# Travel activity typologies and visualisation

- **Expand travel + activity diary into 10 minute bucketed time use diary for 24 hours.**

- **Each 10 minute bucket is associated to an activity.**

- **Chronological activities can be written as a sequence e.g.** *home-home-home-work-work-work..*

- **Using sequence analysis methods to cluster similar sequences.**

- **Clusters = typologies.**

Daily activity pattern typologies

Tripdays > 300 per cluster

(charts: Afternoon and evening activities; Education; Mainly home and errands; Mostly errands and leisure; Regular work - early departure; Regular work - late evenings)

Legend: home, work, leisure, education, visit, errands: shopping / personal, travel, other
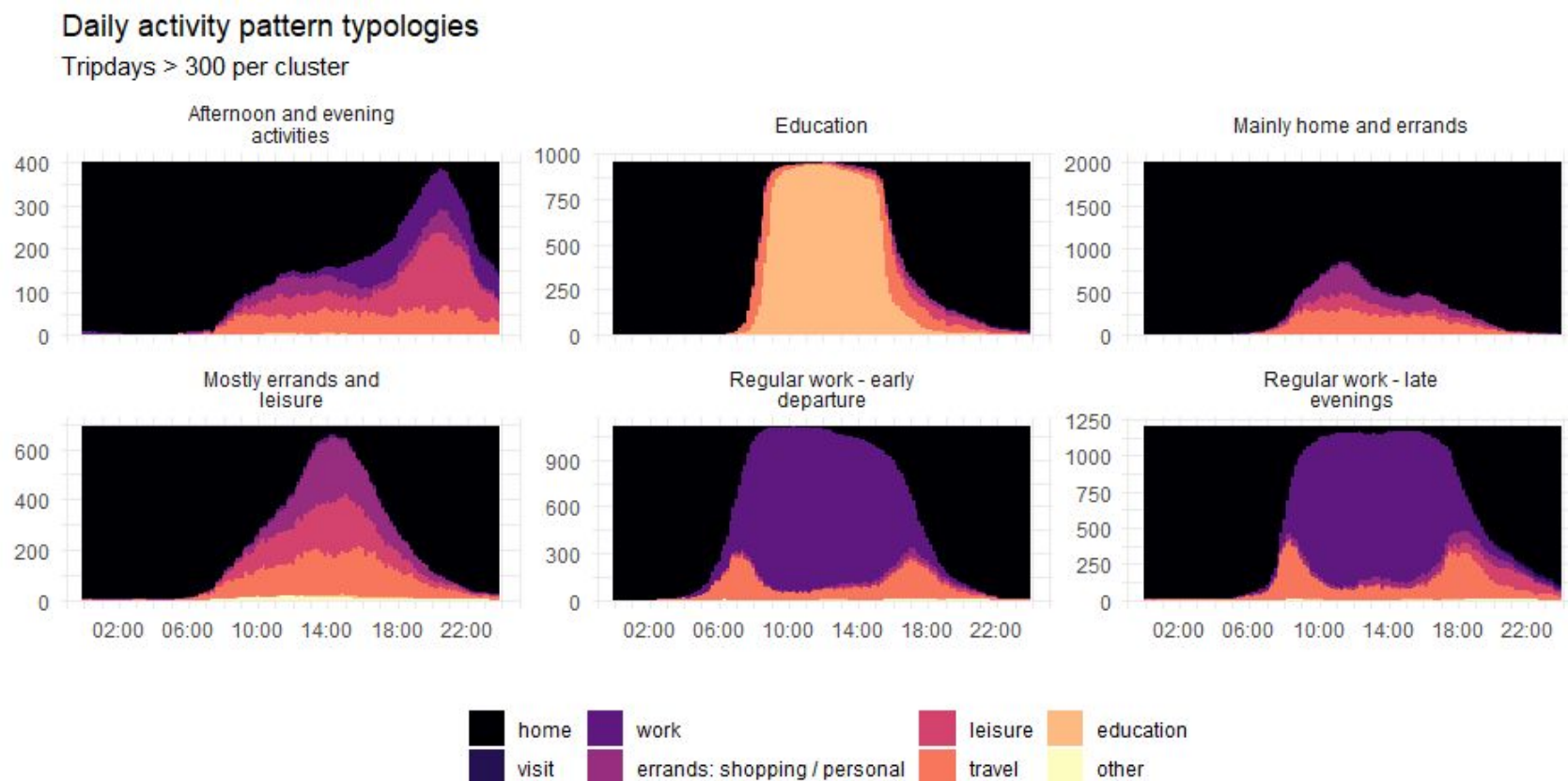
Connecting typologies to daily travel

- **Pro-rate distance during the travel "activity".**

- **Linear increase when survey respondents are travelling. No change at non-travel activity e.g. work.**

- **Regular work has strong patterns of going to work and staying at work.**

- **However, travel can happen throughout the day – spreading out the core trend.**

Normalised daily travel in 24 hours

Regular work - early departure

Regular work - late evenings
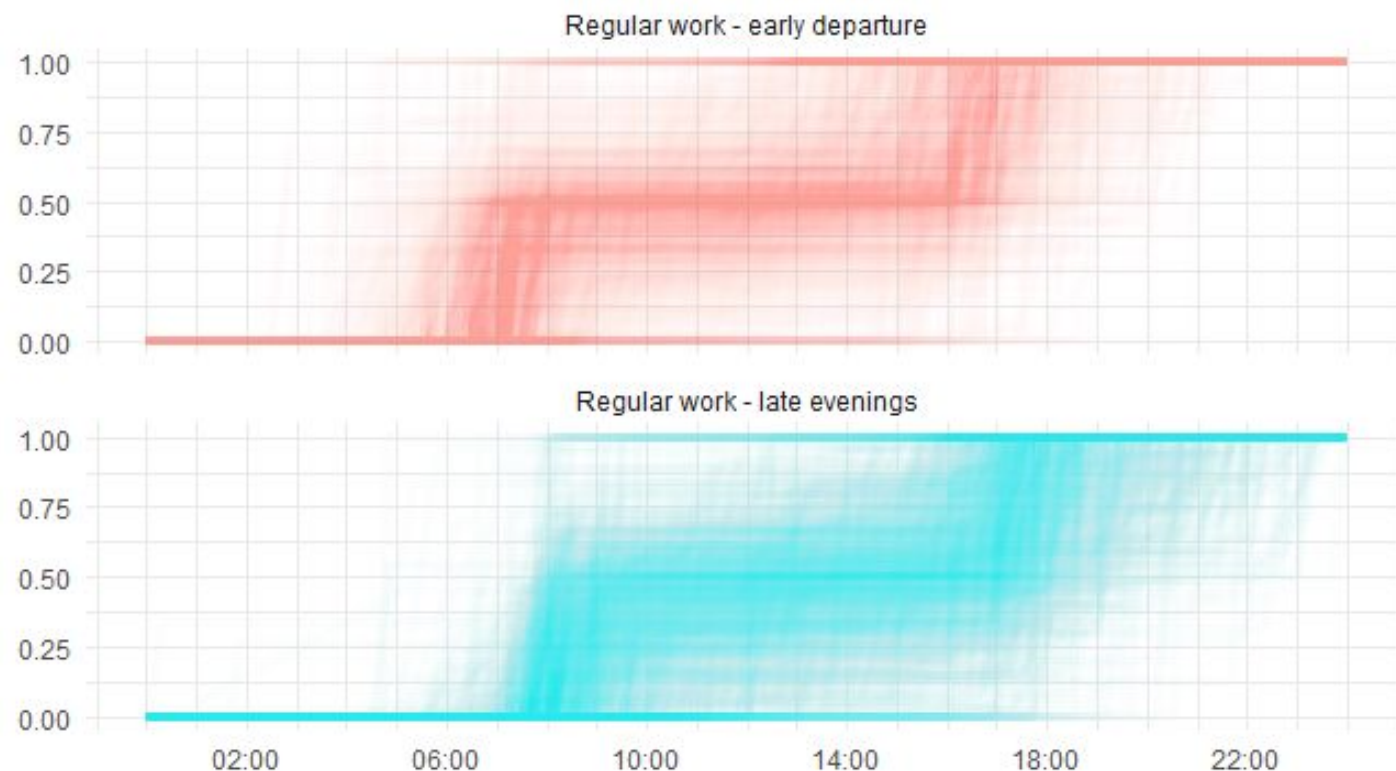
Connecting typologies to socio-demographics

- **In households with kids**
  - Women more likely to do daily activities involving home and errands.

- **In households without kids**
  - Women are again more likely to have activities involving home and errands but gender gap evens out.

- **Average ages very different across the two groups reflecting stage of life.**

Typology	F - household with kids	M - household with kids	F - household without kids	M - household without kids
Afternoon and evening activities	7%	5%	9%	6%
Education	2%	2%	1%	1%
Mainly home and errands	**38%**	**18%**	**41%**	**34%**
Mostly errands and leisure	11%	7%	12%	11%
Regular work - early departure	16%	35%	16%	26%
Regular work - late evenings	26%	33%	22%	22%

Typology	F - household with kids	M - household with kids	F - household without kids	M - household without kids
Afternoon and evening activities	39	40	59	57
Education	45	28	25	25
Mainly home and errands	**41**	**45**	**65**	**68**
Mostly errands and leisure	40	40	64	65
Regular work - early departure	44	42	50	49
Regular work - late evenings	43	42	48	51

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