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When does temporary migration become permanent? A study of movement duration

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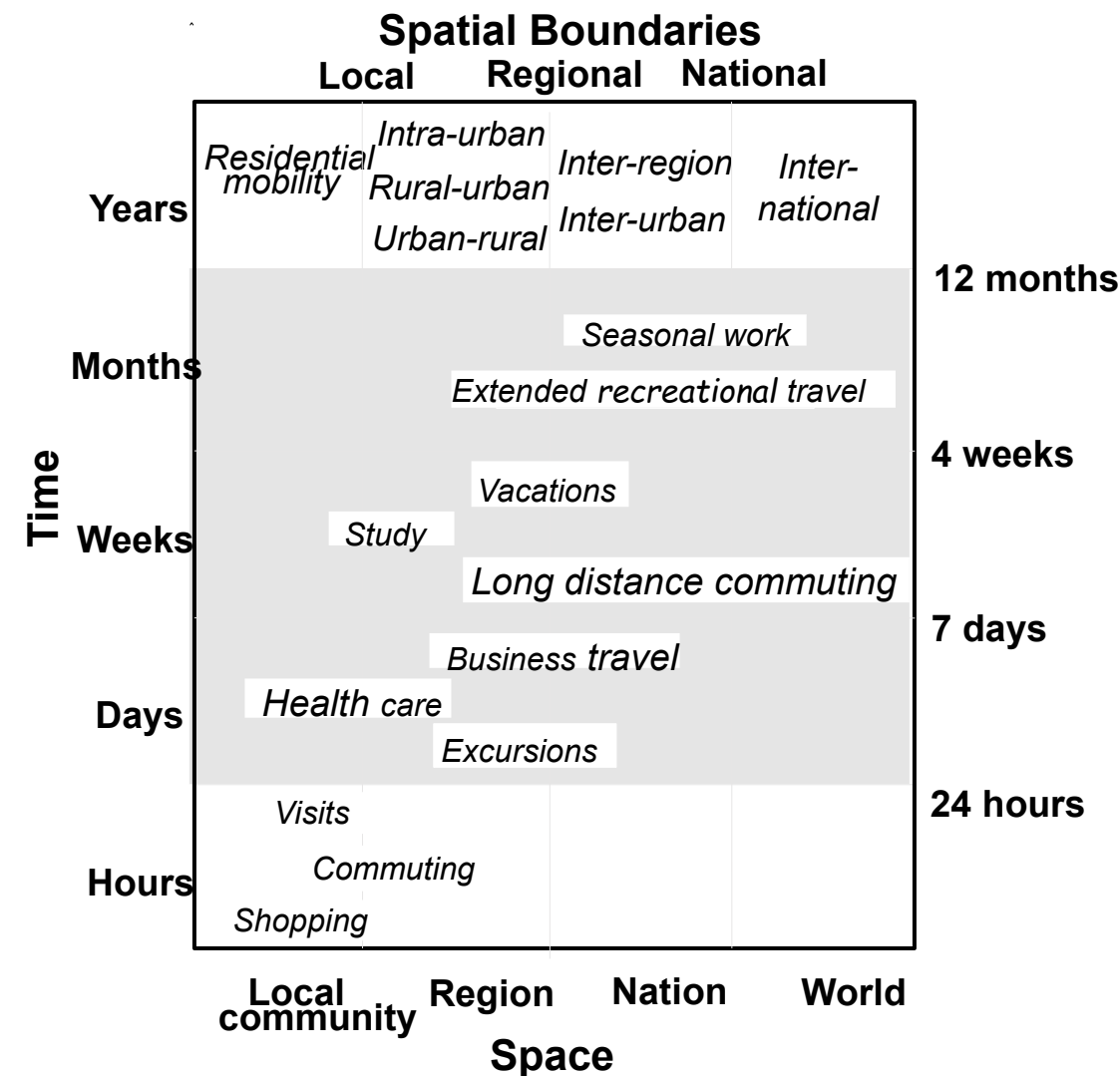
Research Background

- Migration research has traditionally overlooked temporary population movements in favor of permanent relocations (Bijwaard, 2010) including in Asia.
- In many parts of the world temporary migration is numerically and empirically significant
 - Numerically: 376 million temporary migrants in China (Cheng & Duan, 2021); 200 million temporary migrants in India (Desai & Vanneman, 2012); jointly (576 million) more than twice the size of total lifetime internal migrants (280 million) in Asia (Charles-Edwards et al., 2019).
 - Empirically: important livelihood strategy for rural households (Choithani et al., 2021; Pattenden, 2012; Zhu et al., 2014); contribute to urbanization (Iyer, 2017); industrial development (i.e. manufacturing, construction, service) (Fielding, 2015).



Conceptual complexity

- Various definitions but broadly defined as the complement of permanent migration (Bell & Ward 2000) - moves more than one night in duration that does not entail a change in usual residence (Charles-Edwards et al, 2020)
- Production (e.g. seasonal work,) or consumption-related reasons (e.g. vacations).
- Variable duration, seasonality, frequency, and periodicity(Brown and Bell, 2005).
- Occurs across regional or international borders
- No standard concepts, data or statistics





Conceptual complexity

Scholars have defined temporary mobility based on the duration, settlement intentions, and purpose of movement.

- **Duration of stay(at destination)**

One night is typically accepted as the lower bound to distinguish between temporary migration and daily commuting (Bell & Ward, 2000; Charles-Edwards et al., 2020; Hugo, 1982; Smith, 1989); however, the **upper bound** is fuzzier, ranging from days to years (Charles-Edwards et al, 2020; Hugo,1982).

- **Settlement intentions at destination**

Zelinsky (1971) defined temporary migration as “a great variety of movements usually short term, repetitive or cyclical in nature,” without any stated intention of making a permanent or long-term move.

- **Diverse array of purpose(for which moves are undertaken)**

Temporary mobility can be undertaken for purposes related to both consumption and production (Bell & Ward, 2000; Charles-Edwards et al., 2020; Smith,1989).

Measurement complexity

- Data on temporary population mobility, while not a standard demographic item, are collected in a range of instruments including surveys, censuses, and registers.
- A review of data collection practices in eight countries of Asia (paper submitted) revealed variation in approach to measurement and a range of duration thresholds used to differentiate permanent from temporary moves
- No evidence to base these thresholds on.

Measure type	Country	Year	Measurement Framework		Movement type	Temporal Dimensions					Spatial dimensions	
			Spatial framework	Observation interval		Intensity	Duration	Seasonality	Frequency	Periodicity	Displacement (both Origin-Destination Units/scales)	Circuits
Place of enumeration	Cambodia	2013	All changes of address	Survey night	All	Yes	No	No	No	No	Province	No
	Kyrgyz Republic	2009	All changes of address	Survey night	All	Yes	1) less than a month; 2) up to a year; 3) More than a year	No	No	No	District & City	No
					All	Yes	No	No	No	No	Province	No
	Mongolia	2000	All changes of address	Survey night	All	Yes	No	No	No	No	State & District & Urban & Rural	No
Multilocality/Interval	India	2008	Village/Town >500,000	One year prior	Working	Yes	1-6 months	No	No	No	Rural & Urban	No
	Indonesia	2005	Hometown	Undefined	Return to hometown	Yes	No	No	No	No	Province & regency ¹	No
					Second home	Yes	1) less than 3 months; 2) 3 to 6 months per year	No	No	No	Urban & Rural	No
	Iran	2011	City/Settlement	One year prior	Hukou based	Yes	More/less than six months	No	No	No	Province & Rural & Urban	No



Research questions

This study explores whether an inflection point that distinguishes internal migration events can be identified and how the reasons and determinants vary by duration of move.

Three dimensions:

- Spatial temporal dynamics(single month)
Distribution of internal migration events by durations and distance
- Migration scale(accumulated months)
Migration intensity by durations across geographical levels & purpose of movement
- Propensity of moving (accumulated months)
whether or how the influence of sociodemographic characteristics on internal migration changes by durations



Data

- Draw on individual migration histories collected in a large-scale longitudinal survey, including the first (1993–94) and third (2000) waves of the Indonesian Family Life Survey (IFLS)- The sample is representative of about 83% of the Indonesian population and contains over 30,000 individuals living in 13 of the 27 provinces in the country. .
- The duration data is collected in two separate modules: circular migration and permanent migration
 - circular: duration from 1 month to 6 months in the past two years
 - permanent: includes year and month of each movement, calculated duration ranges more than six months and less than 24 months in the past two years¹
- The final sample combine duration in both circular and permanent modules, ranging from 1 to 24 months in two-year observation interval.
- N= 5670

1. The original permanent migration is collected in past seven years or since 12 years old, which means the observation interval is much longer than circular migration. To be consistent with the circular migration, the permanent moves selected by this study is restricted to the moves happened in last two years, so the observation interval is same for moves in different durations.



Duration and distance distribution

Figure 1a Proportion of Moves in each Duration

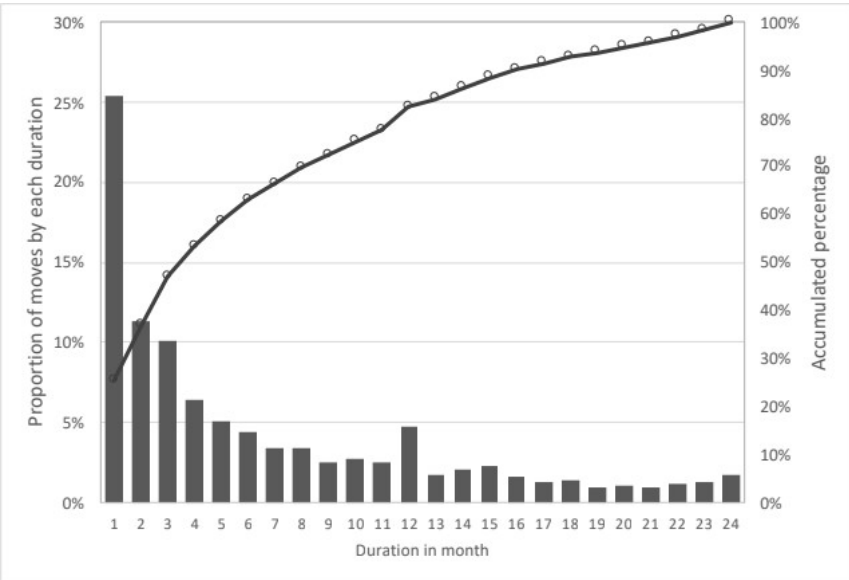
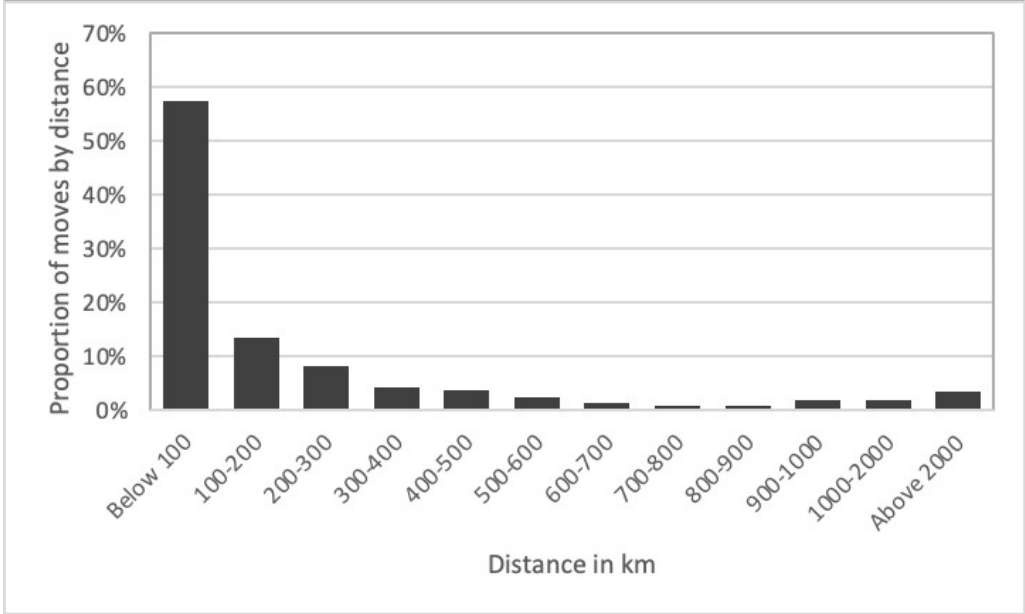


Figure 1b Proportion of Moves in Different distance

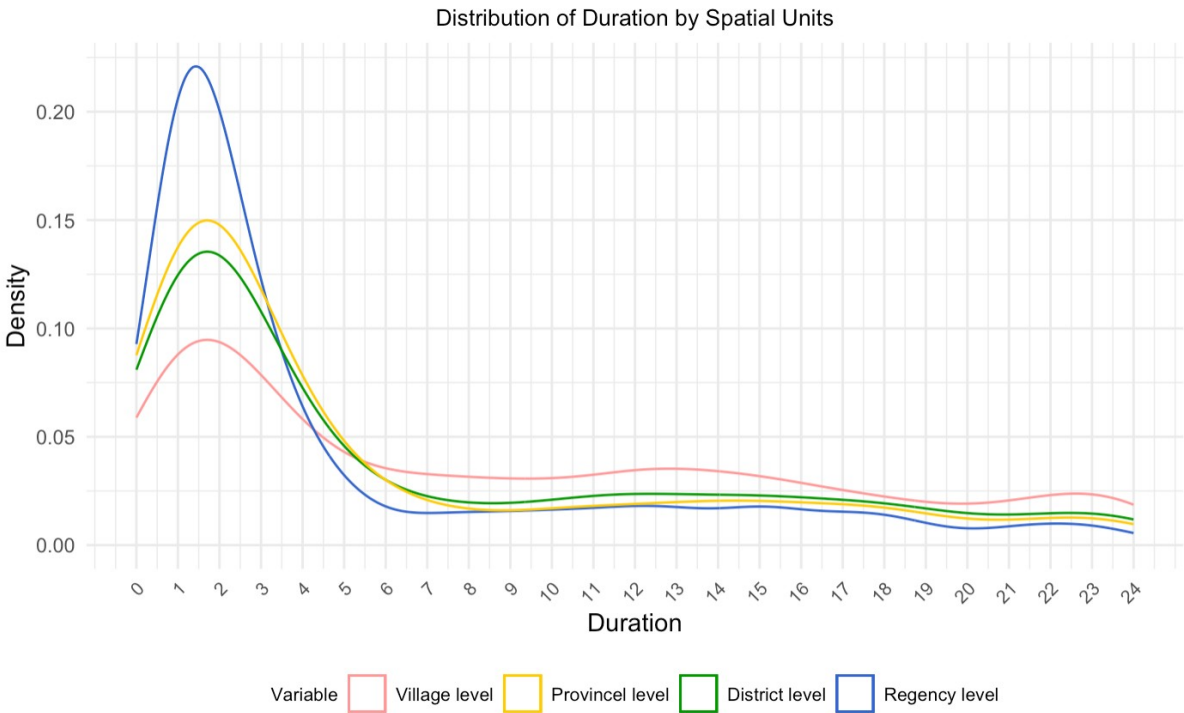


Large proportion of moves are relatively short durations. e.g. 25% for one-month stayers, more than half of all movers are under six -month duration.



The impact of spatial scale

Figure 1b Distribution of durations by spatial units of measurement



There is spatial gradient: the longer the distance, the higher the proportion of short duration moves.

The impact of purpose

Purpose	n	Percentage
OPPORTUNITY TO HAVE A NEW HOUSE	159	0.02804233
EDUCATION/TRAINING-RELATED	514	0.09065256
FAMILY-RELATED	2438	0.42998236
LIKE THE DESTINATION	124	0.02186949
OTHERREASONS	415	0.07319224
WORK-RELATED	2020	0.35626102

Figure 1a Distribution of durations in purpose of work and family

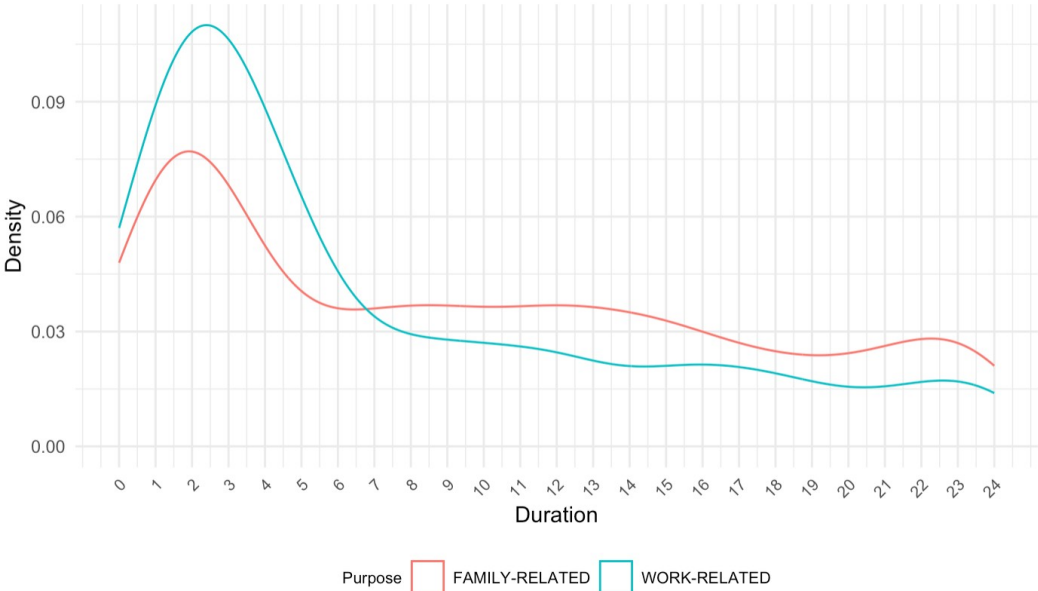
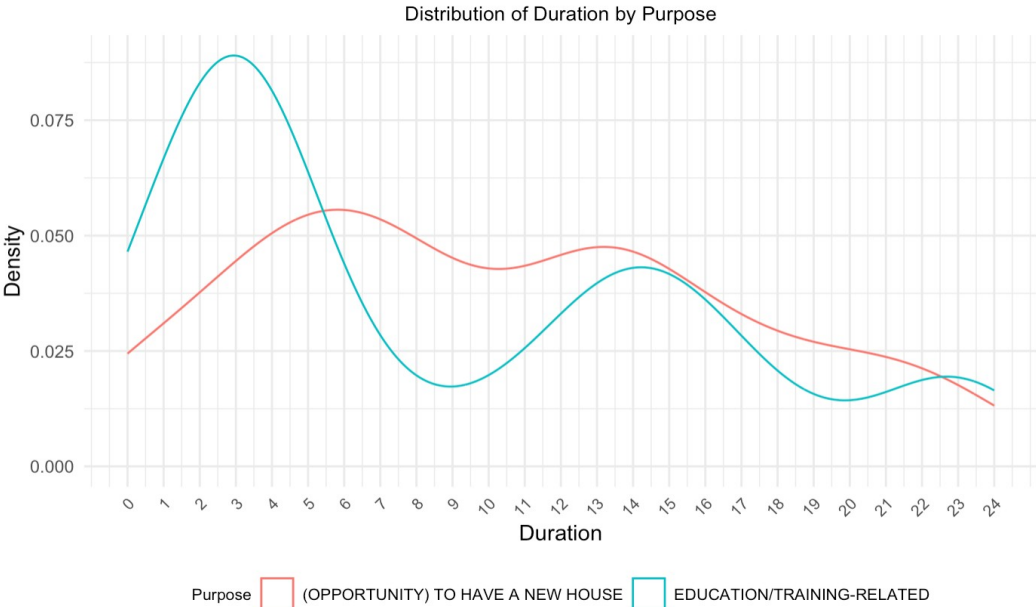


Figure 1a Distribution of durations in purpose of house and education



Movement durations vary by movement purpose
Work related moves are most concentrated at shorter durations, followed by Family and Education, the later is bimodal.



Movement Scale by Accumulated Duration

Crude migration intensity

$$CMI = M / P * 100$$

M is the total number of moves in different durations(from **up to 1 month ...to up to 24 months**);
P is the population at risk of moving.

Figure 2 Crude Migration Intensity(CMI) by Various Purpose(village)

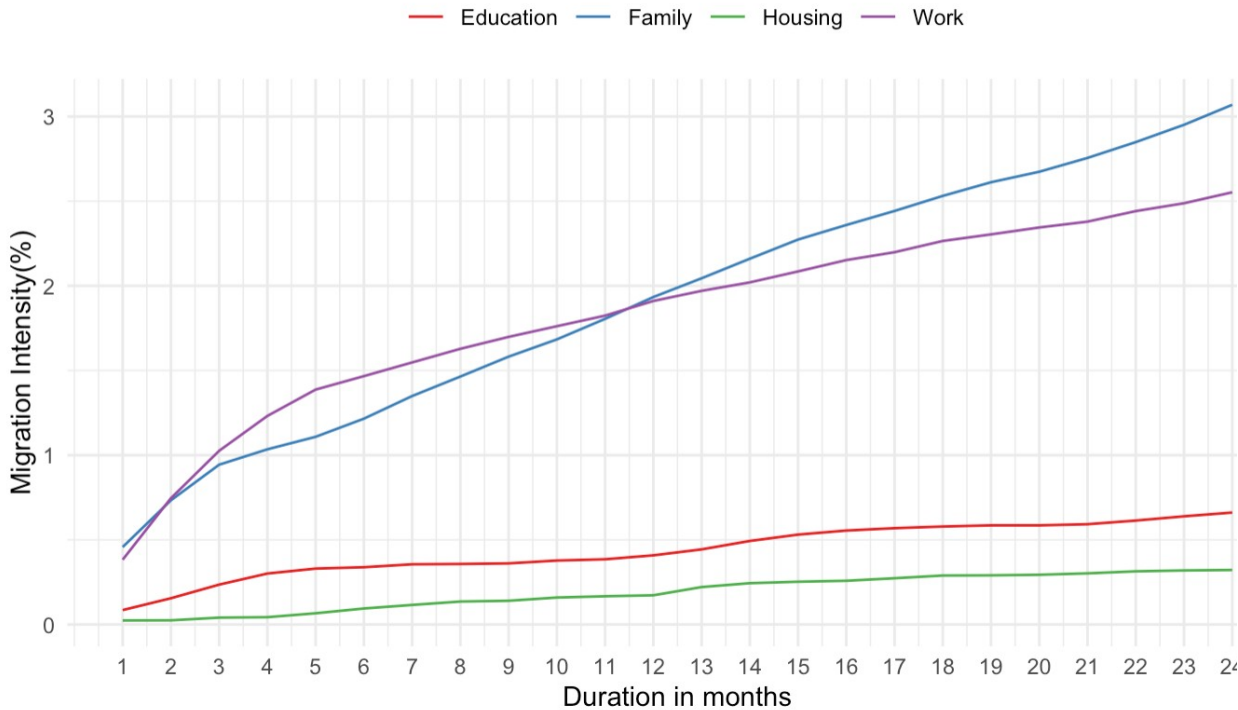
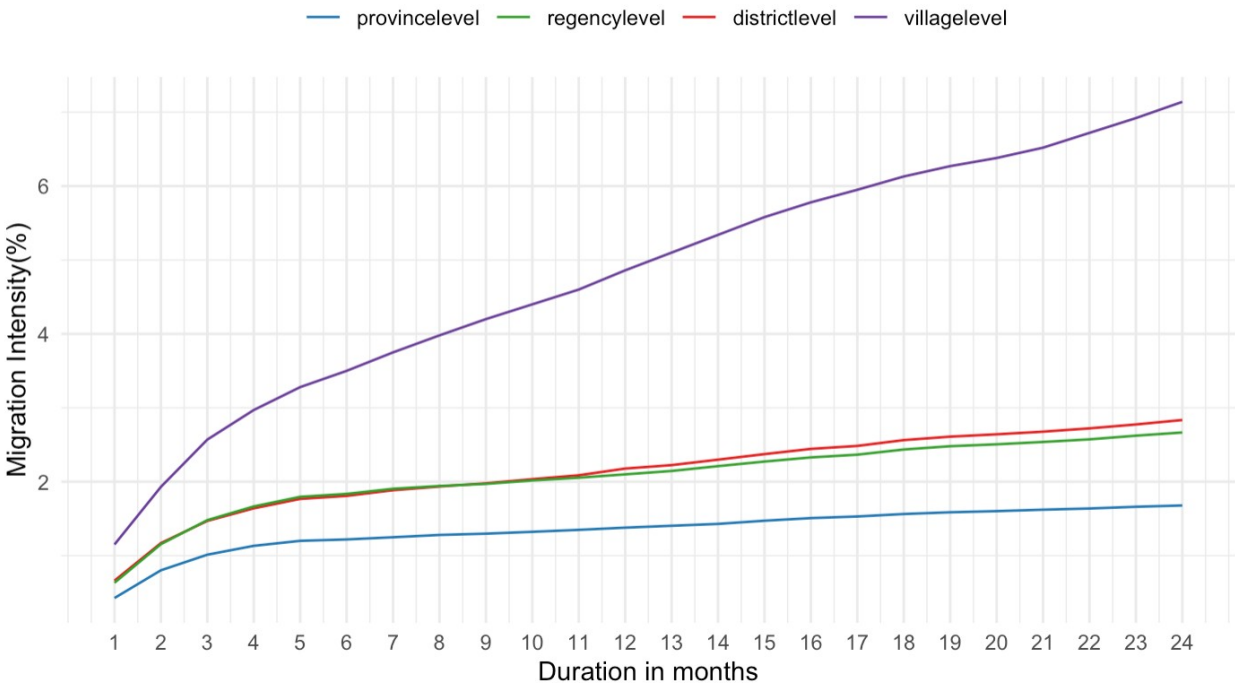


Figure 2a Crude Migration Intensity(CMI) at various spatial scale





Movement Selectivity: Method

- Use binary logistic models² to determine how sociodemographic determinants of migration vary by duration in month (**<=1 month, <=2 month ... <=24 months**).

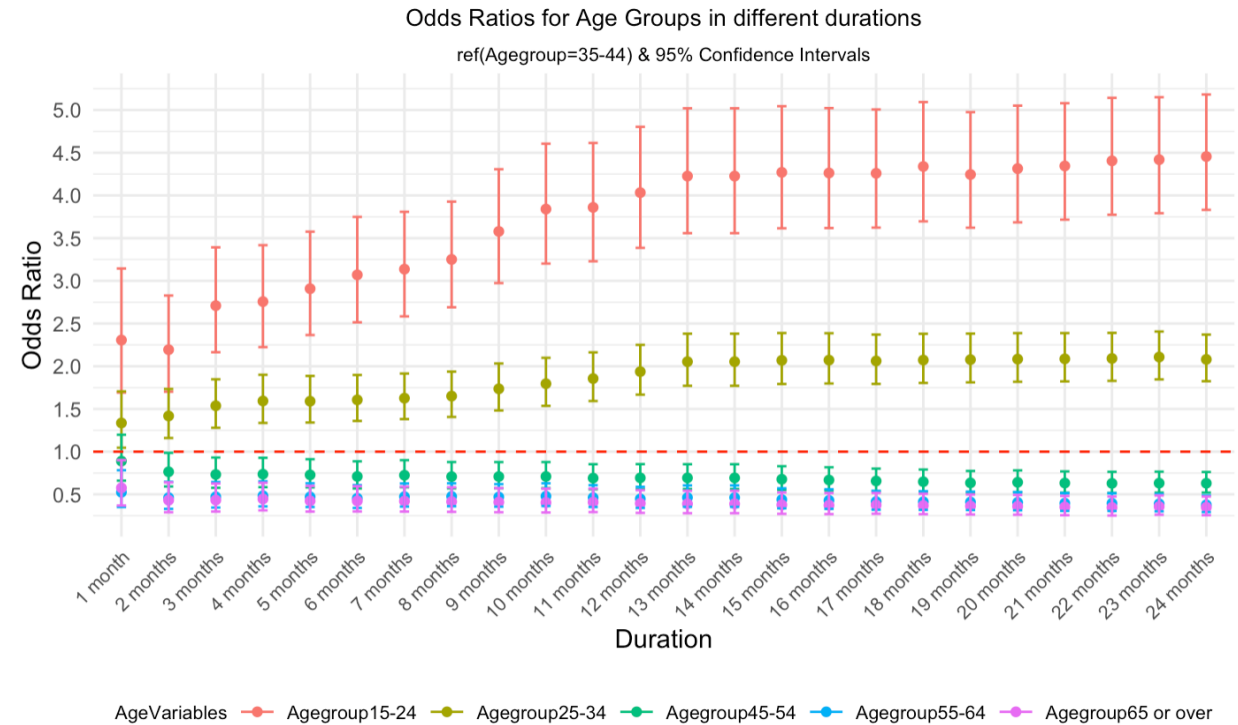
$$\log \frac{\mathbf{p}(\textit{Duration} \in \textit{months})}{1 - \mathbf{p}(\textit{Non} - \textit{migrant})} = \boldsymbol{\beta}_0 + \mathbf{x} \boldsymbol{\beta}$$

$\boldsymbol{\beta}$ represents a group of sociodemographic variables; and a dummy year variable was also included to account for the potential time effect on the outcome variable.

- The binary model runs for each accumulated duration separately(24 models).
- The model applies for different subsets of the data by 1) Movers for all purpose(n= 5670); movers with family purpose(n=2020) 2) movers with work purpose(n= 2438);3) Non-migrants: 12577

Selected odds ratios of movers (Age groups)

Figure 3a odds ratio for all movers



- For younger age groups, probability of moving is 2 to 4 times large or young adults relative to age 35-44.
- For older age groups, the probability is steadily lower regardless of durations relative to age 35-44.



odds ratios of movers (Gender)

Figure 5b odds ratio for movers of work purpose

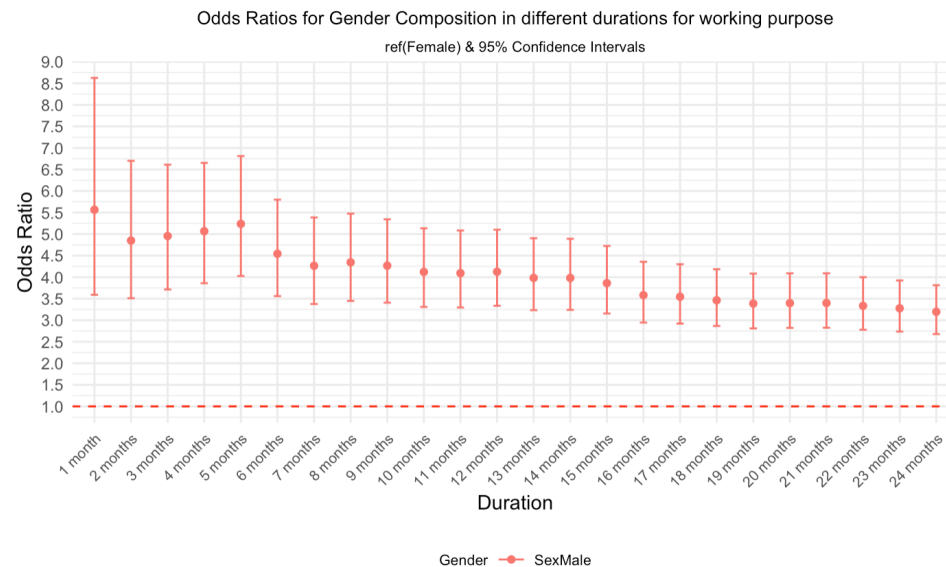
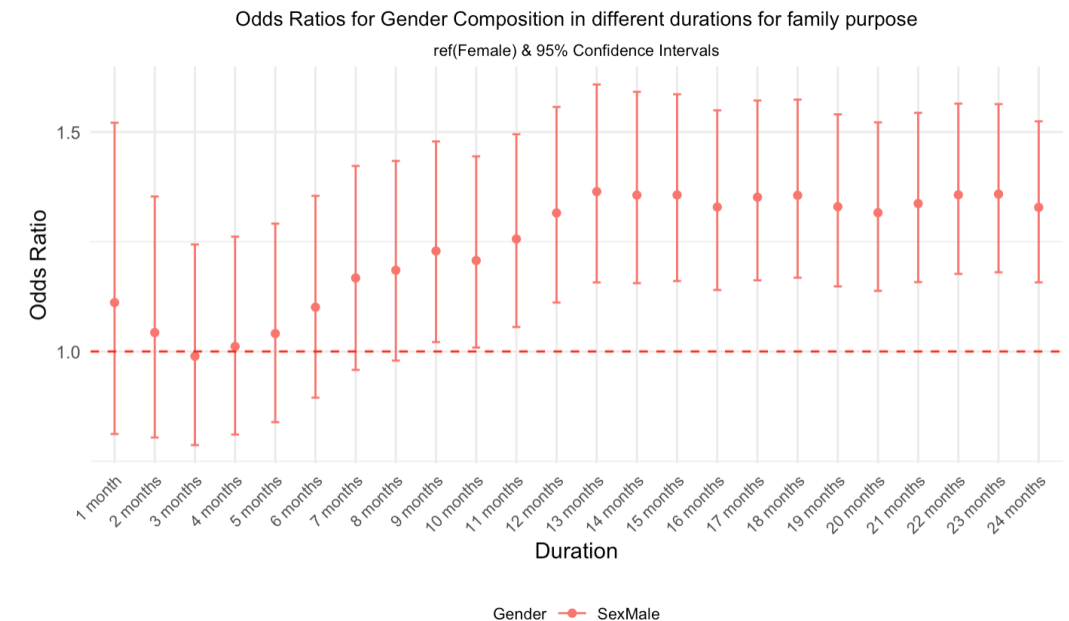


Figure 5c odds ratio for movers of family purpose



- The odds of moving for males are steadily high relative to females for working purpose movers.
- For family related movers, large CIs might indicate uncertainty in the estimate, especially for under 12-month duration.



odds ratios of movers (Marital Status)

Figure 4c odds ratio for movers of work purpose

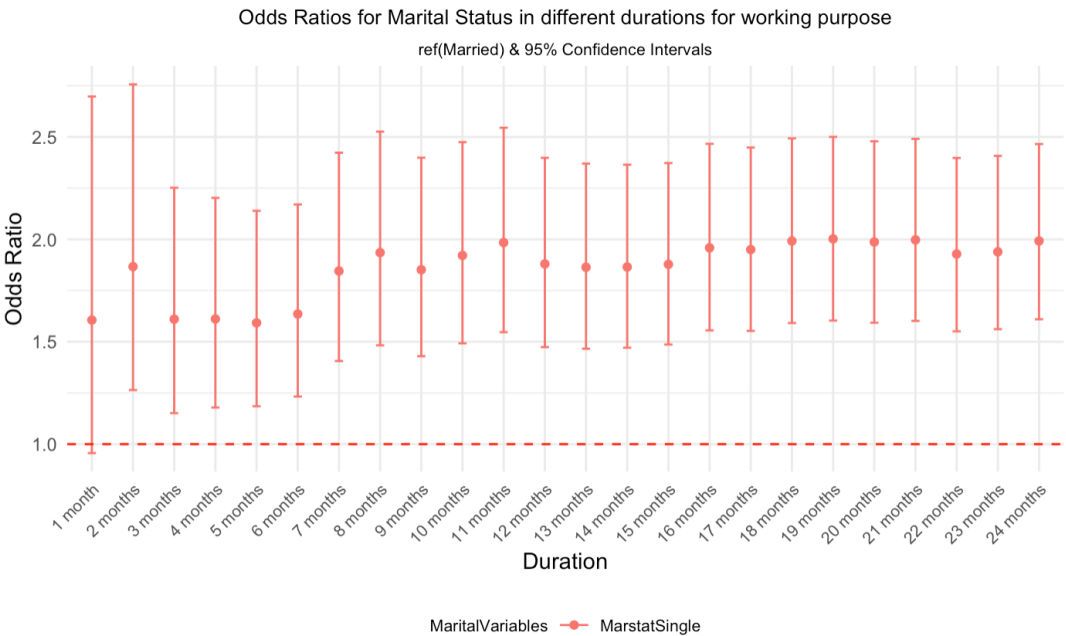
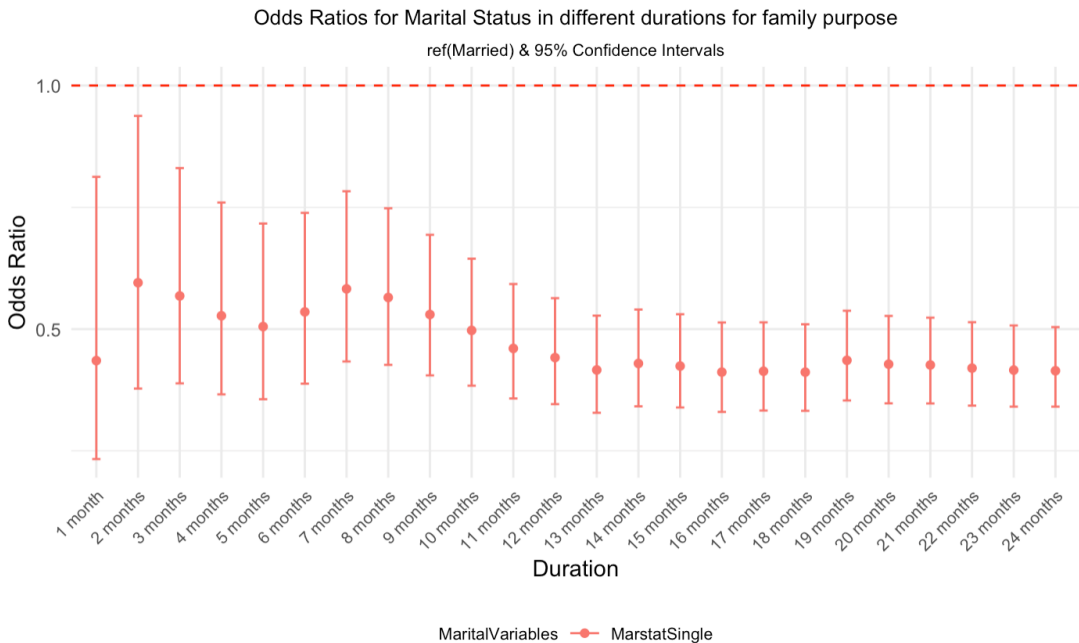


Figure 4b odds ratio for movers of family purpose



- Singles are more likely to move for working purpose while less likely to have family related moves regardless of durations.



Conclusion and limitation

Preliminary analysis

- The larger the spatial units, the higher the proportion of short-term movers. The measurement of temporary migration is sensitive to the number of spatial units.
- The influence of sociodemographic variables might be less likely to change over durations, but more likely to be different across different purposes. .
- The choice of duration threshold by purpose demands careful attention in study design and plays a vital role in shaping the scope and results of the study.
- This study is limited to the context of Indonesia, the duration in terms of months, and the two year-observation interval.



Research Background

- Thank you for listening!
- Q&A
- Email: v.wang@uq.edu.au