
Internal migration and employment: macro flows and micro motives

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Abstract. Empirical support for models of internal labour migration are usually based on observed patterns of net flows into local labour markets with relatively low unemployment and relatively high real wages. The inference drawn from such evidence is that internal migrants move to enhance returns to their labour. However, major surveys in the USA (Panel Study of Income Dynamics, and the Current Population Survey), the UK (British Household Panel Survey) and Australia (Household, Income and Labour Dynamics in Australia) all show that less than a third of internal migrants are motivated primarily by employment reasons. This paper explores this apparent disconnect between net flows and motives using the Survey of Dynamics of Motivation and Migration, which has recorded in detail the reasons why over 6000 individuals moved within New Zealand over the two-year period 2005 and 2006. The survey confirms that only a minority of working-age migrants move between local labour markets primarily for employment reasons. Far from increasing returns to their employment, most migrants do not experience a rise in income or believe their employment prospects improved as a result of their move. Rather than being motivated by having their employment enhanced by internal migration, the majority of internal migrants of working age appear to be motivated by other goals. Employment remains important, but in most cases only insofar as the new destination enables its continuity.

1 Introduction

The inference most analysts draw from migration flows between local labour markets is that employment considerations are a strong reason for moving. However, survey evidence shows that the vast majority of employed people who move between local labour markets move primarily for social and consumption reasons rather than in order to enhance their employment returns per se.

At first, the apparent inconsistency between the micro motives inferred from net flows and those that the migrants themselves report is puzzling. The resolution comes from an appreciation of the difference between those moves which simply enable employment to continue at a new location and those which actually enhance the returns to employment.

In order to change residence, members of the workforce *have* to secure an income stream at the new location which therefore constrains who can move, as well as when and where to move. Those people for whom employment elsewhere is less likely to be available or not as well rewarded in *real* terms compared with their present location tend to stay at home, leaving as migrants only those who believe they can solve the employment problem.

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According to the neoclassical argument, movers self-select not only to arbitrage area differences in skill-specific wages but also to secure on-going employment at alternative locations (Borjas et al, 1992). However, if employment is relatively plentiful across a wide range of locations and the probability of securing employment elsewhere varies to only minor degrees, then considerations other than employment will dominate responses to questions on why people move. In such cases migration to enhance employment gives way to movement to enhance other goals (eg Chen and Rosenthal, 2008; Clark and Withers, 2007; Fotheringham et al, 2000). Enhancing employment by increasing pay or job quality is therefore not a necessary condition for such migration. Jobs are now sufficiently plentiful, at least in most urban locations, for migration to be used simply as a way of satisfying lifestyle and associated consumption priorities. In practice, a minority will move with expectations of employment that do not eventuate, which may precipitate a return home, a subsequent move, or a work status adaptation at their new location (DaVanzo and Morrison, 1981).

The evidence we present below suggests that, even when net flows of internal migrants do coincide with the geography of employment growth, only a minority of working-age movers either aim to or end up raising their income and/or their employment prospects. Most movers appear therefore to hold passive rather than active expectations of their employment prospects; family and consumption motivations take priority and, for most internal migrants, on-going employment is viewed as simply a necessary rather than sufficient precondition for moving.

The policy implications of this evidence are consistent with the increasing attention that amenity and social networks play in attracting labour (Clark et al, 2003; Maier and Vyborny, 2008). As a result, local authorities are increasingly focusing on building a broad economic base alongside a range of amenities so that the majority of potential migrants can secure just the employment they need to realise their goals of material consumption, environment, lifestyle, and family. As Simon (1957) suggested, albeit in a wider context, sufficiency of on-going income may be a more powerful dynamic than its maximisation.

The paper has seven sections. Following this introduction, section 2 provides a background to the argument by contrasting the investment (labour) and consumption (amenity) approaches to internal migration. Section 3 introduces the data from the Survey of Dynamics of Motivation for Migration, initiated and run by Statistics New Zealand. Section 4 reports the reasons migrants give for moving between local labour markets, paying particular attention to the role employment motives play. The paper suggests that most migrants engage in risk management rather than maximising employment returns and as evidence section 5 demonstrates the limited extent to which movers between local labour markets actually do change their income and/or improve their employment prospects. Given the role attributed to the denser, metropolitan markets in raising in-migrants' productivity, section 6 asks whether migrants moving to metropolitan centres report a rise in their employment prospects. After controlling for the demographic and human capital attributes of such migrants we find no such evidence and consider as a result the possible role access to offshore labour markets might play. The paper's conclusions are presented in section 7.

2 Background

The human capital model of migration says that an individual's decision to move is conditional upon the net discounted returns he or she expects to receive from moving exceeding those expected from staying, notwithstanding the general uncertainty surrounding the moving decision (Kan, 1999; Khwaja, 2002). In the labour-mobility version of the model, the returns to employment are the product of the probability of being

offered a job of interest multiplied by the expected wage. If the employment returns (net of moving costs) at an alternative destination exceed those that prevail at the origin, then the migration is assumed to occur.

These central ideas that still motivate most contemporary models of migration within developed economies were formulated in vastly different environments. Returns to labour were quite explicit drivers of migration in Ravenstein's 19th-century papers into and within Great Britain. The same position is also adopted by Hicks in his 1932 treatise (Grigg, 1977): "Differences in net economic advantages, chiefly differences in wages, are the main causes of migration" (Boheim and Taylor, 2007, page 99).⁽¹⁾ A similar perspective dominated accounts of rural–urban migration in developing countries (Harris and Todaro, 1970; Sjaastad, 1962).

Contemporary human capital models of migration continue to treat the decision to move from one geographic labour market to another as a human capital *investment* designed to *enhance* the decision maker's prospects in the labour market (Blackburn, 2006, page 1). In the case of New Zealand, for example, Maré and Timmins, "found evidence to suggest that people choose destinations where employment growth is stronger" and hence that "internal flows are related to relative local labour market conditions" (2003, page 7).

Although not logically precluded by the investment model, the burgeoning literature on the role of local amenities suggests that it is equally important to treat internal migration as a consumption decision, given that most moves are intended primarily to improve quality of life. It has been suggested, for example, that households generally prefer nonmetropolitan areas and cities in warm coastal locations, whereas firms tend to prefer large, growing cities, while workers with high levels of education are drawn to locations that are attractive to businesses (Chen and Rosenthal, 2008). There is also growing evidence from the 'downshifting' literature that the substantial migration out of large cities is happening precisely in order to reduce consumption while increasing quality of life (Chhetri et al, 2009; Hamilton and Mail, 2003). The anticipated returns to migration, therefore, can be expected to depend on who is migrating, where they are moving to, and whether the migrant is primarily a supplier of labour, an investor, a consumer and/or a producer (Shields and Shields, 1989).

Levels of employment in many affluent economies are sufficiently high throughout the country to allow most workers to adjust their consumption patterns by changing where they live. Investment and consumption returns may be complementary or competitive and the mix will vary on a case-by-case basis. The fact that investment decisions may compete with the consumption considerations in certain instances helps account for the wage premiums offered in locations deemed suboptimal in consumption terms (Glaeser and Maré, 2001). The literature on compensating differentials is designed largely to address this fact, as well as the point that some people will forego pure wage returns for lifestyle and quality-of-life returns (Rosen, 1986). The competing nature of returns to different locations are also reflected in the geographic variations we witness in people's subjective well-being (Morrison, 2010).

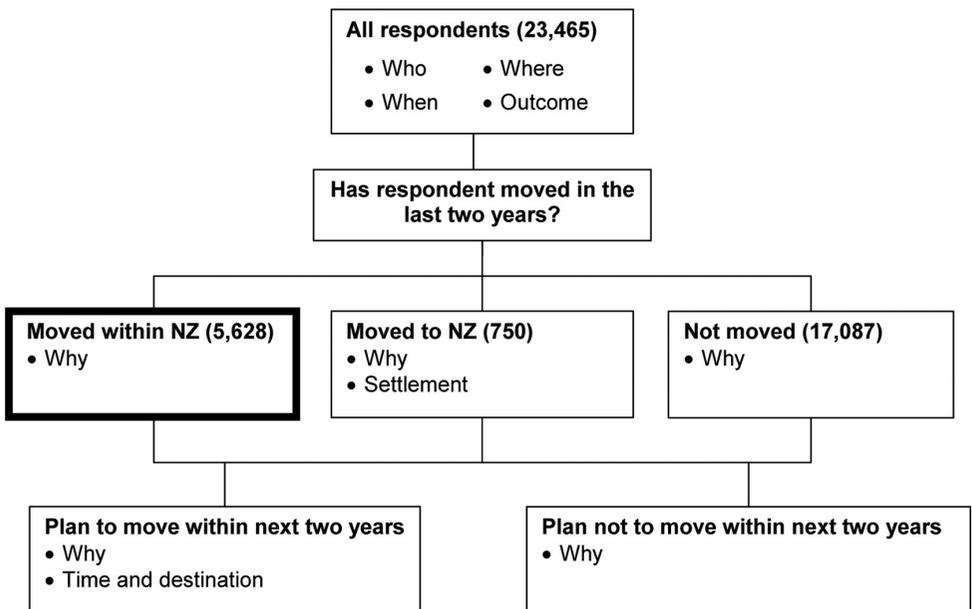
What remains unclear in the literature to date is how migrants balance employment and consumption considerations in their internal migration decisions and how they evaluate the relative returns over each domain following their move. More specifically, there is still considerable ambiguity over the role that returns to employment play in contemporary internal migration decisions. The release of the Survey of Dynamics of Motivation for Migration in New Zealand presents a unique opportunity to interrogate such motivations.

⁽¹⁾ For a useful discussion on the subtleties see Gregg et al (2004, page 385).

3 Data

Although New Zealand has very good data on mobility patterns from its five-yearly census, very little is known about *why* people move from one place of residence to another, *why* they choose certain locations over others, and *how* they subsequently evaluate their decision to move (Nissen and Didham, 2008).⁽²⁾ The Survey of Dynamics of Motivation for Migration is a Statistics New Zealand initiative designed to investigate the motivations behind internal migration and movers' perceived consequences of moving.

The survey was run as a supplement to the March 2007 quarter of the New Zealand Household Labour Force Survey (HLFS), which collects basic demographic and employment information from approximately 15 000 private households (30 000 individuals) on a statistically representative basis from rural and urban areas throughout the country. For the March 2007 quarter the HLFS received a sample of 26 756 responses from individuals, all of whom were given the opportunity to participate in the survey supplement. A total of 23 465 respondents completed the additional questions.⁽³⁾



Note: A total of 3190 responded to the 'plan to move within the next two years' question with 553 saying they planned to move and 1872 planning not to. A total of 521 were 'thinking about it but were not sure' and 244 said they did not know.

Figure 1. The structure of the Survey of Dynamics and Motivation and Migration (source: Nissen and Didham, 2008).

⁽²⁾Data collection for the survey was performed by computer-assisted interviewing. Data were collected partly by computer-assisted personal interviewing by field staff for selected households (about 30%). The remaining households were surveyed by centralised computer-assisted telephone interviewing.

⁽³⁾The target population for the survey is the usually resident, civilian population of New Zealand aged 15 years and over and living in occupied private dwellings. However, individuals were ineligible for the personal survey if the household was ineligible for the HLFS. This survey's weighted response rate for the March 2007 quarter was 88.7% and the proportion of *these* individuals responding to supplement was 87.8%. Therefore, the overall response rate for the survey we used in this paper was $0.887 \times 0.878 = 0.779$. The nonresponse to motivation survey is partly due to the increased burden of it being a supplement and partly due to proxy responses not being accepted (even though they were accepted for HLFS). Information about sampling errors for each data cell in the cross-tabulations Statistics New Zealand provides to users (the downloadable tables) is available upon request.

The authors' contract with Statistics New Zealand permits access to the full set of individual responses through a secure data laboratory designed to guard respondent confidentiality.

The survey separates the sampled population into three mobility categories depending on whether they moved in the two years prior to the interviews which took place between 7 January and 7 April 2007. As depicted in figure 1, respondents were asked whether they last moved *within* New Zealand or *to* New Zealand (from Australia). All three types of mover were then asked about their plans to move during the subsequent two years to 2009. The analysis in this paper is confined to migrations among local labour markets within New Zealand, as identified in figure 2.

The timing of the survey was fortuitous, for its reference period (2005 and 2006) came at the end of five years of positive growth in GDP (adjusted for inflation), 1.5% per annum in 2005.⁽⁴⁾ This growth was in turn reflected in a twenty-year low in unemployment rates that, for males with postsecondary qualifications, for example, settled at 2%, well below the OECD average. Therefore, the internal migration patterns we document below took place in a particularly buoyant internal labour market, one in



Figure 2. (a) Labour-market catchments and (b) labour-market regions of New Zealand, 2006 (source: based on 2006 Census returns using the algorithm described in Papps and Newell (2002)). The numbers in each map uniquely identify each local labour market.

⁽⁴⁾ For an overview of GDP growth rates in New Zealand over the last decade, see <http://www.tradingeconomics.com/Economics/GDP-Growth.aspx?Symbol=NZD>

which the risks of internal migration may have been lower than usual (Morrison and Berezovsky, 2003).

In summary, Statistics New Zealand has invested in what is a unique survey of the motivations for moving with the explicit intention of identifying the reasons people offer for remaining in or changing their residential address. As such, the survey complements the five-yearly census figures, which capture the number of people moving, their rate of mobility, and the direction of their move but give little indication of the reasons *why* they moved.

4 Reasons for moving: the motivational evidence

The quarter of the population who changed their residence within New Zealand over the two years 2005 and 2006 were asked why they changed address. They were asked to offer a primary reason together with any other reasons why they chose to leave their place of origin. Typical responses included 'no employment (locally)', 'didn't have a choice', 'separated from my husband', 'to get a job nearby', 'had money to buy this house' and 'didn't get along with my parents'. Answers like these were then postcoded to around seventy reasons (level 3), which were then collapsed into thirty-five broader categories (level 2), and then finally into seven categories (level 1).⁽⁵⁾ With two exceptions the default coding from level 3 to 2 has been accepted.⁽⁶⁾ Most respondents provided only one reason for moving and they are analysed here together with the primary reason given by those offering multiple responses.

It is important in viewing these results to recognise that they relate to individuals interviewed separately. At the same time, the responses and associated views on the influence of moving are made in the context of particular household structures and their dynamics, including those involving single-earner and dual-earner households. The subtleties involved in incorporating household contexts into interpretation of responses require a level of investigation that exceeds that attempted in the present paper and remain as a future project.

Table 1 shows the distribution of responses by the working-age population by the main reason for moving from the place of origin. The results are quite consistent with the distributions found in most 'reasons for moving' surveys. Housing cost and housing size/satisfaction together account for 55.8% of all reasons for moving and this rises to almost 66% if environmental reasons are included. A further 17% of all moves are motivated by social reasons and an additional 4.3% by educational reasons. Accordingly, less than one in ten movers cited employment reasons as their main reason for moving within New Zealand (8.9% in this instance), a result which is consistent with the tabulations released by the US Panel Study of Income Dynamics (PSID), Current Population Survey (CPS), the British Household Panel Survey (BHPS), and Household, Income and Labour Dynamics in Australia (HILDA) surveys.

As a means of understanding internal migration, tabulations of change of address alone have a number of shortcomings. In the first instance, table 1 fails to distinguish between moves that take place within and between local labour markets: that is,

⁽⁵⁾ For a discussion of coder bias in such classifications, see Nedomysl and Malmberg (2009). No such analysis has been undertaken on the New Zealand survey, but the Swedish case does not suggest any systematic coder bias.

⁽⁶⁾ The original category of 'economic' was changed to its more specific label—housing cost—and a more specific 'housing size/satisfaction' category was created. These changes render our results slightly different from those reported on the Statistics New Zealand website for the Survey of the Dynamics of Motivation and Migration (see <http://www.stats.govt.nz/reports/people/survey-dynamics-motivations-migration-in-nz-additional-tables.aspx>).

Table 1. Main reasons for moving from the previous residential address within New Zealand, 2005 and 2006 given by the working-age population, 18–65 years (source: Statistics New Zealand, Survey of Dynamics of Motivation and Migration).

| | Frequency | Percentage | Cumulative percentage |
|---------------------------|-----------|------------|-----------------------|
| Social | 800 | 17.13 | 17.13 |
| Education | 193 | 4.13 | 21.27 |
| Employment | 416 | 8.91 | 30.18 |
| Housing cost | 1 634 | 35.00 | 65.17 |
| Housing size/satisfaction | 972 | 20.82 | 85.99 |
| Environment | 475 | 10.17 | 96.17 |
| Other reasons | 164 | 3.51 | 99.68 |
| No response | 15 | 0.32 | 100.00 |
| Total | 4 669 | 100.00 | |

Note: The sample size in table 1 is less than the 5628 of figure 1 due to the table's restriction to the working-age population only.

between moves within and between local housing price and wage combinations (Zax, 1994). Job quits and moves to alternative housing are substitutes when people relocate *within* local labour markets but become complements when migrating *between* them when movers change both dwelling and employment (Zax, 1991).

In the second instance the present study not only invokes the conventional distinction between intraurban mobility and internal migration but also introduces two different sets of internal migration boundaries—delimiting labour-market *catchments* on one hand and a set of larger commuting zones referred to as labour-market *regions* on the other. There is value in using both the partitions illustrated in figure 2 because no single classification captures the employment fields of all movers (see Morrison, 2005); professionals, for example, typically operate within a much larger local labour market than trades people (see McKinnish, 2008).

Rerunning table 1 for people of working age who moved only between labour-market catchments reveals not only fewer movers (just under 700), but also a clear shift in the distribution of reasons for moving. As expected, employment reasons are more likely to be invoked when moves take place *between* catchments, from 8.91% to 31.5%. This population rises to 32.4% in the case of moves between the larger labour-market regions. Interestingly, social reasons for moving also become relatively more important in the case of those moving between catchments (from 17.1% to 21.3%) as does education (4.1% to 8%) and environmental factors (10.2% to 13.5%).

As might be expected, when all movers are compared with those who move only between catchments, the primary reasons for changing residence are the housing cost drivers (Clark and Dieleman, 1984). They fall by almost 35% to 13.8% when moves between local labour markets alone are considered, as shown in table 2. Housing size and satisfaction considerations also drop from 20.8% to just under 7% as justification for these longer moves. Very similar results apply to moves between the larger labour-market *regions*.

The initial message, therefore, is to confirm the well-known finding that most changes of address involve short, local moves that are driven primarily by the desire to adjust the characteristics of the dwelling. In contrast, moves by the smaller set of working-age movers to other local labour markets are more likely to be influenced by employment, as well as social and educational factors. In these respects, therefore,

Table 2. Main reasons for moving between local labour-market catchments within New Zealand, 2005 and 2006 constructed from addresses of origin given by the working-age population, 18–65 years (source: Statistics New Zealand, Dynamics of Motivation and Migration Survey).

| | Frequency | Percentage | Cumulative percentage |
|-----------------------------|-----------|------------|-----------------------|
| Social | 147 | 21.34 | 21.34 |
| Education | 55 | 7.98 | 29.32 |
| Employment | 217 | 31.49 | 60.81 |
| Housing cost | 95 | 13.79 | 74.60 |
| Housing size/satisfaction | 48 | 6.97 | 81.57 |
| Environment | 93 | 13.50 | 95.07 |
| Other reasons + no response | 34 | 4.93 | 100.00 |
| Total | 689 | 100.00 | |

contemporary New Zealand internal migrants do observe the international norm (Clark and Huang, 2003).

While focusing on employment as a reason for moving may be appear to be an appropriate way to identify micro motives for internal migration, there are actually several different kinds of employment reasons that can be invoked by migrants and the New Zealand survey makes it possible to identify some of these differences. Table 3 tabulates six categories: those in which respondents move voluntarily for a new job or for promotion, and three others that reflect involuntary or external demand-driven factors, such as transfers, losing a job, or retiring. The sixth category is wanting to live closer to work.⁽⁷⁾

From the level of detail provided in table 3, we learn that those who move *voluntarily* to better jobs—promotions, transfers, or to look for work—make up less than two thirds of all those moving between labour catchments for employment reasons (64.1%). Fewer than 10% of those who reported moving for employment reasons were actually responding to largely involuntary factors such as losing a job or retiring (8.1%). Furthermore, since local labour-market boundaries typically enclose only a majority rather than all commuters, it should not be surprising to find that some people are moving to be closer to their workplace (approximately 5%) even in the case of the larger labour-market regions. Notwithstanding the value of this finer classification of employment reasons, coders have still had to classify over one fifth of responses into ‘other (employment) reasons’. (A few ‘no response’ cases are also included here for data-confidentiality reasons.)

The evidence in table 3 does not guarantee that the move to another labour catchment or region will result in an increase in income or raise the movers’ employment prospects. A move motivated by employment could enhance the returns to labour or simply provide sufficient income at the destination to enable the move to take place, or it could in some circumstances be associated with a decline in income, especially if other characteristics of the new position compensate.

By the same argument, a move motivated primarily by reasons other than employment could still be associated with an improved employment outcome. The distinction between a move that enhances employment and one that simply enables on-going

⁽⁷⁾A question on employment location is not collected in the New Zealand survey so moves between neighbouring labour catchments could feasibly take place without a change in employment. We suggest that this is unlikely to be the case for those saying they moved for employment reasons, although it is possible that shorter moves between catchments could involve some moving in order to reduce commuting.

Table 3. Employment reasons for moving between labour-market catchments within New Zealand, 2005 and 2006, given by the working-age population, 18–65 years (column percentages in parentheses) (source: Statistics New Zealand, Dynamics of Motivation and Migration Survey).

| Employment reasons for moving from origin | Number and proportion moving between labour-market | |
|---|--|----------------|
| | catchments | regions |
| Take up new job promotion | 69 (29.5) | 65 (30.7) |
| Look for job opportunities | 63 (26.9) | 52 (24.5) |
| Transfer | 18 (7.7) | 18 (8.5) |
| Lost job | 14 (6.0) | 12 (5.7) |
| Retired | 5 (2.1) | 5.0 (2.4) |
| Closer to workplace | 12 (5.1) | 10 (4.7) |
| Other (employment) reasons | 53 (22.6) | 50 (23.6) |
| Total | 234 (100.0) | 212 (100.0) |

employment is not, therefore, one that can be made on the basis of motivation. The distinction can be made only on the basis of the outcomes of migration itself. With this point in mind, we turn to the evidence on reported outcomes, starting with the income change associated with the move in section 5 and followed by respondents' evaluation of employment prospects after the move in section 6.

5 Changes in income and employment prospects as a result of migration

Internal migrants who moved within two years of their 2007 interview were asked whether their personal annual income increased, decreased, or stayed about the same after they moved. Those whose income had changed were then asked whether the increase or decrease was actually related to their move.⁽⁸⁾ Responses for all those migrating between local labour markets were analysed, not just those who said they moved for employment reasons.

Almost two fifths of all migrants moving between New Zealand's labour catchments said they experienced no change in income (39.6%), a figure that dropped only slightly (to 38.5%) among those moving between labour-market regions. A change in income does not necessarily mean a *rise* in income, however. In fact, only 31.1% of working-age internal migrants whose income changed reported a *rise* in income; the rest reported a decrease (28.5%). Therefore, in light of the fact that only three fifths of all internal working-age migrants experienced any change in income and that less than one third of those actually increased their income, we are left with the stark fact that only 12.3% of all internal migrants surveyed reported a rise in income that they could link directly to their migration.

This last point needs explaining. One of the limitations of simply looking at remuneration following an internal migration is that incomes can change for reasons

⁽⁸⁾The recall period for this question varied. Over one third (39%) of respondents had moved within six months of the interview, over half (53%) had been resident for up to nine months and 64.8% for twelve months. A further third had been resident for between one and two years.

other than the migration itself. Because of this possibility, survey participants were asked whether they could attribute their income change to the move itself. More than half (59%) could *not* attribute their income change (positive or negative) to their move. Ironically, those who experienced a decrease in income (56.1%) were *more* likely to attribute the change to their migration.

What then of the relationship between income change and motivations for moving? The internal migrants who experienced an increase in income following their move and said they moved primarily for employment reasons *were* more likely to attribute their income change to the move, although the difference is only slight. Furthermore, almost 24% (78/324) of those who moved for employment reasons experienced a *decrease* in income attributable to the move. Offering employment reasons for a move does not, however, mean the reason is a voluntary one or even a particularly relevant one as we saw in table 3. And even if it were, there is little indication that it is necessarily associated with a change in income, a positive income change or that the change was due to moving.

There are at least three possible reasons why the income gains experienced by internal migrants might be low, even when they are motivated primarily by employment reasons. The first possible reason is that returns to employment are not confined to the income received—job satisfaction, work relations, and employment conditions can separately or collectively motivate a move into another local labour market. Therefore, any notion of employment enhancement following a move needs also to consider improvements in employment prospects more generally, a matter to which we soon turn. A second possible reason relates to the partial (hours reduction) or complete retirement from paid employment by those movers still within working-age range.

A third reason could be that higher returns to employment following an internal migration may take some time to materialise, especially if the migrant is entering a completely new job and/or changing occupation or perhaps realising a new qualification. We turn therefore to movers' evaluation of changes to their employment prospects.

6 Enhancing employment prospects through internal migration

All migrants within New Zealand who undertook the survey were asked to assess their employment prospects following their move. They did so through the following question: "Compared to before you moved, are your employment opportunities now: much better, better, about the same, worse, or much worse?" Table 4 presents the responses of those moving between local labour catchments.

Similar results were encountered in the case of income change; therefore it should not be surprising to find the positive correlation in table 5. The most common response was simply the maintenance of premove levels of employment prospects. Less than half of respondents claimed their employment prospects improved as a result of the move and only one fifth could claim they were *much* better off in employment terms. As a proportion of all responses 'better' and 'much better' therefore constitute a minority.

Collapsing responses on employment prospects into three categories and cross-tabulating them with income change as in table 5, reveals that only about one fifth (22%) of all migrations could be viewed as employment 'enhancing' as represented by the intersection of increased income and improved employment prospects. Even then, we are reminded that most income changes were not the result of the move itself.

The overall message from table 5 is a pattern of internal migration in which employment returns to migration appear rather weak, certainly in aggregate. At the same time, the chances that returns to employment will be enhanced as a result of moving are likely to vary substantially across the migrant population. Even though overall employment gains appear muted, there are likely to be some types of migrant

Table 4. Employment opportunities following the move between labour-market catchments, working-age population, 18–65 years (source: Statistics New Zealand, Survey of Dynamics of Motivation and Migration).

| Rating of employment prospects following the move | Frequency | Percentage | Cumulative percentage |
|---|-----------|------------|-----------------------|
| 1. Much worse | 12 | 1.95 | 1.95 |
| 2. Worse | 64 | 10.41 | 12.36 |
| 3. About the same | 250 | 40.65 | 53.01 |
| 4. Better | 165 | 26.83 | 79.84 |
| 5. Much better | 124 | 20.16 | 100.00 |
| Total | 615 | 100.00 | |

Note: Missing values account for the lower total than table 2.

Table 5. Joint changes in employment outcomes: income and employment opportunities following the move between labour-market catchments, working-age population, 18–65 years (source: Statistics New Zealand, Survey of Dynamics of Motivation and Migration). (Frequencies and cell proportions of the total are given in parentheses.)

| Changes in income following the move | Change in employment prospects following the move | | | |
|--------------------------------------|---|----------------|---------------|---------------|
| | worse | about the same | better | total |
| Decrease | 47 (7.7) | 70 (11.5) | 63 (10.3) | 180 (29.5) |
| No change | 17 (2.8) | 114 (18.7) | 89 (14.6) | 220 (36.1) |
| Increase | 12 (2.0) | 64 (10.5) | 134 (22.0) | 210 (34.4) |
| Total | 76 (12.5) | 248 (40.7) | 286 (46.9) | 610 (100) |

Note: Pearson $\chi^2(4) = 0.000$. Cramer's $V = 0.24$.

whose income and employment prospects do rise noticeably as a result of their move. Returns to employment are also likely to depend on which type of labour market migrants move to. We assembled the evidence relating to both these issues in section 7.

7 Employment outcomes, migrant attributes, and migration streams

Notwithstanding the limited employment returns that internal migrants reported in New Zealand between 2005 and 2006, labour models of migration would lead us to anticipate that moving to larger and denser labour catchments would be associated with raised employment prospects. At the same time, any postmove prospects are likely to vary by age as well as by gender and levels of education. In addition, those with explicit employment motivations for changing labour catchments are more likely to report an improvement in employment prospects.

Selected metropolitan destinations were used, along with the above controls, to model employment returns to migration. As noted in table 4, those outcomes are ordinal in nature and therefore we employ the ordinal probit model as set out in equations (1) and (2). In accordance with this approach the postmove employment prospects (as evaluated by the internal migrant) are treated as a *latent* unobserved continuous variable, E_{i^*} , as opposed to E_i , which is the *observed* dimension comprising three ordered options: worse, about the same, better. The parameter λ_t is the t th estimated threshold (increasing in t) governing the relationship between E_{i^*} and E_i .

The three arguments on the right of the equals sign are the demographic variables of age and gender (D), human capital variables such as employment status and education (H), and the choice of migration stream (S).

$$E_{i^*} = \beta_o + \beta D_i + \gamma H_i + \rho S_i + \varepsilon_{ij}, \quad (1)$$

$$E_i^k = t \leftrightarrow E_{i^*}^k \in [\lambda_t, \lambda_{t+1}]. \quad (2)$$

Table 6 provides details of the variables we use for migration between labour catchments and a class of moves we define as nonlocal, being greater than 20 km, which is a distance great enough to eliminate most of the residential moves that take place within labour catchments.

The model was estimated in a stepwise sequence on the basis of the expected exogeneity of the independent variables. Those least likely to be codetermined by factors correlated with the dependent variable were entered first, such as age and gender. Education and employment status were then added, followed by the influence of employment destination—either migration into metropolitan centres in general or the largest market (Auckland).

Although our focus is on moves between labour catchments, the same model can be applied to a more general set of those moving beyond the confines of most local catchments in what we refer to as nonlocal moves. These are isolated by imposing a

Table 6. Variables used in ordinal probit model of postmove employment prospect applied to the working-age population, 18–65 years who moved nonlocally and between local labour-market catchments (source: Statistics New Zealand, Survey of Dynamics of Motivation and Migration).

| | Description | Migration between labour-market catchments | Nonlocal moves |
|-------------------------------------|--|---|--|
| <i>Dependent variable</i> | | | |
| Employment prospects | Change in employment prospects following the move compared with before the move: worse, same, better | 1. Worse 74 (12.4%) 2. About same, 242 (40.67%) 3. Better 279 (46.9%) | 1. Worse 339 (14.0%) 2. About same, 1187 (49.0%) 3. Better 894 (36.9%) |
| <i>Independent variables</i> | | | |
| Age | Age of migrant (at interview) | Mean 36.7 years SD 12.1 years | Mean 35.5 years SD 12.0 years |
| Male | Male = 1, female = 0 | 46.70% | 47.80% |
| Employment | Working for pay or profit prior to the move = 1; otherwise = 0 | 77.22% | 76.30% |
| Education | Any school qualification (at interview) = 1; no school qualification = 0 | 50.92% | 57.60% |
| Migration into metropolitan centres | Destination: Auckland, Wellington or Christchurch = 1; otherwise = 0 | 25.60% | 45.10% |
| Migration into Auckland | Destination: Auckland = 1; other streams = 0 | 11.39% | 37.7% |

distance constraint of 20 km which is sufficient to exit most large urban markets in New Zealand. We begin with this more general model, containing as it does the larger sample size ($N = 2418$).

The most consistent results in tables 7 and 8 are those in which the movers' assessments of improvements in their employment prospects decline with their age. The postestimated probability of an internal migrant improving their employment prospects following a move of 20 km or more (while holding the other variables in model 4 of table 7 at their means), falls by about one third of 1% for each year of increase in the migrant's age ($dy/dx = -0.003$, $z = -3.94$). The result is fairly stable under the four different specifications of the model.

Table 7. The relative impact of respondent characteristics and migration streams on the post-move employment prospects of nonlocal migrants (those moving more than 20 km) within New Zealand 2005–06, ordered probit estimates (source: Statistics New Zealand, Survey of Dynamics of Motivation and Migration).

| Variable | Model 1 | Model 2 | Model 3 | Model 4 |
|---|--------------------|--------------------|--------------------|--------------------|
| Age | -0.010*** | -0.008*** | -0.008*** | -0.008*** |
| Male | 0.149** | 0.158*** | 0.158*** | 0.149** |
| School qualifications | | 0.201*** | 0.198*** | 0.197*** |
| Employed prior to move | | -0.227*** | -0.229*** | -0.229*** |
| Destination: Auckland, Wellington, or Christchurch | | | 0.059 | |
| Destination: Auckland only | | | | 0.077 |
| Number of cases | 2420 | 2420 | 2418 | 2418 |
| Degrees of freedom | 2 | 4 | 5 | 5 |
| Pseudo- R^2 | 0.007 | 0.012 | 0.012 | 0.012 |
| Log-likelihood ratio | -2.4×10^3 | -2.4×10^3 | -2.4×10^3 | -2.4×10^3 |
| χ^2 | 31.608 | 55.321 | 57.013 | 58.049 |

** $p < 0.01$; *** $p < 0.001$.

Table 8. The relative impact of respondent characteristics and migration streams on the post-move employment prospects of internal migrants moving between labour-market catchments within New Zealand, 2005–06, ordered probit estimates (source: Statistics New Zealand, Survey of Dynamics of Motivation and Migration).

| Variable | Model 1 | Model 2 | Model 3 | Model 4 |
|---|----------|----------|----------|----------|
| Age | -0.012** | -0.011** | -0.011** | -0.011** |
| Male | 0.105 | 0.118 | 0.114 | 0.117 |
| School qualifications | | 0.163 | 0.163 | 0.162 |
| Employed prior to move | | -0.243* | -0.243* | -0.240* |
| Destination: Auckland, Wellington, or Christchurch | | | 0.056 | |
| Destination: Auckland only | | | | 0.097 |
| Number of cases | 595 | 595 | 595 | 595 |
| Degrees of freedom | 2 | 4 | 5 | 5 |
| Pseudo- R^2 | 0.009 | 0.013 | 0.013 | 0.013 |
| Log-likelihood ratio | -578.28 | -575.69 | -575.56 | -575.47 |
| χ^2 | 9.06 | 15.13 | 15.41 | 15.59 |

* $p < 0.05$; ** $p < 0.01$.

While increasing age of the migrant reduces employment prospects at the new location, it is not simply age that affects expected employment outcomes. Gender is also important, with reported employment prospects increasing more for men, who are 6% more likely to return higher evaluations of employment prospects than female migrants. These results too remain fairly stable under the different specifications in table 7.

The presence of a school qualification has a positive influence on the employment returns to migration beyond the labour catchment. The probabilities of improved employment prospects postestimated from the results in table 7 rise by 7.4% ($dy/dx = 0.074$). Another interesting feature is the impact of prior employment status. For the subset of movers who were employed prior to the move, employment prospects following the move declined by 8.7% ($dy/dx = -0.087$) relative to those who did not report having a job prior to their move.

What is striking about those moving to metropolitan centres is just how little difference the destination appears to have on the movers evaluation of their employment prospects (after controlling for differences in their demographic and human capital attributes). Two examples are offered here: whether a migrant is moving into any of the three metropolitan markets (Auckland, Wellington, or Christchurch as in model 3) or moving to the largest labour market only (Auckland, model 4). Internal migrants' assessment of their employment prospects appear unaffected by either.

Estimating the same model on the smaller set of internal migrants moving between labour catchments ($N = 595$) produces similar results to the larger sample of nonlocal moves (table 8). Sensitivity to age is a little greater for longer intercatchment moves but being male has a weaker and statistically less significant effect. The same applies to the influence of the presence of school qualifications and previous employment continues to have a negative impact. Moving to denser, urban labour markets again does little to raise migrants' postmove assessment of their employment prospects.

In summary, even though postmove employment prospects rise for less than half of the working-age population who move over 20 km and/or cross the border into another labour catchment, the implicit and explicit motivations for improvements are consistent with a number of the micro motives usually attributed to working-age internal migrants. Improvements in employment prospects following a nonlocal move fall with age, are more likely to be experienced by men, are greater for those who have gained school qualifications, and fall for those who leave an existing job. What has been surprising in both cases, however, is the lack of any indication that movement to denser, metropolitan markets raises mover's perception of their employment prospects.

This lack of correspondence between migration to metropolitan centres and employment prospects may be related to the relatively small size of the New Zealand labour market and the relative easy access its residents have to metropolitan labour markets across the Tasman. The fact that wage levels are considerably higher in Australia means that those who are strongly motivated to increase the returns they receive from employment may be diverted from seeking internal opportunities in favour of the much larger external market in Australia (and elsewhere).⁽⁹⁾

Domestic surveys do not allow observation of moves offshore so we cannot test the above hypothesis directly. However, we do have information on plans to move, including both the general location and the expected timeframe. One way of exploring the possibility that offshore gains reduce incentives to move to internal metropolitan markets is to see if people who are *planning to move* to Australia (as opposed to within

⁽⁹⁾ As corroborating evidence among skilled migrants, employment opportunities are certainly not ranked as the most important reason for moving to New Zealand. See http://www.stats.govt.nz/browse_for_stats/population/migration/longitudinalimmigrationsurveynewzealand_hotpwave1.aspx

New Zealand) are more likely to be motivated by employment reasons than those planning to move internally. The results offer some support for this argument. They show that of those planning to move overseas, more than two fifths (40.7%) cite employment reasons as their primary reason, compared with only 34.6% of those planning to move elsewhere in New Zealand and 7.6% of those moving within the same urban area.

8 Conclusions

Models of labour migration assume that members of the labour force migrate to enhance returns to their labour and empirical support is often found in the pattern of net flows between local labour markets. However, the major surveys of mobility in the USA (PSID and CPS), in the UK (BHPS) and Australia (HILDA) find that less than one third of such migrants are actually motivated primarily by employment reasons. The aim of this paper has been to provide a better understanding of this apparent contradiction between macro flows and micro motives.

The paper resolves the puzzle by drawing a distinction between migrations that are employment *enabling* and those that are employment *enhancing*. Migration, certainly among the working-age population, requires securing an on-going source of income, most of which comes from employment. One of the reasons so few migrants cite employment as their main reason for moving may not be because employment is not important (cf Schachter, 2001) but because it is so important that potential movers must address it before they move. "It is not very easy", as Gregg et al pointed out, "to change location if there is no source of income" (2004, page 394).

The evidence in support of our distinction between the enabling and enhancing roles of employment in internal migration has been assembled from the Survey of Dynamics and Motivations for Migration in New Zealand. Conducted over the two-year migration window during a period of buoyant labour demand, the survey revealed that few working-age migrants changed local labour markets with the express aim of enhancing employment returns. Even fewer migrants showed clear evidence of having realised any employment gains in the short run or saw themselves making such gains in the longer run. Instead, most internal migrants viewed the purpose of their move as adjusting consumption and/or realigning social relationships. On-going employment was simply a means and therefore not a primary reason for moving and the chances of raising incomes and improving career prospects were confined to a small minority of migrants (table 5).

At the same time, these results do not necessarily mean that there is a contradiction between the net migration flows we observe and the micro motives revealed by survey respondents. Even though less than a third of all movement between local labour markets by working-age migrants is employment motivated, labour migration can still help equilibrate the national labour market in quantity terms. People seeking continuity of employment alone will still tend to avoid those locations in which employment growth is not at least stable or increasing.

There are three main implications of the distinction we have made between employment enablement and enhancement for understanding internal migration. Firstly, it is clear from the survey evidence that movers place much greater weight on employment risk aversion than employment maximisation when selecting alternative local labour markets. Markets will adjust on these grounds alone without having to assume migrants move in order to increase their wages or employment prospects.

The second implication relates to the policy advice given to local authorities. The evidence gleaned from this study suggests that having local authorities compete on a nominal or even real wage basis may miss the broader lifestyle considerations that

preoccupy most contemporary migrants. Given their motivation for moving, most migrants will simply aim to maintain their income stream at a new location

The third implication of our distinction between employment enabling and employment enhancing migration relates to migration behaviour in small countries. Our analysis of the New Zealand case suggests that greater access to the global market, with its much wider distribution of employment returns, may diminish the range of employment returns available locally. Migrants who are particularly concerned with exploiting real wage differentials and raising their employment prospects are more likely to search an international market, leaving the majority behind to base their internal migration on other criteria.

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