

Substitution between internal migration, long-distance commuting, and teleworking: Do past migration experiences matter?

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One of the explanations for the decline in the level of internal migration in developed countries has been a possible substitution with teleworking and long-distance commuting. To shed new light on this process and better understand why some individuals are immobile, this paper draws on the idea that migrants ‘learn by doing’ and establishes whether past migrants are more likely to migrate internally for employment purposes while individuals with no or limited migration experience are comparatively more likely to engage in long-distance commuting or teleworking. We empirically test this hypothesis by drawing on longitudinal microdata from the Household, Income and Labour Dynamics Australia (HILDA) survey, and run a series of random-effect multinomial regression models. Preliminary results lend support to our hypothesis. This finding suggests that the current downward trend in the level of internal migration may have a snowball effect that perpetuates a decline in internal migration with corresponding increases in teleworking and long-distance commuting.

1. Introduction

Over the last four decades, the level of internal migration has been trending down in several advanced economies, particularly Australia and the United States (Alvarez, Bernard and Lieske 2021; Champion, Cooke and Shuttleworth 2018). One of the explanations proposed is a possible substitution of internal migration with long-distance commuting and teleworking: instead of relocating to a different region or state for employment purposes, individuals will choose to work from home or engage in long-distance commuting. This shift is thought to have been facilitated by improvement in ICT (Cooke and Shuttleworth 2017) and infrastructure (Brown et al. 2015), coupled with the growing share of dual-income households who are facing additional barriers to migration (Cooke 2008; Kalemba et al. 2020). However, our understanding of these processes remains coarse.

A separate line of inquiry has emerged on the role of past migration experiences in shaping future migration behaviour. Building on the idea that migrants ‘learn by doing’ (Morrison 1971), this body of work has shown that past migrants are more likely not only to return to a previous region of residence but also to migrate onward to a new region (Bernard and Perales 2021; Myers 1999). This process is best encapsulated in the concept of migration capital (Ivlevs and King 2012; Kim 2018), which assumes that the accumulation of migration experience can be mobilised to facilitate subsequent internal migration migrations by lowering the perceived costs and benefits of migration.

Based on this concept, one would expect past migrants to be more likely to migrate internally for employment purposes and individuals with no or limited migration experience to be comparatively more likely to engage in long-distance commuting or to work from home. We test this hypothesis by drawing on longitudinal microdata from the Household, Income and Labour Dynamics Australia (HILDA) survey, a nationally representative survey of the Australian population aged 15+ running since 2001. Answering this question is important because if individuals with limited internal migration are more likely to choose to long-distance commute or to telework, this would mean that the current decline in the level of internal migration has long-term implications by potentially disaccustoming future cohorts to migration in a way that might decrease their likelihood to migrate subsequently,

thus perpetuating a decline in the level of internal migration while increasing the incidence of teleworking and long-distance commuting.

2. Data and methods

To answer this question, we draw on 20 waves of HILDA from 2001 to 2020, which corresponds to about 15,000 persons and 300,000 person-years. We run a series of logistic regression models that compare the likelihood of staying in the same region and not changing work arrangements to the likelihood of migrating, or engaging in long-distance commuting or teleworking. We first run the model of the whole population and then restrict the analysis to individuals who changed jobs in the last 12 months. Formally the model is expressed as follows:

$$\ln\left(\frac{\text{pr}(M_{iy}=c)}{\text{pr}(M_{iy}=1)}\right) = \alpha^c + P_{i,y}\beta_1^c + X_{i,y}\beta_2^c + u_{iy}^c + \varepsilon_{iy}^c \quad (1)$$

where i and y represent an individual and a year respectively. M is the outcome variable of interest. It is a categorical variable that captures five mutually exclusive categories indicated by superscript c (1=no internal migration and no change in work arrangements, 2 internal migration and no change in work arrangements, 3 no internal migration but started to commute long- distance, 4= no internal migration but started to telework, 5=internal migration and a change in work arrangement). Internal migration is defined as a move of at least 65km, which is the distance at which employment-related reasons for moving take over housing reasons in Australia (Thomas, Gillespie and Lomax 2019). For that reason, long-distance commuting is defined as a travel distance greater than 65km, which is greater than the average commuting distance of 16km in Australia (ABS 2018). We define a teleworker as someone who works from home at least 50 per cent of the time.

the model's grand intercept is α , while X is a set of control variables that includes age, sex, educational attainment, marital status, number of children, household structure, employment status and key life-course transitions (education completion, change of job, family and household formation). P captures the key variable of interest: the number of past internal migrations. We also control for the number of past long-distance commuting experiences, which has been shown to increase the odds of engaging in long-distance commuting (Öhman and Lindgren 2003). The vectors β are model coefficients to be estimated. u_{iy} is an individual random effect, which captures individual's unobserved propensity to move and safeguard the assumptions of independence despite the use of repeated observations. To account for the nesting of observations within households, and safeguard the regression assumption of independence of observations, standard errors are clustered on household membership (Cameron, Gelbach and Miller 2012). We conduct sensitivity analysis to determine how the results change when the definition of internal migration, teleworking and long-distance is altered.

3. Expected outputs

Regression coefficients will be reported in figures to facilitate interpretation. We expect the findings to demonstrate how new insights into migration behaviour can be gained by taking into account migration histories. Findings will be interpreted in light of the current decline in internal migration and the rise in teleworking since the start of the COVID-19 pandemic.

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