation in different types of income structures** among people experiencing homelessness?

- ☐ Do people experiencing homelessness exhibit **heterogeneity in income levels**?

- ☐ What is the impact of **duration of employment on housing outcomes** of people experiencing homelessness?

Methodology and key variables

❑ **Descriptive statistics and linear regression models**

   ❑ Dependent variable
   ▪ Housing outcome in 2016
      ▪ Housed: people linked to a private dwelling in 2016
      ▪ Unhoused/unknown: people were enumerated in homeless shelters or housing status is unknown in 2016
   ❑ Independent variables
   ▪ Employment
      ▪ People who received employment income (from T4 or T4E)
   ▪ Income structure
      ▪ Employment related income
      ▪ Social assistance income
      ▪ Other income
   ▪ Sex
   ▪ Age
   ▪ Marital status/common law
   ▪ Low-income cutoff

❑ The 2008 CPI index is used as the baseline year for adjusting income for inflation

Data – sample used in this analysis

❑ **The Census 2011 Homelessness Cohort**

- ▪ People enumerated as homeless in the 2011 Census, and with linked tax records
- ▪ Aged 16-55 in 2008
- ▪ Excluding people living in collective dwellings other than shelters for people experiencing homelessness in 2016

❑ **Sample size**
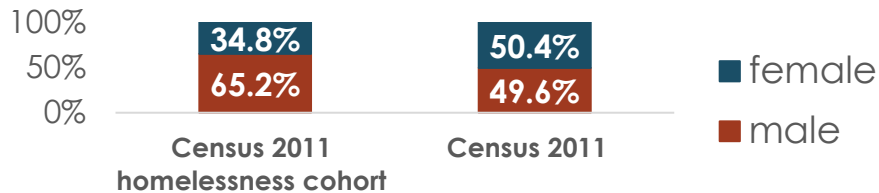
- ▪ The **Census 2011 cohort** includes **6,200** people

❑ **Analysis timeframe:**

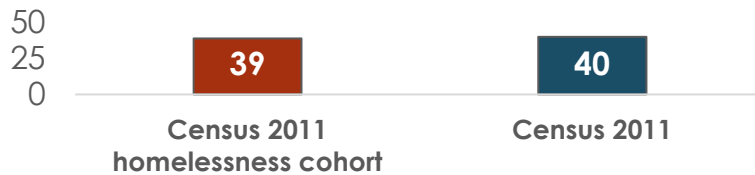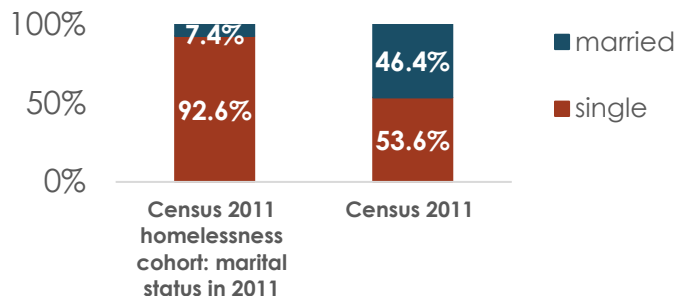- ▪ Ten year period, from **2008-2017**

Descriptive – Demographics

Sex Distribution

	Census 2011 homelessness cohort	Census 2011
female	34.8%	50.4%
male	65.2%	49.6%

Average Age

Census 2011 homelessness cohort	Census 2011
39	40

Marital Status Distribution

	Census 2011 homelessness cohort: marital status in 2011	Census 2011
married	7.4%	46.4%
single	92.6%	53.6%

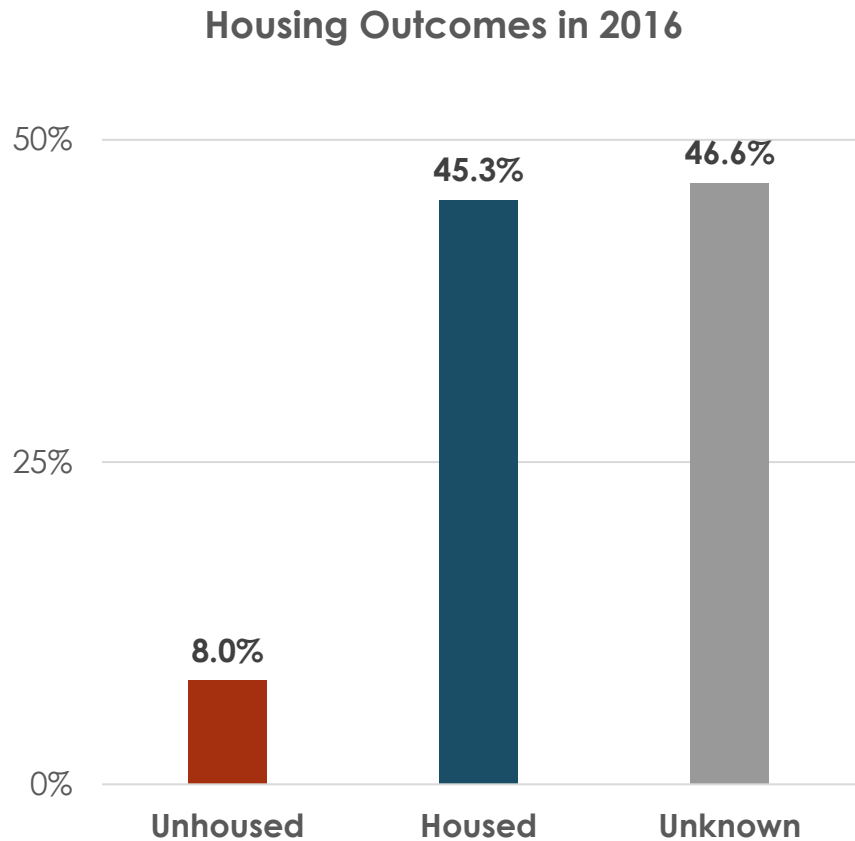**Compared to the general Census population, the 2011 cohort is:**

- **More likely to be male**
  - 65% male vs. 50% male

- **Similar in age**
  - 39 vs. 40

- **Predominantly single**
  - 93% single vs. 54% single

Descriptive – Housing outcomes

Housing Outcomes in 2016

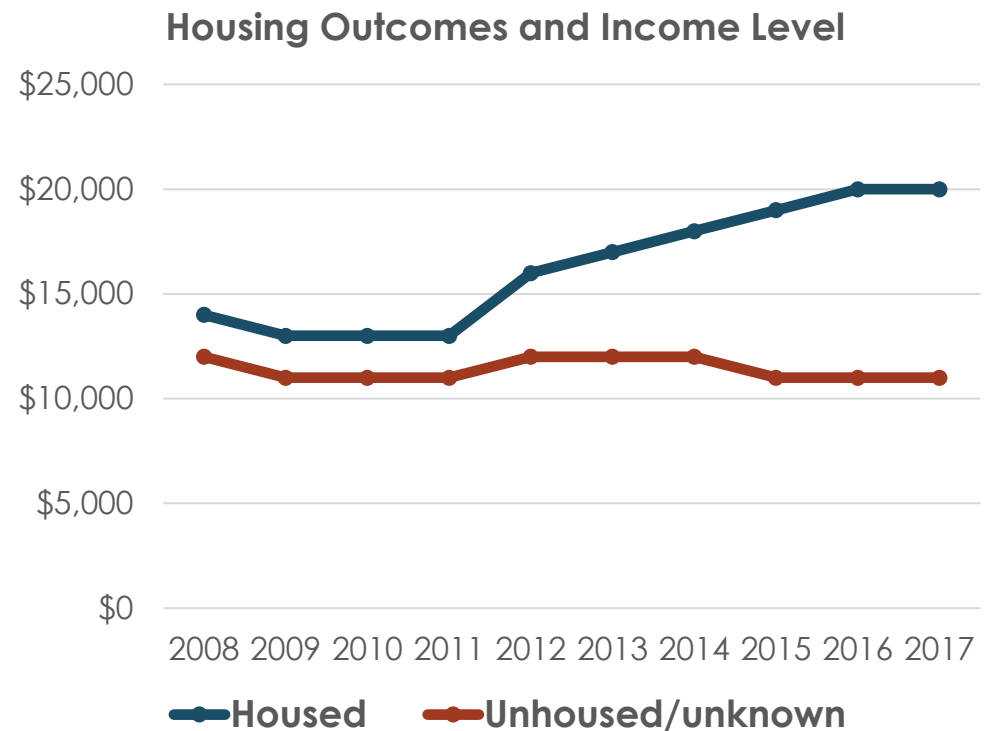**2016 housing outcomes for the 2011 cohort:**

- 8% in shelters

- 45% in private dwellings

Descriptive – Income level and housing outcome

## While similar in 2011, annual total income of those housed in 2016 increased steadily beginning in 2012

Among the 2011 cohort:

- People who were housed in 2016 saw their income increase steadily starting in 2012.

- The income of those who were unhoused/unknown in 2016 remained relatively stable and comparatively lower.

Housing Outcomes and Income Level

Employment is the primary driver of increases in total income among people housed in 2016


Income Structures of People Housed
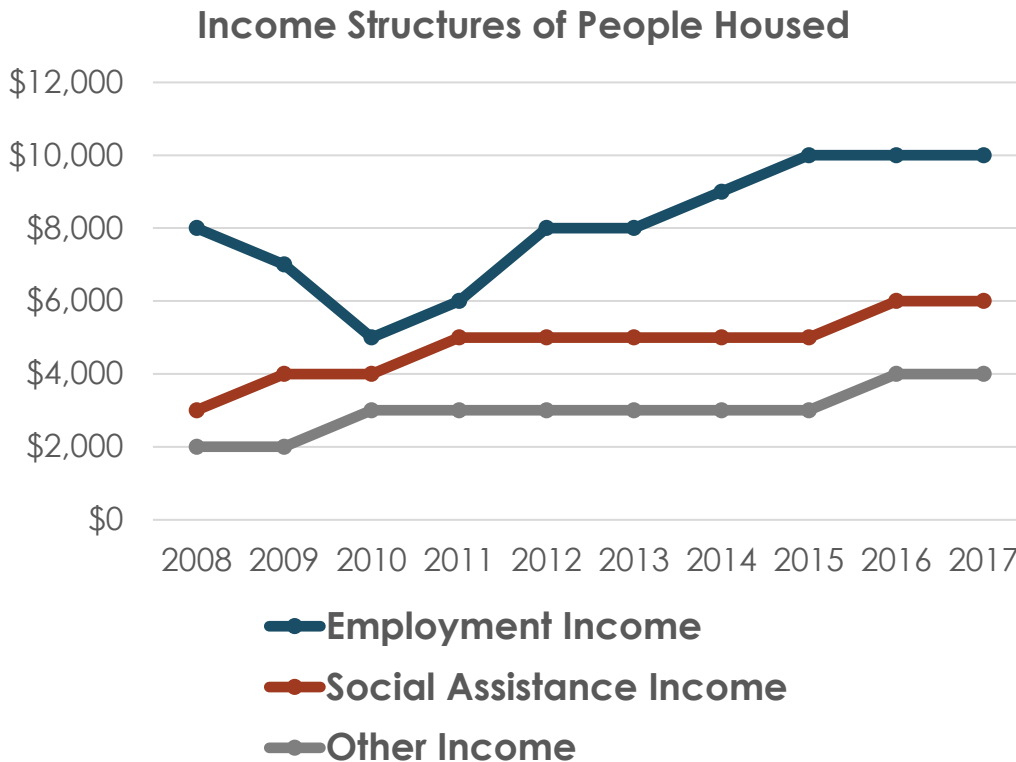
Among those who were housed in 2016:

- Employment income fell from 2008 to 2010, before increasing in 2011.

- Income from social assistance and other sources went up steadily but remained fairly stable.

Descriptive – Income level and income structure

In 2016, income level and structure was relatively static for those who were unhoused/unknown

Income Structure of People Experiencing Homelessness, or Housing Status Unknown
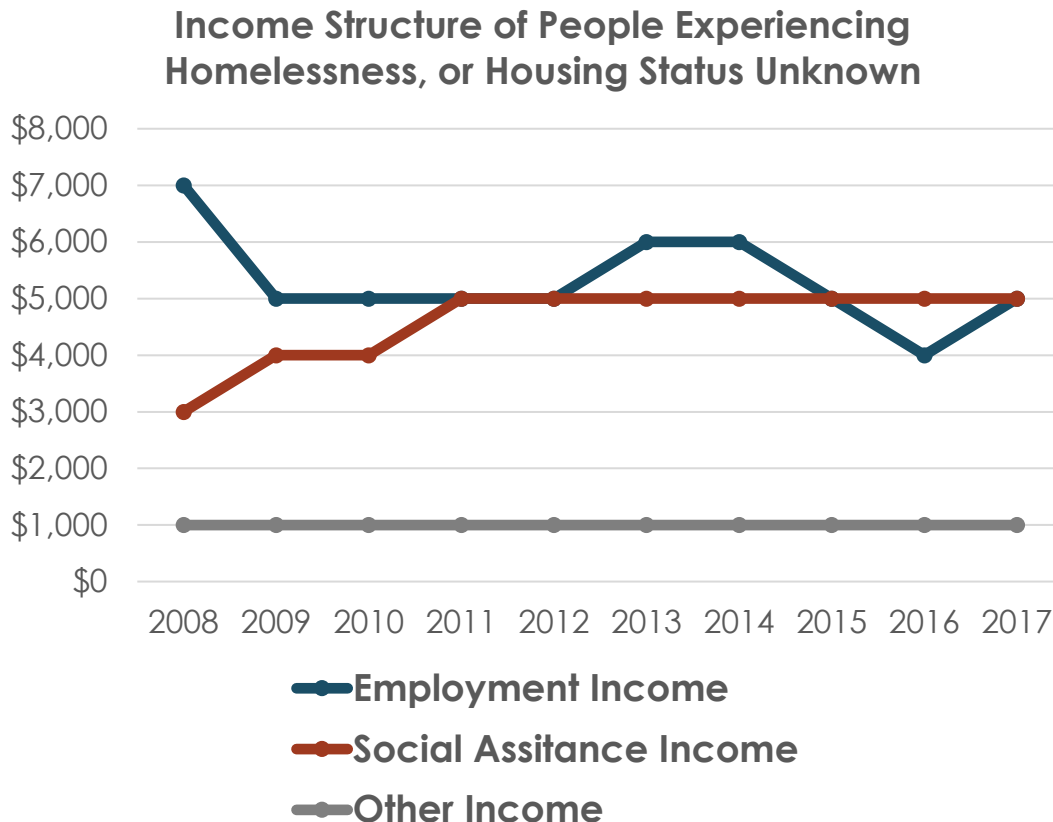
**Among those who were unhoused/unknown in 2016:**

- Employment income declined overall, beginning in 2009, and again in 2015.

- Income from social assistance and other sources were relatively static.

Descriptive - Employment duration

## The majority (77%) of the 2011 cohort were employed at some point during the ten-year period

Among the 2011 cohort:

- About 40% of the 2011 cohort worked for 6-10 years.

- About 23% never worked during the ten-year period.

Distribution of Employment Duration

	22.8%	37.3%	39.9%
	Employed 0 years	Employed 1-5 years	Employed 6-10 years
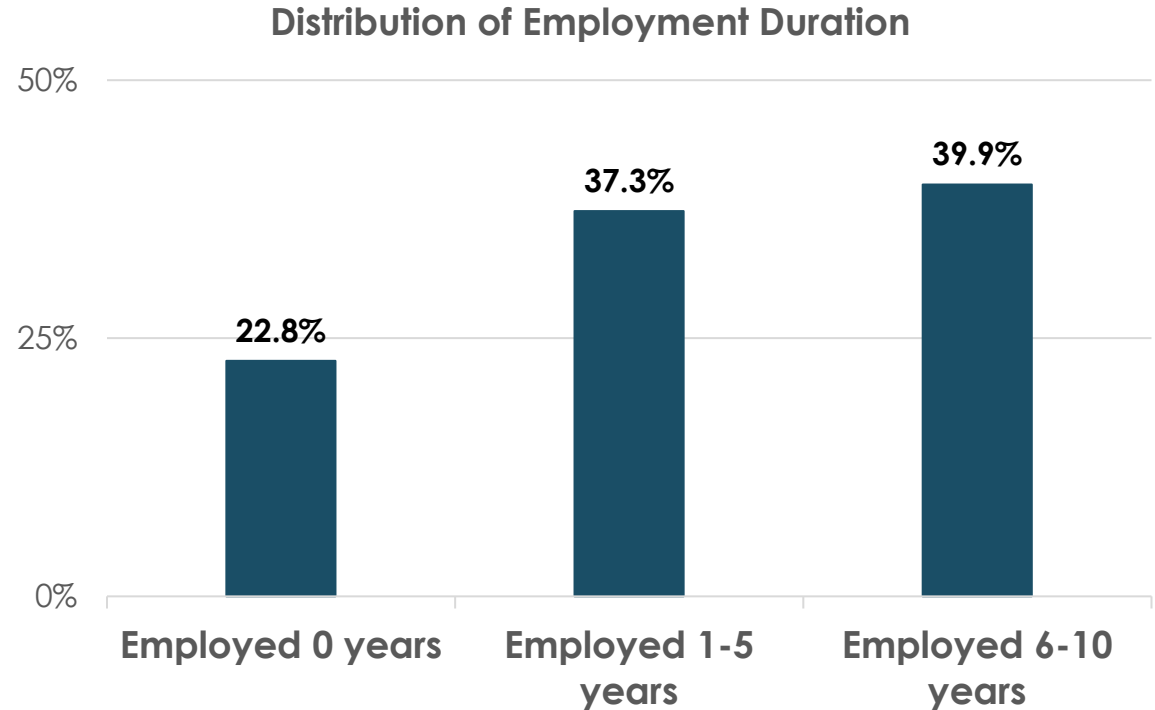
Descriptive - Housing outcomes and employment duration

Housing outcomes improved as the duration of employment increased

Housing Outcomes and Employment Duration
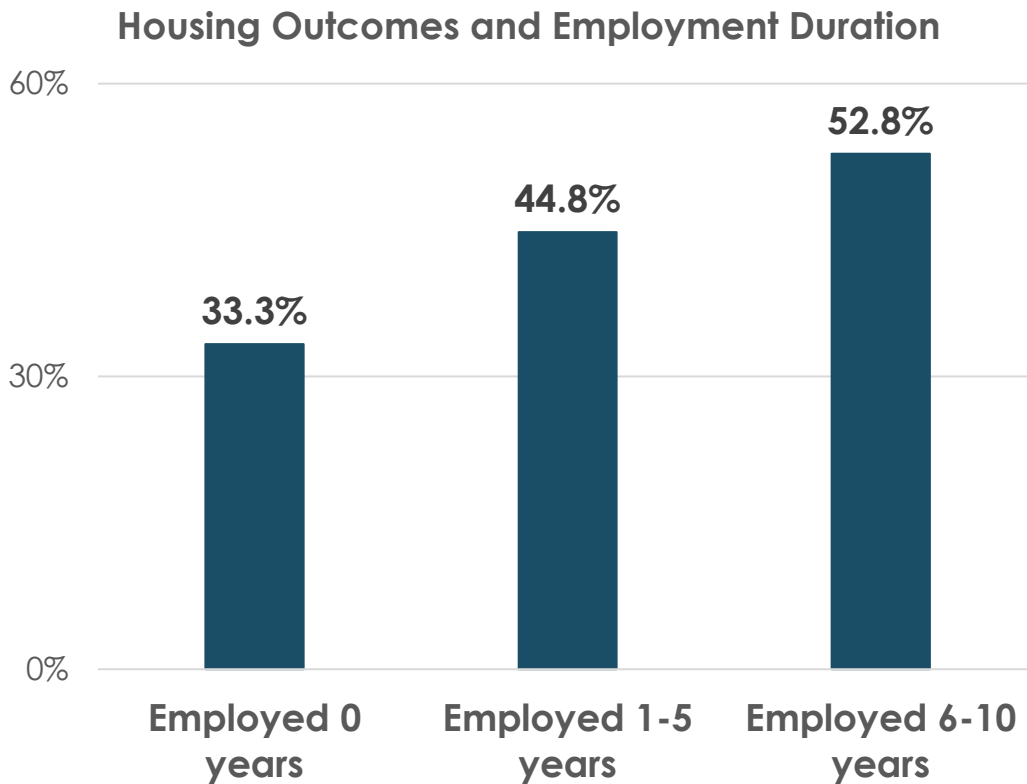
Among the 2011 cohort:

- About 33% of those who never worked during the ten-year study period were housed in 2016.

- About 53% of those employed 6-10 years were housed in 2016.

Descriptive – Low-income cutoff and housing outcomes

Those who were housed in 2016 were less likely to be below the low-income cutoff

- The share of those below the low-income cutoff in 2011 was similar for those who would be housed in 2016 and those who would be unhoused/unknown.

- The difference between the two groups earning less than the low-income cutoff widened in 2016.

Share of People below Low-income Cutoff by Housing Outcome

	Housed	Unhoused/unknown
2011	83.7%	89.3%
2016	68.1%	87.5%
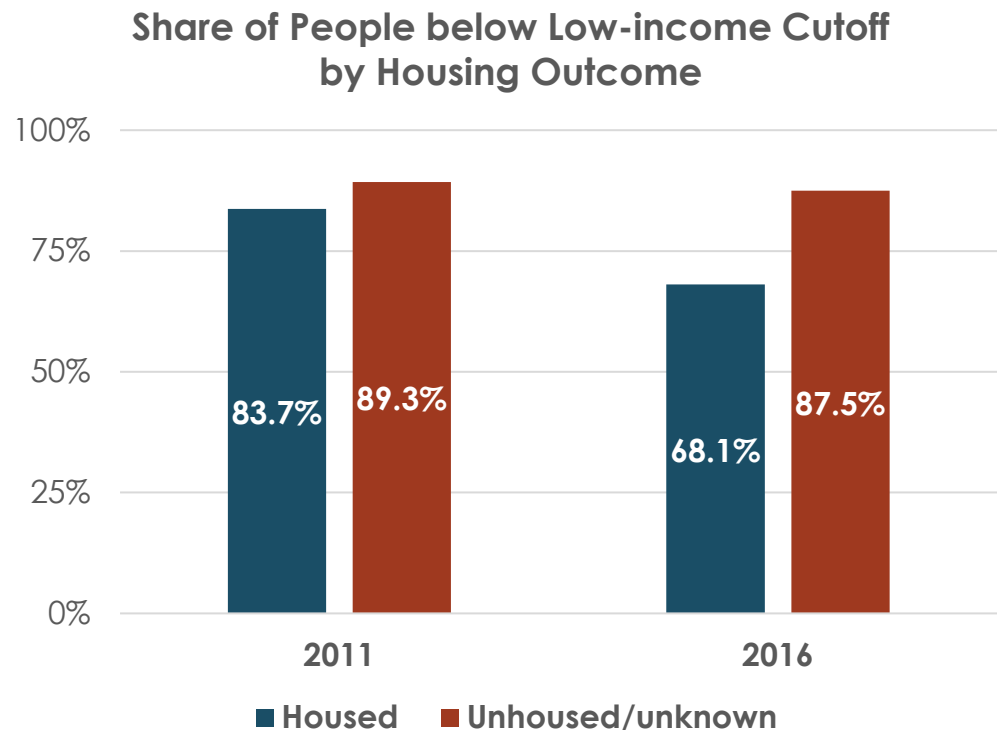
Descriptive - Low-income cutoff and employment duration

As employment duration increases, more people earn income above the low-income cutoff

Employment duration and Low-income Cutoff

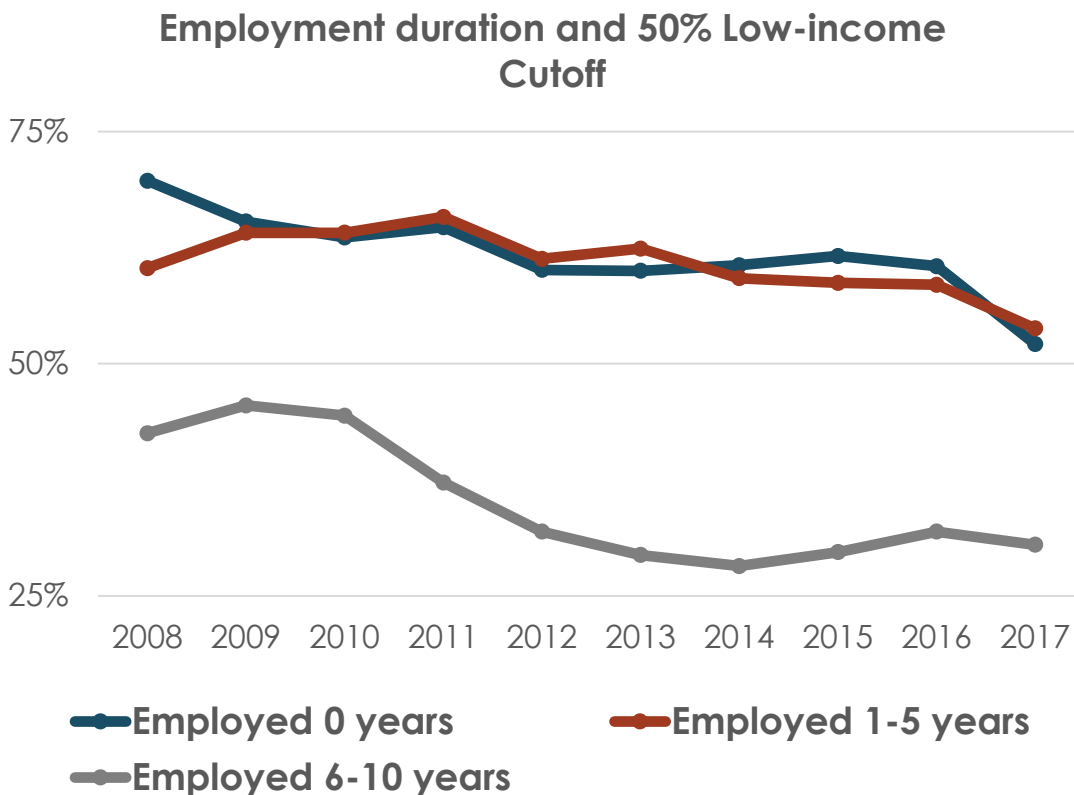- Employed 6-10 years
- Employed 1-5 years
- Employed 0 years
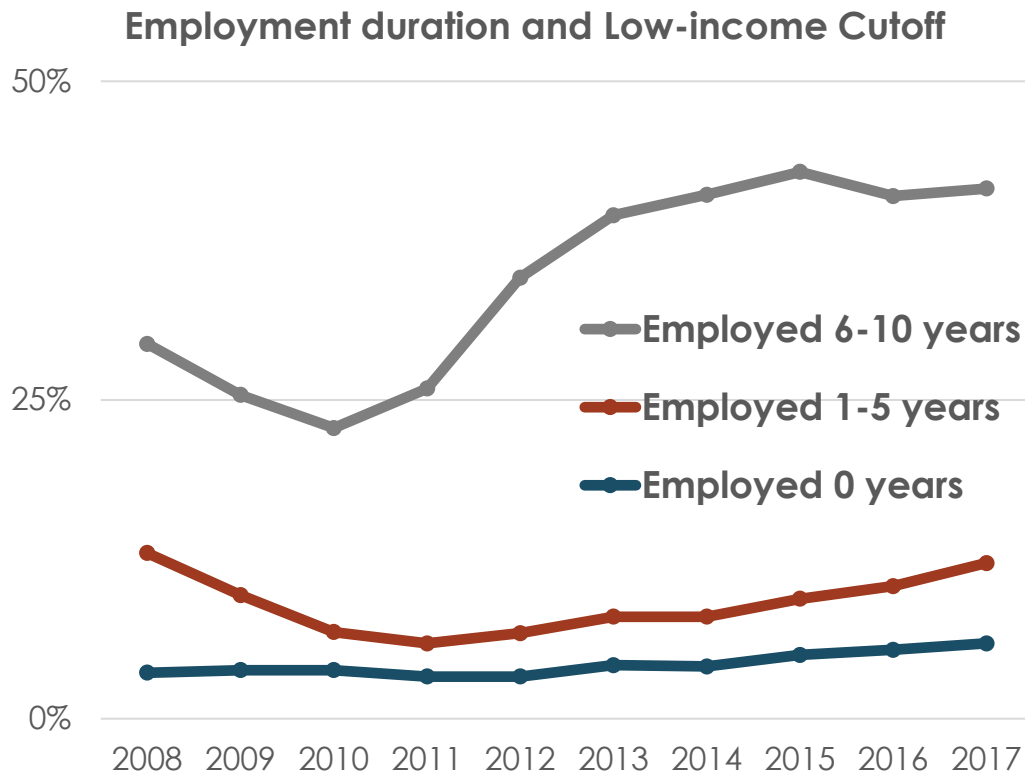
Among the 2011 cohort:

- Those who worked 6-10 years increased from 23% to over 40% above the low-income cutoff.

- About 4% of those who never worked were above the low-income cutoff.

Descriptive - Low-income cutoff and employment duration

Those who worked 6-10 years were less likely to be below 50% of the low-income cutoff

Employment duration and 50% Low-income Cutoff

Legend: Employed 0 years, Employed 1-5 years, Employed 6-10 years

Among the 2011 cohort:

- About 30% of those who worked 6-10 years earned less than 50% of the low-income cutoff in 2017.

- Over 50% of those who did not work, or worked 1-5 years, earned less than 50% of the low-income cutoff.

Descriptive - Employment duration and sex

Females were less likely to be employed, and less likely to work 6-10 years than males
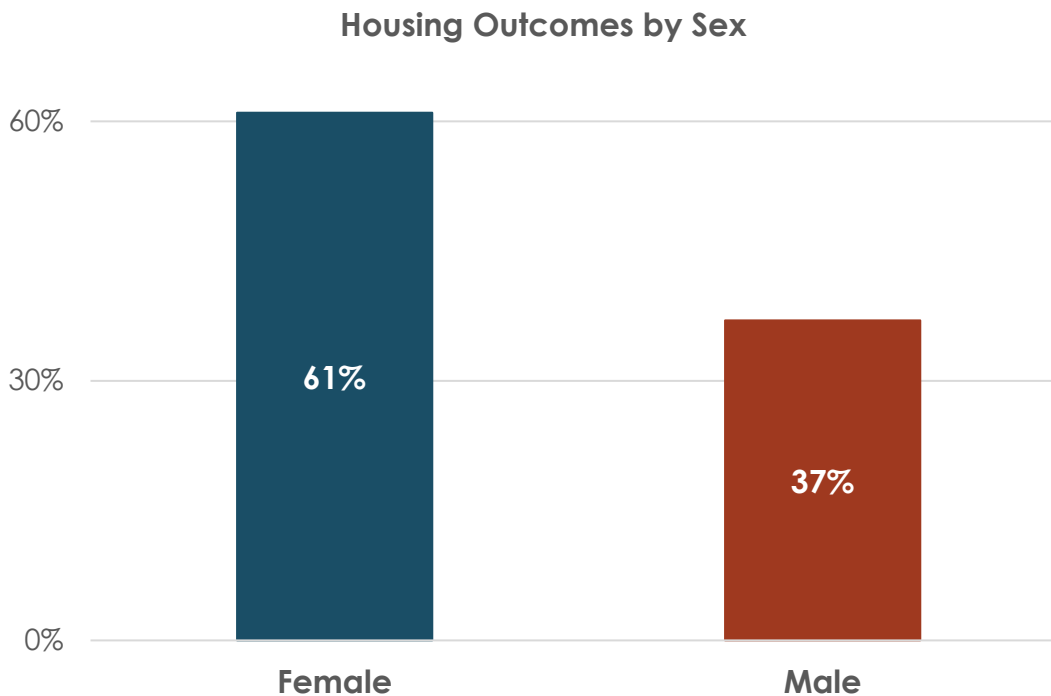
Employment Duration by Sex
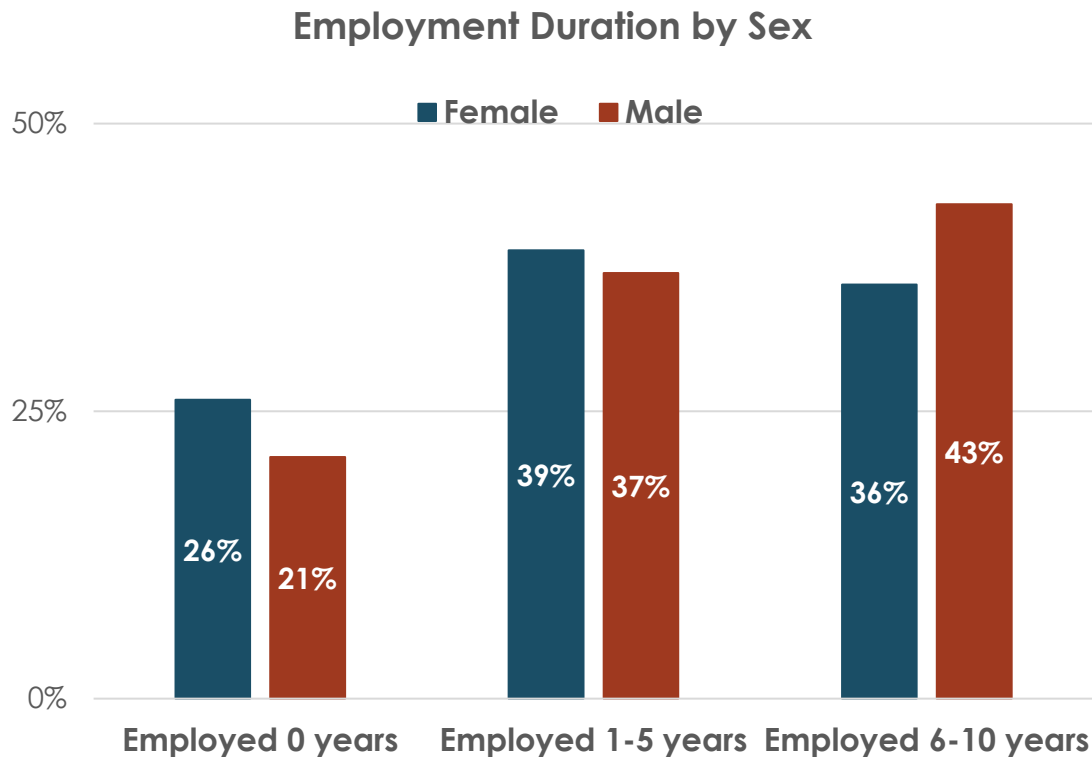
Among the 2011 cohort:

- About 36% of females worked 6-10 years, while 43% of males worked 6-10 years.

- About 26% of females and 21% of males never worked.

Descriptive - Housing outcomes and sex

Females were more likely than males to be housed in 2016

Housing Outcomes by Sex

Among the 2011 cohort:
- About 61% of females were housed in 2016.

- About 37% of males were housed in 2016.

Logistic regression model output (key variables)

Those who were employed at some point had higher odds of being housed in 2016

Housing Outcome =1 if housed in 2016 =0 if homeless in 2016		Odds Ratio	Std. Err.
Employment Duration	Never employed (Reference)		
	Employed 1-5 years	1.632***	0.124
	Employed 6-10 years	1.676***	0.136
Sex	Female (Reference)		
	Male	0.421***	0.025
Age_2008	16-29 (Reference)		
	30-40	0.913***	0.067
	41-55	0.799***	0.054
Low-income cutoff, 2015	Greater than the low-income cutoff (reference)		
	Below the low-income cutoff but greater than 50% of the low-income cutoff	0.747***	0.060
	Below the 50% of the low-income cutoff	0.309***	0.024

*** Significant at 1% level

Logistic regression model output (key variables)

Those who had employment income had higher odds of being housed in 2016

Housing Outcome		Model 1		Model 2	
=1 if housed in 2016 **=0 if homeless in 2016**		Odds Ratio	Std. Err.	Odds Ratio	Std. Err.
Employment Duration	Never employed (Reference)				
	Employed 1-5 years	1.678***	0.132	1.589***	0.126
	Employed 6-10 years	1.856***	0.182	1.539***	0.142
Sex	Female (Reference)				
	Male	0.379***	0.028	0.399***	0.024
Age_2008	16-29 (Reference)				
	30-40	0.880***	0.065	0.897***	0.066
	41-55	0.799***	0.055	0.813***	0.056
Employment income to total income ratio, 2015		1.190***	0.114	-	-
Social assistance income to total income ratio, 2015		-	-	0.611***	0.051

*** Significant at 1% level

Conclusion and discussion

❑ There is **variation in the income structures** of those experiencing homelessness.
  - For most, employment income decreased leading up to 2011.
  - For those who became housed in 2016, all income types increased, especially employment income.
  - For those unhoused/unknown in 2016, all income types were relatively static, with social assistance becoming more prominent.

❑ There is **heterogeneity in the income levels** of those experiencing homelessness.
  - The average total income of people who had at least some employment is higher than those who were never employed.

❑ **Duration of employment** increases **housing outcomes** for those experiencing homelessness.
  - Those that had at least some experience of **employment** in the ten-year period had higher odds ratio of being housed in 2016.

Next steps

- Extend analysis to the Census 2016 cohort.

- Examine the viability of including the Census 2021 cohort in the Census-homeless dataset.

- Analyze income trends of those with a lifetime of homelessness from the linked Canadian Housing Survey – Tax file dataset, and make comparisons to the Census-Homelessness sample.

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