Rising Rents and Living at Home: Evidence from 2000–2020

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Abstract

From 2000 to 2020, rental costs increased 20 percent faster than average prices. Over the same period, co-residence between parents and their adult children rose by almost 40 percent among individuals from ages 20 through 40. This paper analyzes the effects of rising rents on labour market search behaviour in a model of optional parental co-residence. I show that rent increases consistent with the data account for approximately one third of the observed rise in co-residence. Higher rental costs lead consumers to search more selectively, targeting higher-wage jobs despite lower job-finding probabilities, which results in higher unemployment. In addition, rising rents impose the largest welfare costs on younger workers, whose limited savings make them less able to self-insure against higher housing expenses.

Keywords: co-residence, multi-generational households, informal labour market insurance

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1 Introduction

Rental housing costs have risen sharply in the United States over the past two decades, reshaping the economic environment facing young and middle-aged workers. Between 2000 and 2020, rents increased roughly 20 percent faster than overall consumer prices, raising the cost of independent living for households across the income distribution. Over the same period, co-residence between parents and their adult children grew by nearly 40 percent among individuals ages 20 to 40, a stage of life in which many adults form independent households. The co-movement of these trends suggests that shared housing has become an increasingly relevant response to higher rental costs. This paper examines how rising rents interact with labour market search behaviour when adults have the option to move in with their parents, and quantifies the extent to which higher housing costs can account for the observed increase in co-residence.

The rise in co-residence alongside increasing rental costs reflects the fact that housing expenses constitute a large and inflexible component of household budgets, particularly for younger workers with limited savings. When rents rise, the cost of maintaining an independent household increases, and shared housing with parents represents a natural alternative. Co-residence also interacts with labour market risk because living with parents lowers fixed housing costs and provides partial insurance against income volatility. In this framework, the option to move home functions as an insurance channel, while actual moves home occur when income realisations are sufficiently low that independent living is no longer affordable. This paper examines how rising rents change workers' search behaviour in an environment where adult children can move home, and how these responses shape both co-residence flows and labour market outcomes. To study this mechanism, the analysis leverages a structural model of directed job search with an option to co-reside in order to quantify how rising rents contribute to the observed increase in co-residence and to examine how higher housing costs reshape search behaviour.

The quantitative analysis relies on two sources of empirical evidence. First, the model is calibrated using data from the Health and Retirement Study, which provides long-run linkages between

parents and their adult children and detailed information on living arrangements, labour market outcomes, and parental characteristics. As in Chapter 1, the sample is restricted to individuals aged 20 to 40 in order to limit confounding motives for co-residence that arise later in the life cycle, particularly those related to parental health and caregiving needs. Second, the evolution of rental costs is measured using standard price indices from the Federal Reserve Bank of St. Louis, which document the substantial rise in rents relative to overall consumer prices since 2000. These data provide the empirical foundation for the rent increases fed into the model and for evaluating the extent to which rising housing costs can account for observed changes in co-residence flows.

The model features a directed search environment in which workers choose the submarket in which to search, trading off higher wages against a greater risk of unemployment. Submarkets differ in both posted wages and job-finding probabilities, and workers select among them based on their productivity and assets. Search behaviour is forward-looking: workers choose submarkets to balance the expected value of high-wage matches against the risk of extended unemployment spells. Co-residence, consumption, and saving decisions are made contingent on the outcome of the search process. After learning whether they are employed or unemployed, all workers choose whether to live independently or with their parents. Individuals differ in their ability to finance independent living: both employed and unemployed workers hold assets, employed workers receive wages, and unemployed workers receive a publicly financed unemployment insurance benefit. Co-residence eliminates housing expenditures at the cost of reduced utility, and thus provides a fallback option that shapes the consequences of searching in submarkets with lower job-finding probabilities.

Rising rents enter the model as an increase in the fixed cost of independent housing, which tightens the budget constraint facing workers and alters the set of submarkets in which independent living is financially feasible. As rental costs rise, fewer submarkets offer wages high enough to support independent living at acceptable levels of unemployment risk, and the value of searching in low-wage, high-probability submarkets declines. Workers respond by reallocating their search effort toward higher-wage submarkets with lower job-finding probabilities, accepting a greater risk

of unemployment because co-residence provides a fallback when matches do not materialise. This shift in search behaviour reduces overall employment by increasing the likelihood that workers remain unemployed and live at home rather than accept matches that fall short of the higher rental threshold. In this way, rising rents compress the menu of viable submarkets and reshape labour market outcomes through their interaction with the option to co-reside.

The quantitative results show that the mechanism embedded in the model can account for roughly one third of the increase in co-residence among adults aged 20 to 40 over the past two decades. Rising rents restrict the set of submarkets in which independent living is feasible, and the resulting shift in search behaviour generates higher co-residence flows and lower employment in equilibrium. High housing costs therefore weaken labour force attachment by making low-wage employment insufficient to support independent living, and they increase the attractiveness of remaining out of work when co-residence provides a viable alternative.

The remainder of the paper proceeds as follows. Section 2 describes the data used to calibrate the model and to document the evolution of rental costs over the past two decades. Section 3 presents the life-cycle model of directed job search with an option to co-reside and outlines the key mechanisms through which housing costs affect search behaviour and living arrangements. Section 4 reports the quantitative results, including the model's ability to account for rising co-residence and the implications of higher rents for employment. Section 5 concludes by discussing the broader labour market consequences of high housing costs and the policy relevance of this insurance.

2 Data

This paper draws on two sources of data: (i) the Health and Retirement Study, which provides the intergenerational data used to calibrate and validate the model, and (ii) price indices from the Federal Reserve Bank of St. Louis, which are used to quantify the increase in rental housing costs between 2000 and 2020. This section summarizes the features of each dataset that are relevant for the analysis.

2.1 Health and Retirement Study

The quantitative analysis uses the Health and Retirement Study (HRS), a biennial panel survey of roughly 20,000 U.S. households that provides repeated linkages between parents and their adult children. The RAND HRS Family File links parent households to approximately 55,000 children through 2018, allowing co-residence status, employment transitions, demographic characteristics, and financial resources to be observed consistently across survey waves. These long-run intergenerational linkages make the HRS well suited for calibrating the life-cycle model and for validating its implications for co-residence behaviour.

Table 1: Co-Residence Share in 2000 and 2018

	2000	**2018**	**Percentage Point Δ**
Co-residence share	0.1061	0.1409	+0.0348

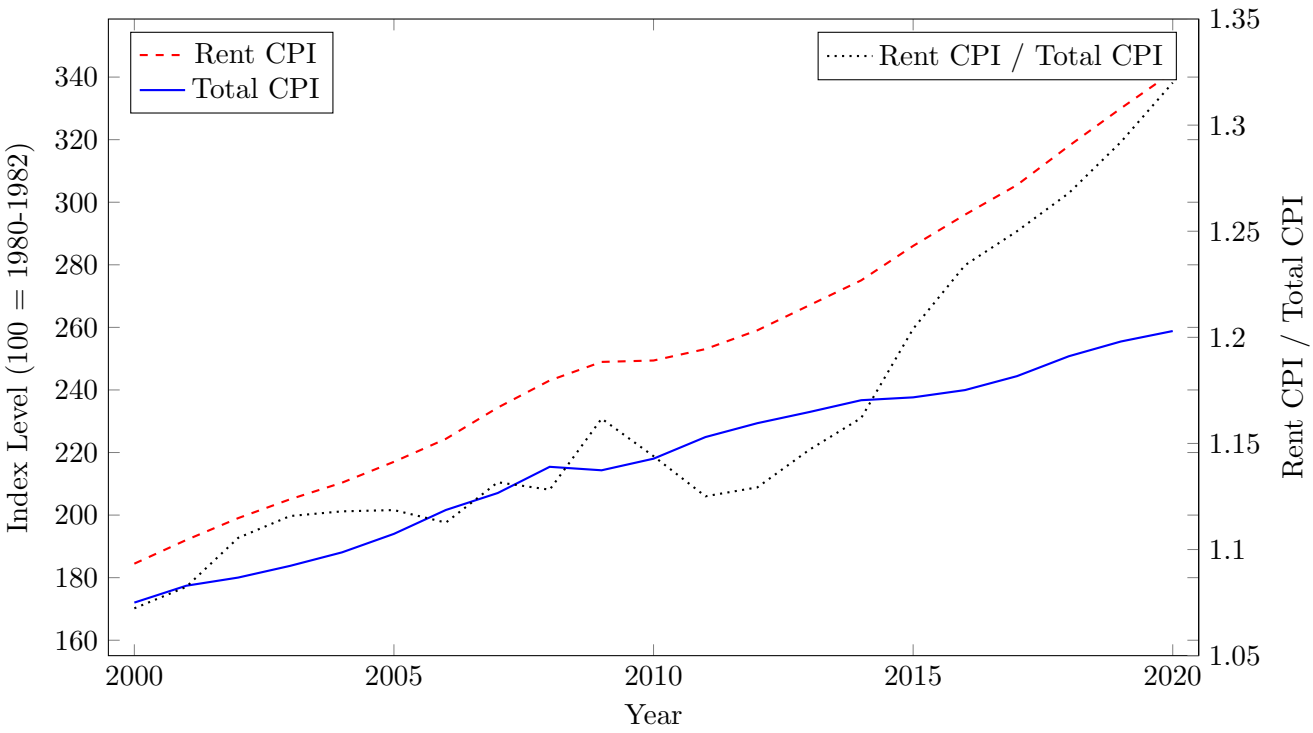
Note: Share of adults aged 20–40 who live with parents in the HRS.

In this chapter, the HRS plays two roles. First, it disciplines the calibration of key life-cycle moments for adults aged 20–40, including employment rates, unemployment transitions, asset holdings, and baseline co-residence flows. Second, it provides the empirical series of co-residence flows from 2000 to 2018 against which the model's predictions are evaluated. The same sample restrictions as in Chapter 1 are applied: the analysis focuses on adult children ages 20–40 and excludes post-secondary students to avoid confounding motives for co-residence related to parental health or caregiving needs. As documented in Chapter 1, eldercare-related co-residence is rare in this age range, with assistance on activities of daily living typically around 1–2 percent. Since this chapter does not rely on identifying the labour market insurance motive directly, the discussion of the HRS is limited to the features relevant for model calibration and validation.

2.2 Rental Price Indices

To measure the rise in rental housing costs relative to overall consumer prices, I use two standard price indices from the Federal Reserve Bank of St. Louis: the Rent of Primary Residence index, which tracks rental housing costs, and the Consumer Price Index for All Urban Consumers, which measures the aggregate price level. Both series are available at monthly frequency; for the purposes of this chapter, I use annual averages for 2000 and 2020 to construct a single point estimate of the increase in rental costs relative to all consumer prices.

Figure 1: Rent CPI, Total CPI, and the Relative Price of Rent, 2000–2020



Note: Consumer price indices for housing costs and in the aggregate from 2000–2020 are plotted along the left axis. The ratio of these two indices is plotted for the same time period on the right axis. This ratio of indices can be interpreted as the relative price of housing compared to all consumption, and it has been increasing sharply since the early 2010s.

Figure 1 plots the evolution of these two indices over time and illustrates the widening gap between rent inflation and overall price increases. This divergence suggests that housing has become

significantly more expensive in relative terms over the previous two decades.

3 Model

This chapter employs the same life-cycle model of consumption, savings, job search, and co-residence developed in Chapter 1. For completeness, this section summarizes the key components of the environment and highlights the modification relevant for studying the effects of higher rental housing costs.

3.1 Environment

Workers progress through the life cycle from labour market entry to retirement, making decisions regarding consumption, savings, search behaviour, and living arrangements. Each period, individuals hold assets a, draw an idiosyncratic productivity ϵ, and face an age-specific productivity term ν_j. Employed workers earn after-tax income $(1-\tau)\phi\epsilon\nu_j$, while unemployed workers receive a government-financed benefit b. Retirees receive a pension S.

Housing choices mirror those in Chapter 1. Individuals may live independently or co-reside with parents until age 40. Independent living provides a utility benefit χ but requires paying a fixed housing cost κ_h. Co-residence eliminates housing expenditures but forgoes the utility benefit. As before, the housing choice is subject to Type-I extreme value taste shocks, generating choice probabilities over living arrangements.

3.2 Directed Search

Unemployed workers choose a submarket indexed by a posted piece rate ϕ, their age j, and productivity ϵ. Submarkets differ in both wages and job-finding probabilities, and workers select among them to balance the value of high-wage matches against the risk of unemployment. The value of search is

$$V_s(j,a,\epsilon) = \max_{\phi} \{f(\theta(j,\epsilon,\phi))V_e(j,a,\epsilon,\phi) + [1 - f(\theta(j,\epsilon,\phi))]V_u(j,a,\epsilon)\} \tag{1}$$

Conditional on employment or unemployment, individuals choose savings and whether to live independently or with parents. The housing choice follows the same structure as in Chapter 1, with probabilities determined by the relative values of co-residence and independent living.

Firms post vacancies in submarkets subject to a posting cost κ_p, and free entry ensures zero expected profits in equilibrium. Matching follows a Den Haan et al. (2000) function, and matches are destroyed at rate δ.

3.3 Incorporating Rising Rents

The key modification in this chapter concerns the treatment of the housing cost κ_h. In Chapter 1, κ_h is constant and set by assumption. Here, I introduce a higher housing cost that reflects the observed increase in rental prices between 2000 and 2020.

Let CPI_t^{rent} denote the consumer price index for rent and CPI_t^{total} the overall consumer price index in year t. I first construct the relative price of rent,

$$R_t = \frac{CPI_t^{rent}}{CPI_t^{total}} \tag{2}$$

and then define the rent increase as the ratio of these relative prices between 2020 and 2000:

$$\gamma = \frac{R_{2020}}{R_{2000}} = \frac{\frac{CPI_{2020}^{rent}}{CPI_{2020}^{total}}}{\frac{CPI_{2000}^{rent}}{CPI_{2000}^{total}}} \tag{3}$$

The baseline housing cost κ_h^{base} corresponds to the calibrated model from Chapter 1, while the high-rent housing cost used in the counterfactual analysis is

$$\kappa_h^{high} = \gamma \cdot \kappa_h^{base} \tag{4}$$

This single point estimate captures the extent to which rents have risen relative to overall consumer prices. Increasing κ_h tightens the budget constraint for independent living and reduces the value of low-wage, high-probability submarkets. As a result, workers shift search effort toward higher-wage submarkets with lower job-finding probabilities, and co-residence becomes a more attractive option when matches do not materialize.

3.4 Equilibrium

The equilibrium definition is identical to that in Chapter 1: workers choose search effort, savings, and living arrangements optimally; firms post vacancies until expected profits are zero; and the government sets a labour income tax τ to finance unemployment benefits and pensions. The only deviation is that the housing cost κ_h is scaled by the empirically estimated rent shock γ, and consumer choices respond to this higher-rent environment. All structural parameters and calibrated values from Chapter 1 are held fixed.

4 Results

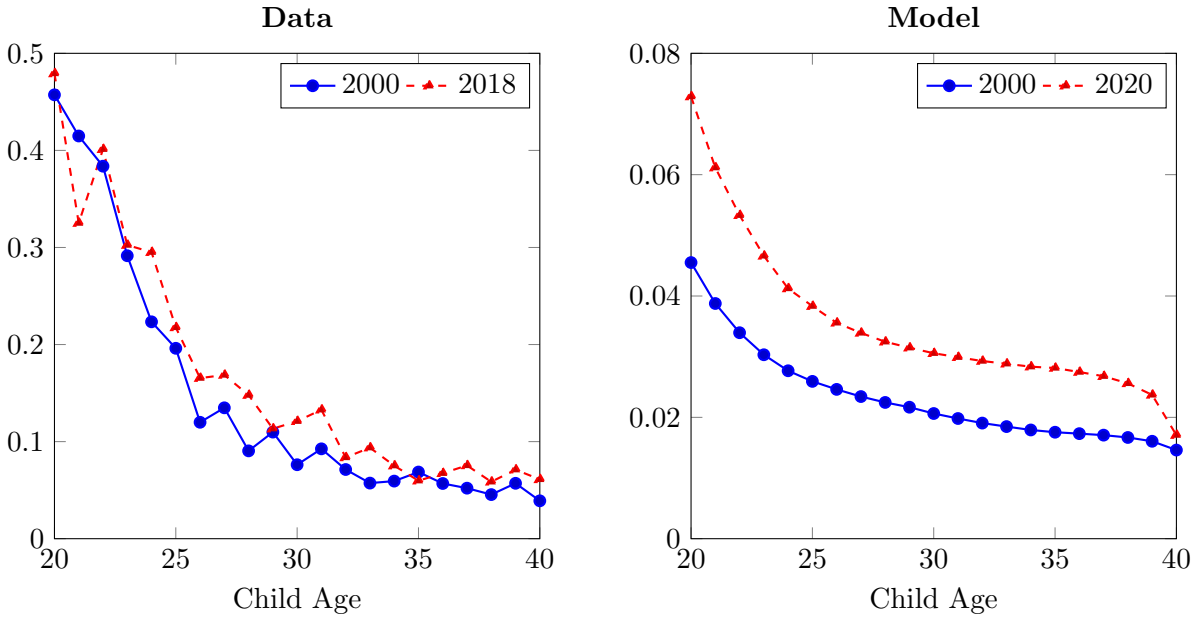
This section presents the quantitative implications of the model and evaluates the extent to which rising rents can account for the observed increase in co-residence among parents and adult children. The model also characterizes how rising housing costs influence workers' search behaviour and the resulting shifts in employment, saving, consumption, and welfare. The results highlight the central mechanism of the model: higher housing costs compress the set of submarkets in which independent living is feasible, inducing workers to shift toward higher-wage but riskier search strategies and increasing reliance on co-residence as non-market insurance.

4.1 Co-Residence Responses to Rising Rents

The model generates a meaningful increase in co-residence alongside the rise in rents observed between 2000 and 2020. In the HRS, the share of adults aged 20–40 living with a parent rises from

10.6 percent in 2000 to 14.1 percent in 2020, an increase of about 3.5 percentage points. In the model, co-residence among individuals aged 20–40 increases from 2.67 percent to 4.06 percent over the same period, an increase of roughly 1.4 percentage points. In absolute terms, the mechanism therefore accounts for approximately one third of the observed rise in co-residence. Elevated rents can explain a non-trivial share of the increase in shared living arrangements, even though other factors must also have contributed to the remaining two thirds of the rise documented in the data.

Figure 2: Co-Residence Share in the Data and Model



Note: Co-residence shares for adult children aged 20–40 in the data and model. Co-residence is declining as children age, and for most ages co-residence is higher in 2018 than in 2000. The 2020 wave of the HRS is excluded from this comparison to isolate changes arising from the COVID-19 pandemic.

4.2 Employment and Search Behaviour

Rising rents also reshape workers' search behaviour by altering the menu of submarkets in which the utility benefit of living independently is worth a corresponding reduction in consumption. As the fixed cost of housing increases, low-wage submarkets no longer provide sufficient income to

cover subsistence needs. Workers respond by reallocating search effort toward higher piece-rate submarkets that offer wages capable of clearing the higher rental threshold. Although the resulting increase in average piece-rates is quantitatively small, the shift has a large impact on job-finding rates because high-wage submarkets feature substantially lower matching probabilities in the calibrated model.

Table 2: Employment and Search Choices from 2000 to 2020

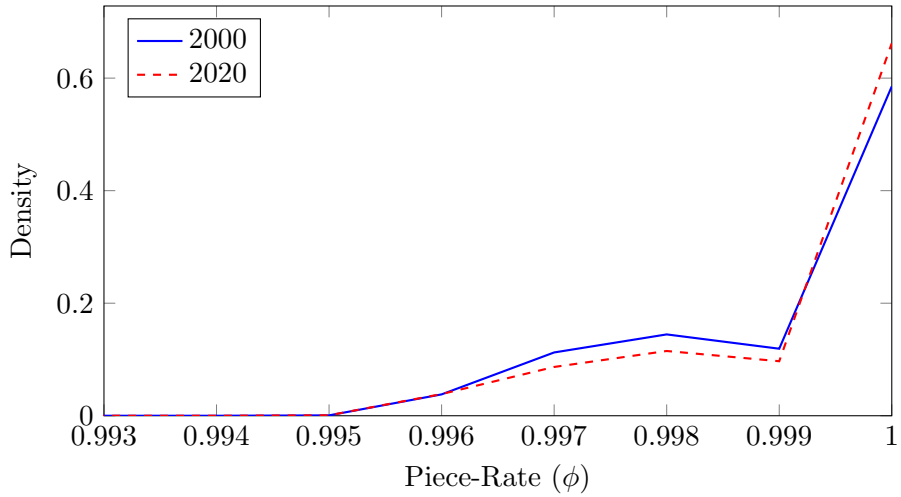
Variable	**2000**	**2020**	**Δ**
Panel A: Percentage Point Changes			
Co-residence share	0.0267	0.0406	+0.0139
Employment share	0.9544	0.9398	–0.0146
Panel B: Relative Percentage Changes			
Average piece-rate	0.9934	0.9947	+0.0013
Average job-finding rate	0.3339	0.2696	–0.1926

Note: All values are model generated moments under the calibrated equilibrium and off-equilibrium with a rental price increase to match conditions from 2000–2020.

A second channel through which rising rents affect labour market outcomes is endogenous selection out of employment. In the model, workers can choose submarkets with arbitrarily high piece-rates, including a limiting submarket with a piece-rate of 1 in which all match output would accrue to the worker. As no firm is willing to post vacancies in such a submarket, its job-finding rate is zero. Selecting into this submarket is therefore equivalent to choosing unemployment: workers know that their search will never result in a match. A useful measure for this behaviour is the share of searchers who select into unemployment. In 2000, 39 percent of searchers chose these infeasible submarkets; by 2020, this share had risen to 47 percent. Rising rents thus increase the fraction of workers who opt out of the labour market entirely by selecting submarkets that guarantee continued unemployment.

Figure 3 illustrates these two channels of adjustment among job searchers. In both 2000 and 2020, most searchers concentrate at very high piece-rates, but masses shift noticeably toward the upper end of the distribution when rents increase. The calibrated model shows that the mass of

Figure 3: Piece-Rate Distribution Among Searchers, 2000–2020



Note: Distribution of optimal piece-rates among the unemployed aged 20–40. The intensive margin labour supply response is very small but present at 0.9995 and 0.9996 when workers higher piece-rates in the 2000 model economy to lower ones given 2020 prices. The extensive margin is very salient, with job searchers selecting away from piece-rates at 0.997, 0.998, and 0.999 in favour of guaranteed unemployment at a piece-rate equal to 1.

workers at each feasible piece-rate declines in favour of the infeasible submarket which guarantees unemployment. This is representative of two mechanisms: first, some workers adjust their desired piece-rate upwards but remain in the feasible set of submarkets where employment is possible. Second, a large share of job searchers select out of feasible submarkets into guaranteed unemployment, indicating weakening attachment to the labour force in a higher-cost housing environment.

Together, these adjustments generate small changes in employment but large changes in search outcomes: for workers aged 20–40, the job-finding rate falls by 21.3 percent. The option to co-reside amplifies both margins of adjustment. Since living with parents provides insurance against consumption losses, workers are more willing to accept the higher unemployment risk associated with high-wage submarkets and to select into unemployment altogether. Rising rents therefore weaken labour-force attachment by making non-employment more attractive relative to low-wage work that no longer covers the cost of independent housing.

4.3 Incomes, Savings, and Consumption

Increasing housing costs also affect workers' economic outcomes through changes in income, saving, and consumption. The shift toward higher-wage submarkets raises average piece-rates only slightly, and as a result the effect on earnings is modest. However, lower job-finding rates lengthen unemployment spells, and longer spells force workers to draw down assets without opportunities to rebuild. As a result, workers reach lower asset positions over time. Consumption falls as workers devote a larger share of resources to housing or rely more heavily on co-residence to maintain consumption levels. Rising rents weaken labour force attachment by shifting the allocation of search effort in ways that reduce matches, rather than through changes in earnings.

Table 3: Mean Income, Assets, and Consumption in 2000 and 2020

Moment	**2000**	**2020**	**Relative Δ (%)**
Panel A: All workers			
Average assets	0.8781	0.8867	+0.98
Average income	2.3423	2.3416	–0.03
Average consumption	1.9365	1.9084	–1.45
Panel B: Unemployed only			
Average assets	0.3532	0.3389	–4.05
Average income	0.2488	0.2500	+0.48
Average consumption	0.4568	0.4062	–11.08
Panel C: EU only			
Average assets	1.1217	0.7337	–34.59
Average income	2.3423	2.3416	–0.03
Average consumption	1.1526	0.7873	-31.70

Note: Mean income, assets, and consumption in 2000 and 2020 for each sample. Relative changes reflect percentage differences over time. Asset and consumption declines are largest among EU workers with significant declines also present among all unemployed. In contrast, changes for all workers are comparatively small.

Changes in income and savings result in meaningful reductions in non-housing consumption. Among workers aged 20–40, average consumption falls by 1.5 percent, with larger declines among those who remain independently housed. Co-residing workers experience smaller reductions because

parental housing partially insulates them from income volatility. As rents rise, living at home becomes an increasingly important buffer against consumption risk, widening the gap in material well-being between independently housed and co-residing adults.

These reductions in non-housing consumption are particularly damaging to the unemployed. Table 2 details that among workers transitioning from employment into unemployment as well as those who are persistently unemployed, consumption has dropped by 32 and 11 percent, respectively. Further, between 2000–2020, assets among the EU and persistently unemployed fell but 32 and 4 percent, respectively. This arises from higher subsistence consumption needs (via increased rent) over time reducing savings and limiting the effectiveness of traditional self-insurance.

4.4 Welfare Amid Rising Rents

Rising rents reduce welfare for all workers by increasing unemployment risk, lowering job-finding rates, and depressing consumption. The option to co-reside provides an important source of insurance, allowing workers to better smooth consumption during unemployment, but it does not fully offset the costs of a more expensive housing market. As workers shift toward high-wage submarkets with low matching probabilities and spend more time unemployed, aggregate welfare declines even after accounting for the insurance value of living at home.

Table 4: Aggregate Welfare by Age, 2000–2020

Age	**2000**	**2020**	**Relative Δ %**
20–25	79.32	78.04	-1.62
26–30	75.88	74.92	-1.26
31–35	70.05	69.36	-0.99
36–40	61.98	61.57	-0.67
Total	72.1642	71.3072	-1.1878

Note: Aggregate welfare in 2000 and 2020 by age group. Relative changes show that welfare declines are largest for younger workers, consistent with lower asset holdings and more limited ability to self-insure against rising rents.

The welfare losses are largest for the youngest workers, reflecting their limited ability to self-insure.

Younger individuals hold fewer assets and therefore rely more heavily on co-residence to buffer income shocks. As rents rise, this group experiences both sharper consumption declines and higher rates of co-residence, amplifying the welfare impact. The mechanism is straightforward: with fewer assets to draw upon, young workers cannot smooth consumption as effectively, and they are more likely to forgo the utility benefit of independent living when unemployment or low wages make independent housing unaffordable. In this way, rising rents disproportionately burden those at the start of their working lives, who face the tightest liquidity constraints and the greatest dependence on the informal insurance provided by co-residence.

5 Conclusion

This paper examines how rising rental housing costs shape labour market search behaviour when adult children can live with their parents. The analysis uses a life-cycle model of directed job search in which workers choose both the submarket in which to search and whether to live independently or with their parents. The model is calibrated to intergenerational moments from the Health and Retirement Study that discipline employment transitions and co-residence patterns among adults aged 20 to 40. The model also incorporates the rise in rental housing costs since 2000 in order to quantify how higher rents affect living arrangements, search behaviour, and labour market outcomes. I find that that higher housing costs restrict the set of submarkets in which independent living is financially feasible, leading workers to shift toward higher-wage submarkets with lower job-finding probabilities. This adjustment generates higher co-residence flows and lower employment, and the model accounts for roughly one third of the observed increase in co-residence among adults aged 20 to 40 over the past two decades.

The results highlight an important implication for understanding labour market outcomes in high-cost environments. When rents rise faster than overall consumer prices, low-wage employment becomes less effective at supporting independent living, and the value of remaining attached to the labour force declines. Co-residence provides an insurance mechanism that reduces the cost

of unemployment, and workers become more willing to accept longer spells out of work when independent living is no longer affordable. This relationship directly links housing affordability to labour market performance and shows that high rental costs can reduce labour force attachment even when the broader labour market environment is unchanged and the only shock comes from rising housing costs.

Several directions for future research follow from this analysis. One is to incorporate geographic mobility into the quantitative model, since workers may respond to heightened local rents by moving across labour markets rather than into the parental home. Another is to study how the insurance value of co-residence interacts with other public programs that shape the returns to low-wage work, including unemployment insurance, minimum wages, and housing subsidies. A further extension could allow for heterogeneity in parental housing quality, which would clarify how rising rents affect workers whose families cannot offer co-residence as a form of insurance. These extensions would deepen our understanding of how housing affordability interacts with labour market behaviour and would help evaluate policies aimed at improving both housing access and employment outcomes.

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