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# Vivarium Population Spender: Immigration Module

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Works for me

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Vivarium Population Spenser

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## ABSTRACT

Description of the steps followed by Vivarium Population Spenser library when running the Immigration module.

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## MATERIALS TEXT

The table used in the Immigration component to determine to total number of migrants into a local authority and to sample the gender, age and ethnicity of the immigrants are found here:

[https://github.com/alan-turing-institute/daedalus/blob/develop/persistent\\_data/Immig\\_2011\\_2012\\_LEEDS2.csv](https://github.com/alan-turing-institute/daedalus/blob/develop/persistent_data/Immig_2011_2012_LEEDS2.csv)

The table used in the Immigration component to assign a MSOA to the new immigrants are found here:

[https://github.com/alan-turing-institute/daedalus/blob/develop/persistent\\_data/Immigration\\_MSOA\\_M\\_F.csv](https://github.com/alan-turing-institute/daedalus/blob/develop/persistent_data/Immigration_MSOA_M_F.csv)

## ABSTRACT

Description of the steps followed by Vivarium Population Spenser library when running the Immigration module.

- 1 Get the total number of immigrants expected for that local authority on a year from a local authority level international migration table.

- 2 Divide the number of total immigrants to be assigned by the number of steps existing in that year.
- 3 For each time step:
  - 3.1 Add the fraction of immigrants to be assigned in one time step to the state table of that local authority.
  - 3.2 Assign these new immigrants an ethnicity, age and sex sampling from rates extracted from the local authority level international migration table.
  - 3.3 Assign the new immigrants an MSOA based on their age and gender from rates extracted from table of international migration at the MSOA level.