Recap of changes to population projections

SRP Liaison Group

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CITY INTELLIGENCE

Content

- Revised population/migration estimates
- Migration scenarios
- Household formation rates

Revised population/migration estimates

- Background
- Overview of approach
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- Future plans

Background

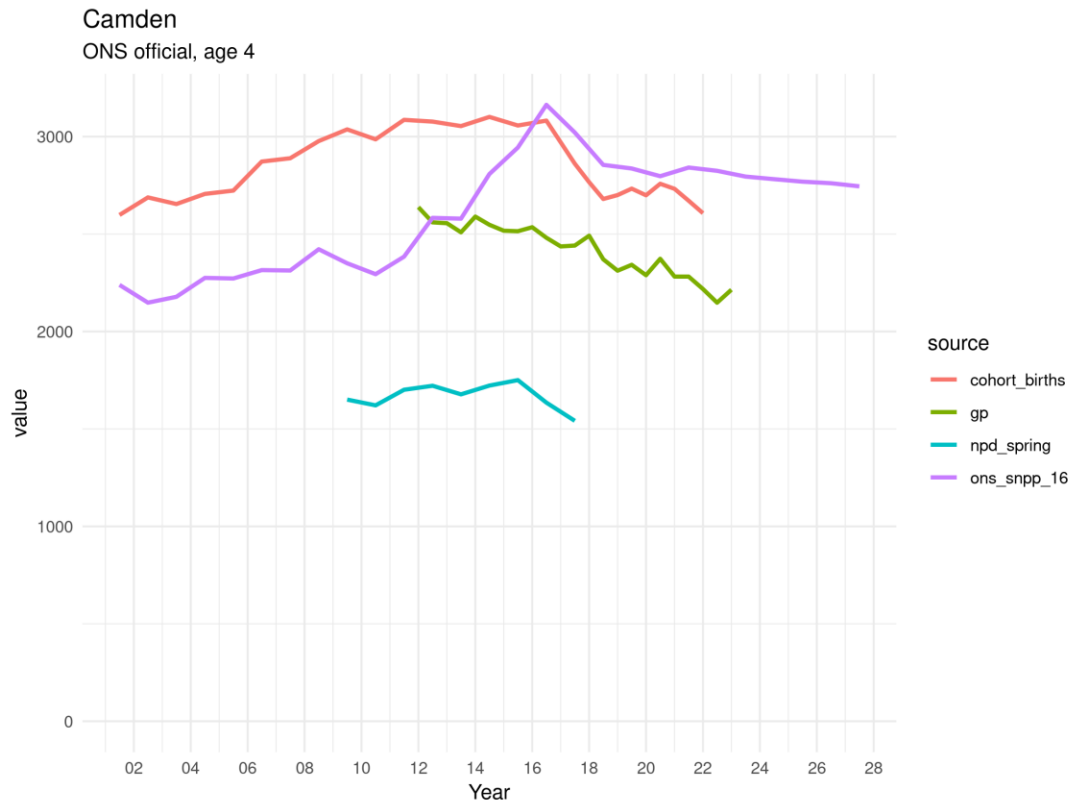
- Problems with official estimates identified last year
  - Inflated estimates of children
  - Unrealistic variation between successive cohorts of children
- Impacted results of 2017 SRP
  - Over projection of reception rolls
- Limited time to make adjustments ahead of 2018 SRP
- Have since worked with ONS to establish cause of problems

Background

- Last year's projections
  - Range of adjustments aimed at reducing impacts on roll projections
  - Users received different versions of projections with different adjustments
  - Relied on judgement to determine which variant to use case-by-case
- New projections
  - Fundamental changes to migration and starting population estimates
  - Standardised approach used for all projections

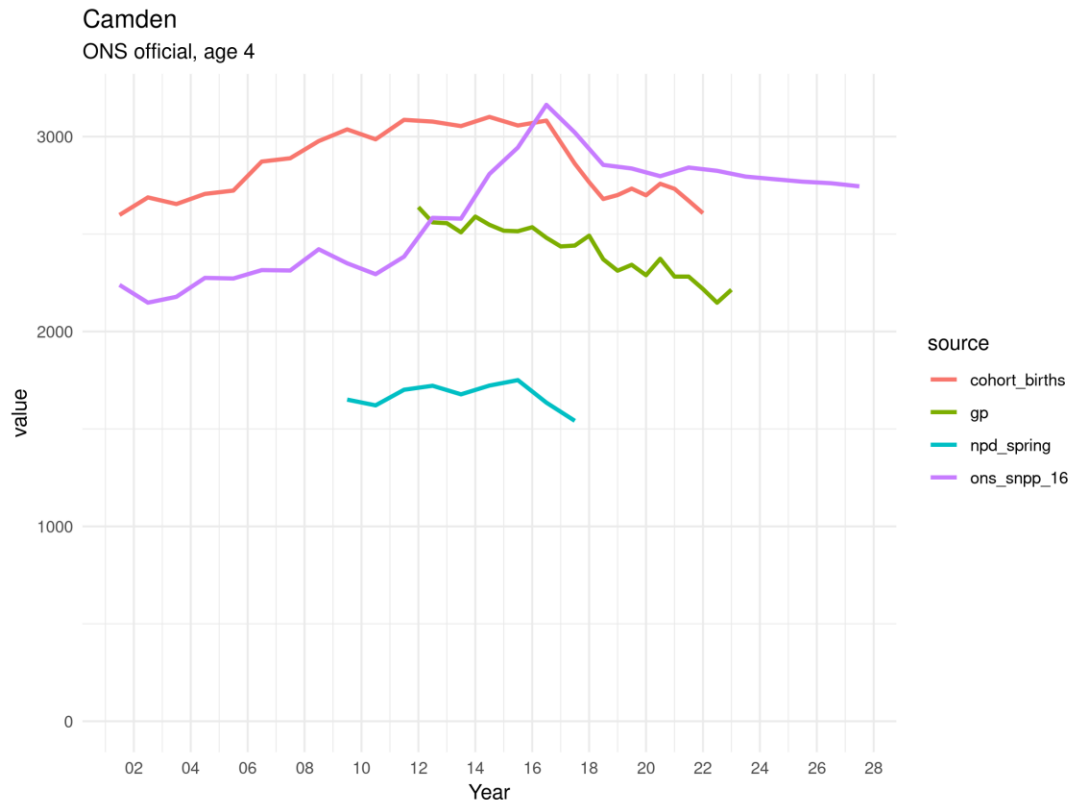
Inflated estimates of children

- Result of error in international migration estimates
- Change in ONS methodology after 2011
- International outflows of children captured less well than inflows
- Mostly a London problem (especially Central London)



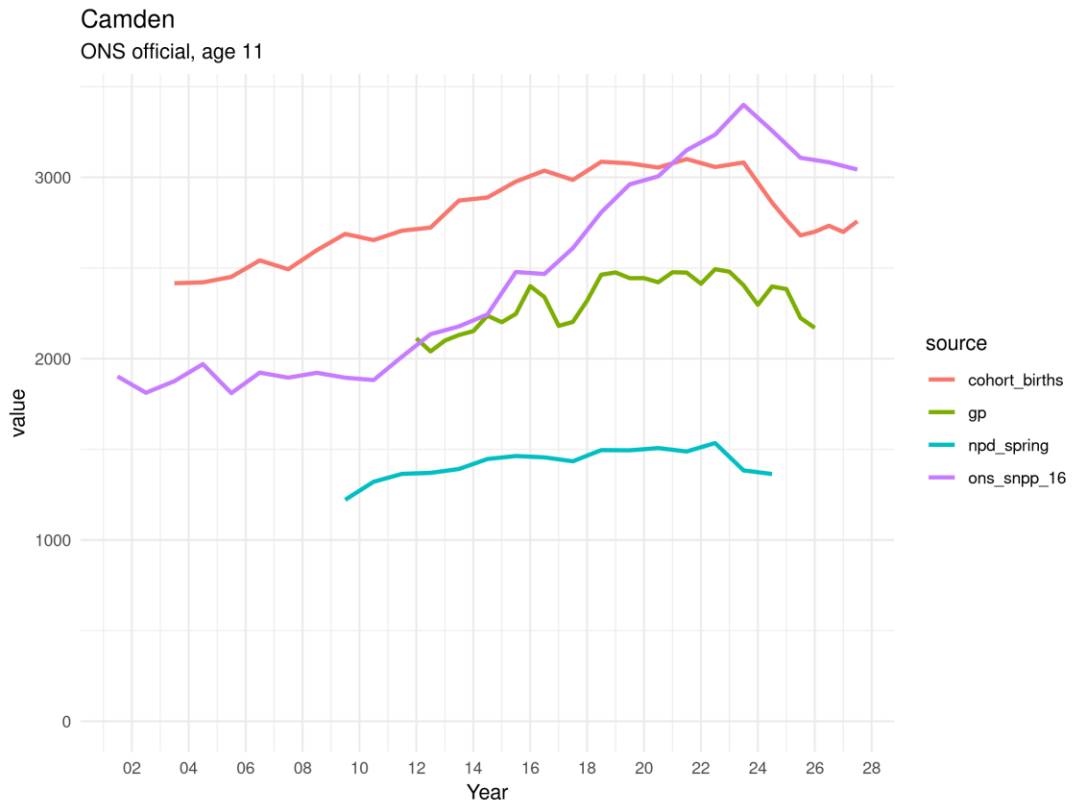
Inflated estimates of children

- Inflation occurs each year after 2011
- Reaches maximum impact for age 4 children in mid-2016



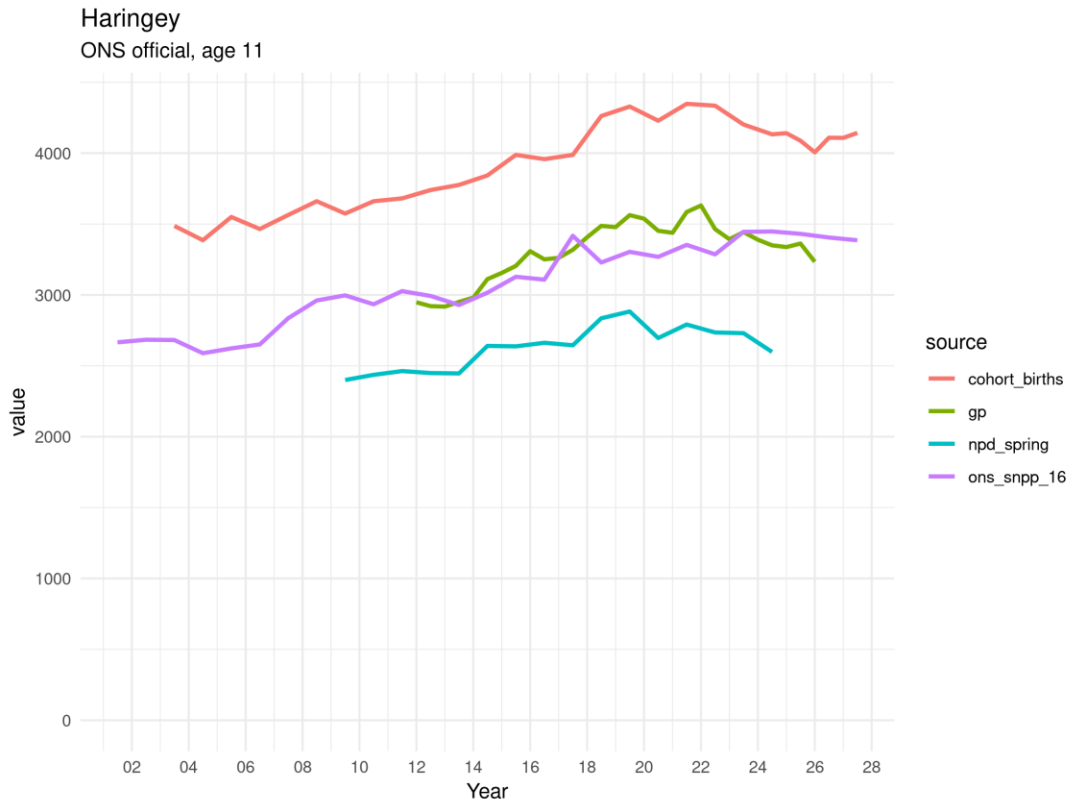
Inflated estimates of children

- Inflation occurs each year after 2011
- Reaches maximum impact for age 4 children in mid-2016
- And for age 11 children in mid-2023



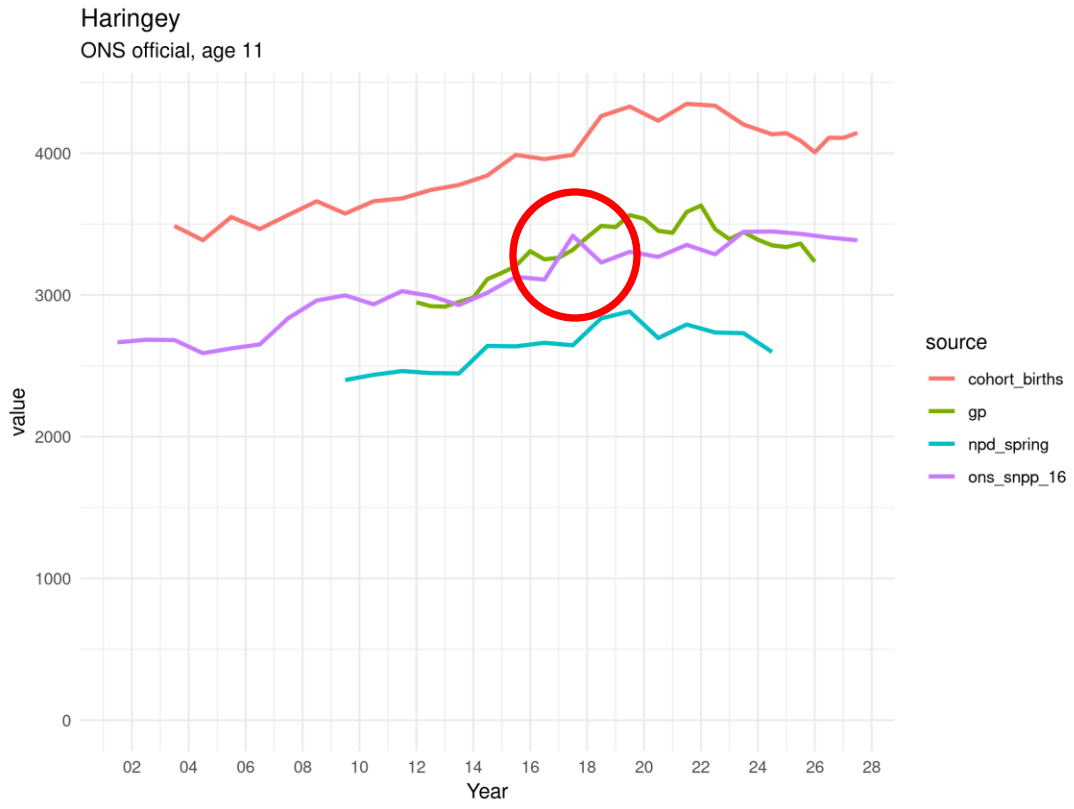
Variation between successive cohorts of children

- Result of random errors in 2011 Census
- Rolled forward in successive estimates/projections
- Minor issue overall, but roll projections can be sensitive to it



Variation between successive cohorts of children

- Result of random errors in 2011 Census
- Rolled forward in successive estimates/projections
- Minor issue overall, but roll projections can be sensitive to it
- Can be hard to spot…



Overview of approach

- Create new sub-regional estimates of children
- Estimate consistent international migration series
- Distribute between individual local authorities
- Substitute replace official data for 0-17 year olds

Create sub-regional estimates of children

- Primarily based on schools data
  - State-funded by residence of pupil
  - Independent by location of school only
  - Cross-border flow of independent pupils less significant at larger geographies
- Time-series for mid-2009 to mid-2017
- Initial estimates for ages 5 to 14
  - Data for other ages less complete

Estimate consistent international migration

- Estimates used to create time series of annual change for each cohort
- Assume ONS estimates of domestic migration & deaths correct
- Difference assumed to represent net international migration

Complications

- Modelling transitions for younger ages from birth-to-5 change
- Splitting net international migration between in- and out-flows
- Inconsistency of data over time

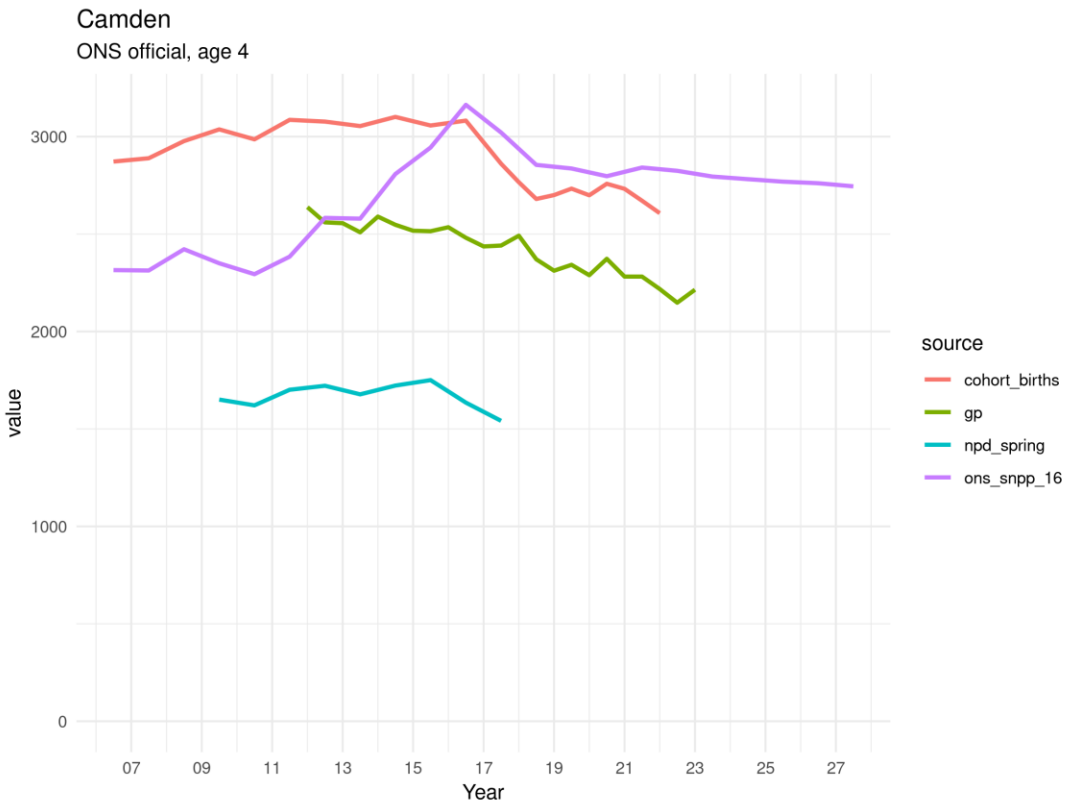
Distribute between individual local authorities

- Sub-regional population estimates disaggregated using:
  - GP registration data – allocation using each LA's share of overall GP register for subregion
  - State-funded roll data – used to determine minimum plausible population counts
- International migration calculated as for subregion

Substitute replace official data for 0-17 year olds

- 15-17 year old population created by allowing younger ages to age through
- Official mid-year estimates data retained for 18+ population
- 0 to 17 data replaced with revised estimates and combined series used as basis for population projections

Illustration of results: Camden age 4



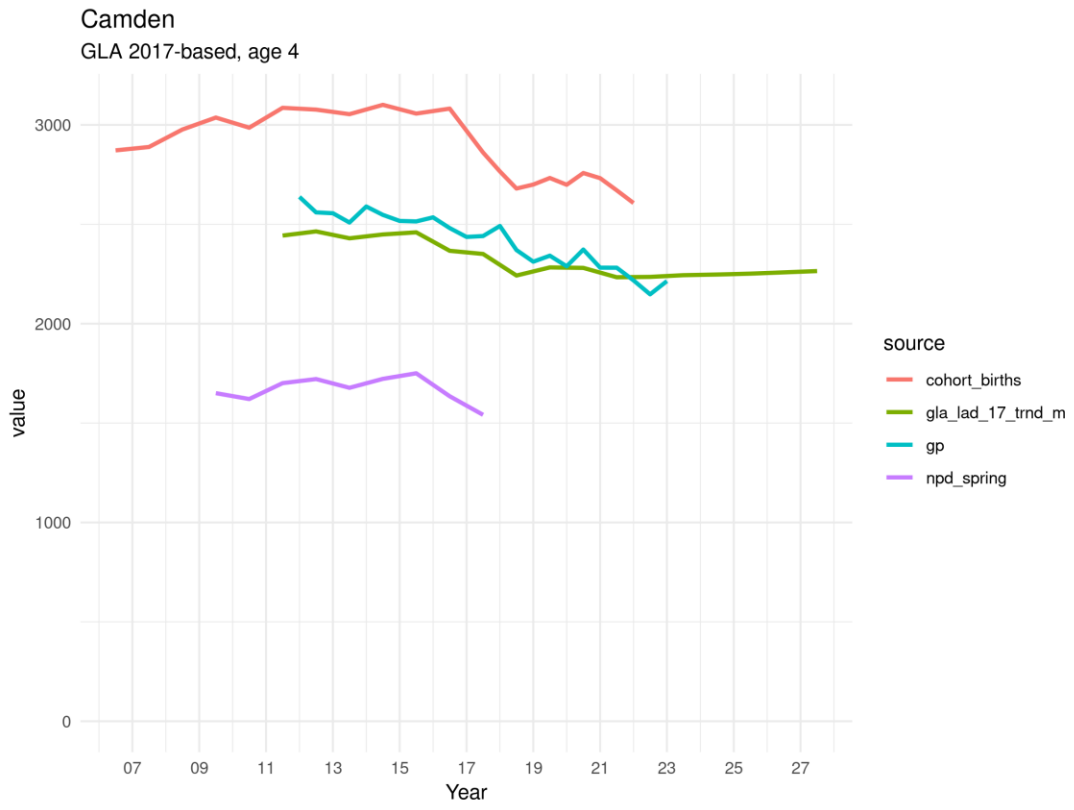
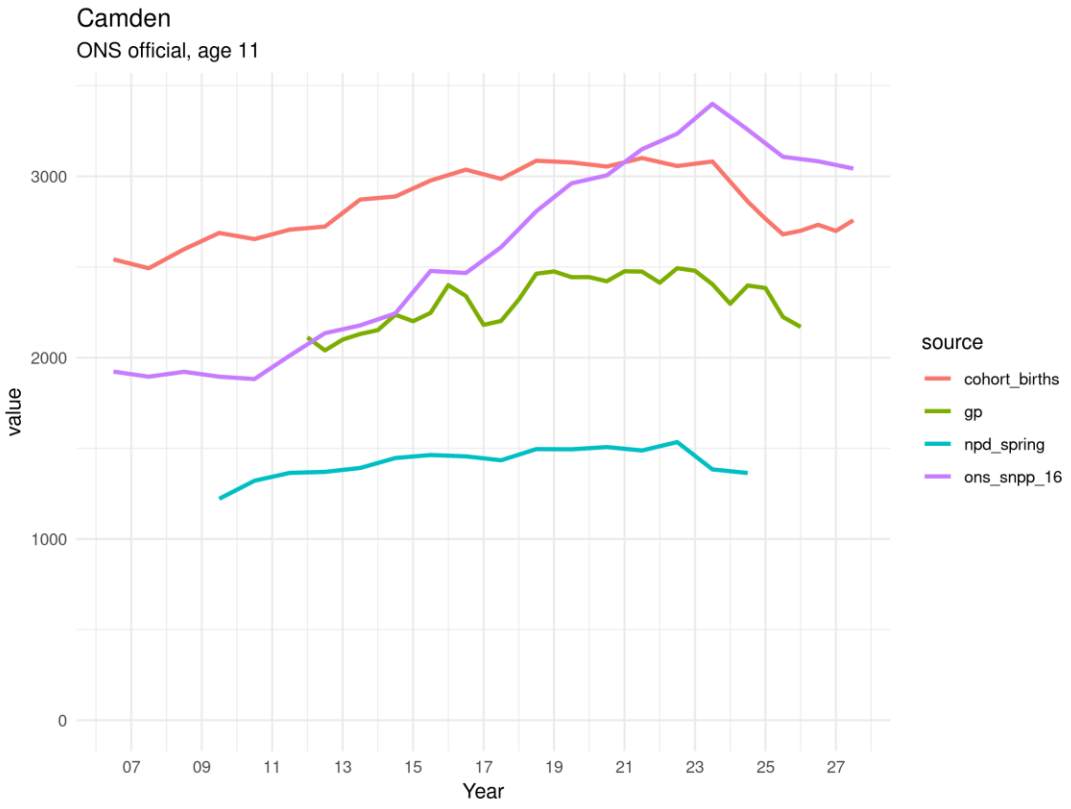


Illustration of results: Camden age 11



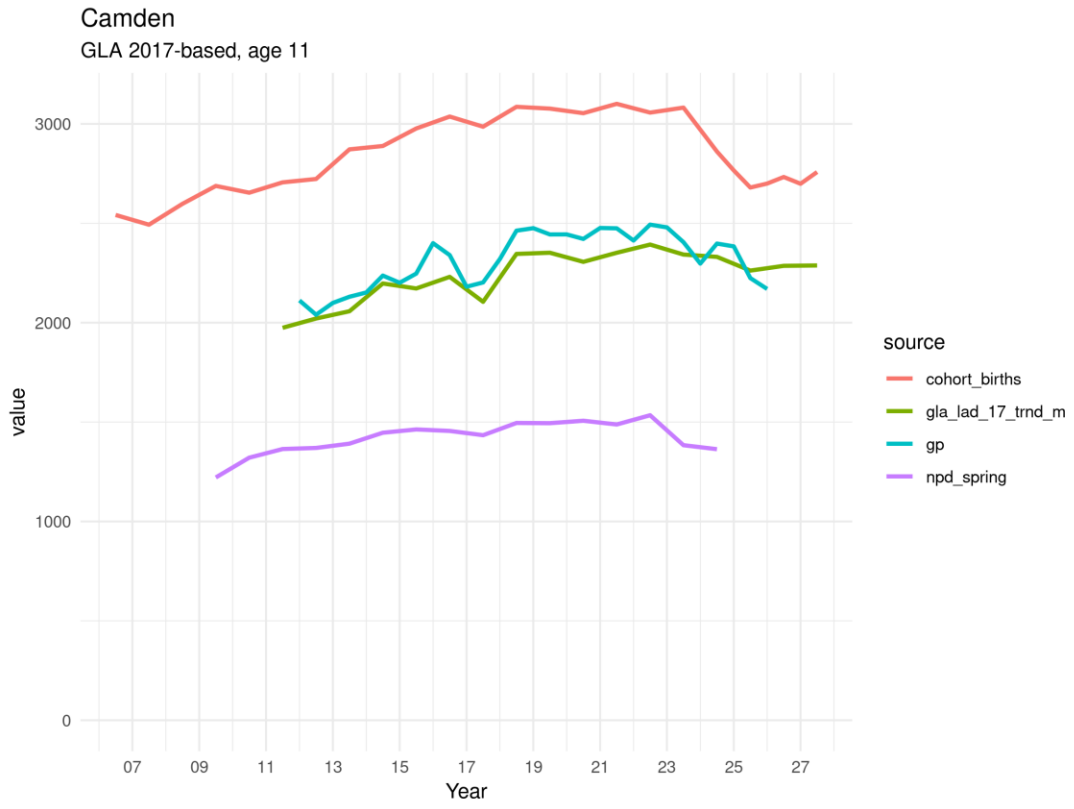


Illustration of results: Haringey age 11