Parallel Coordinate Plots for Visualisation of Longitudinal Survey Data

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Longitudinal visualisation

• Goals:
  ▪ Longitudinal/panel survey data
  ▪ Direct visualisation
  ▪ Facilitate exploration
  ▪ Integration with ASSDA website
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- **Data contains:**
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- **Pilot project challenge:**
  - How to visualise this data usefully?
Mapping data to space

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![Graph showing 3D scatterplot](image)
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Visualising multi-dimensional data

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Advantages

- Allows many dimensions
- Straightforward mapping
- Human perceptual system is good at seeing connectedness and patterns
• Common values cause ambiguity
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• Solution (a): Curves
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Challenge: Axis parameters

- View affected by axis ordering, sign, scaling, translation
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- Solution: Interactive manipulation
Application to NLC

- Navigating the Life Course survey (NLC)
  - 3 waves, unbalanced
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  - At each wave
  - Employed, unemployed, NILF
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  - Retrospective (since age 15, up to 40 years)
  - Full-time, part-time, none
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• Relationship path to first birth
  ■ Retrospective (since age 15, up to 40 years)
  ■ Single, co-habiting, married
Labour force status
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Work/study: separately by year
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Work/study: combined by age
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