



Home Office

Refugee Integration Outcomes (RIO) Insights

Data linkage methods and analysis from linked Census 2021 and administrative data for asylum and resettled refugees in England and Wales between 2015 and 2021

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Refugee Integration Research and Analysis | Home Office

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What does integration look like?

Integration results in “*communities where people, whatever their background, live, work, learn, and socialise together, based on shared rights, responsibilities and opportunities*”.

[Home Office Indicators of Integration Framework, 2019](#)

What are the aims?

Integration helps people **realise their full potential**.

There is a **net positive economic impact** of integrating refugees (particularly into employment).

What are the consequences of poor integration?

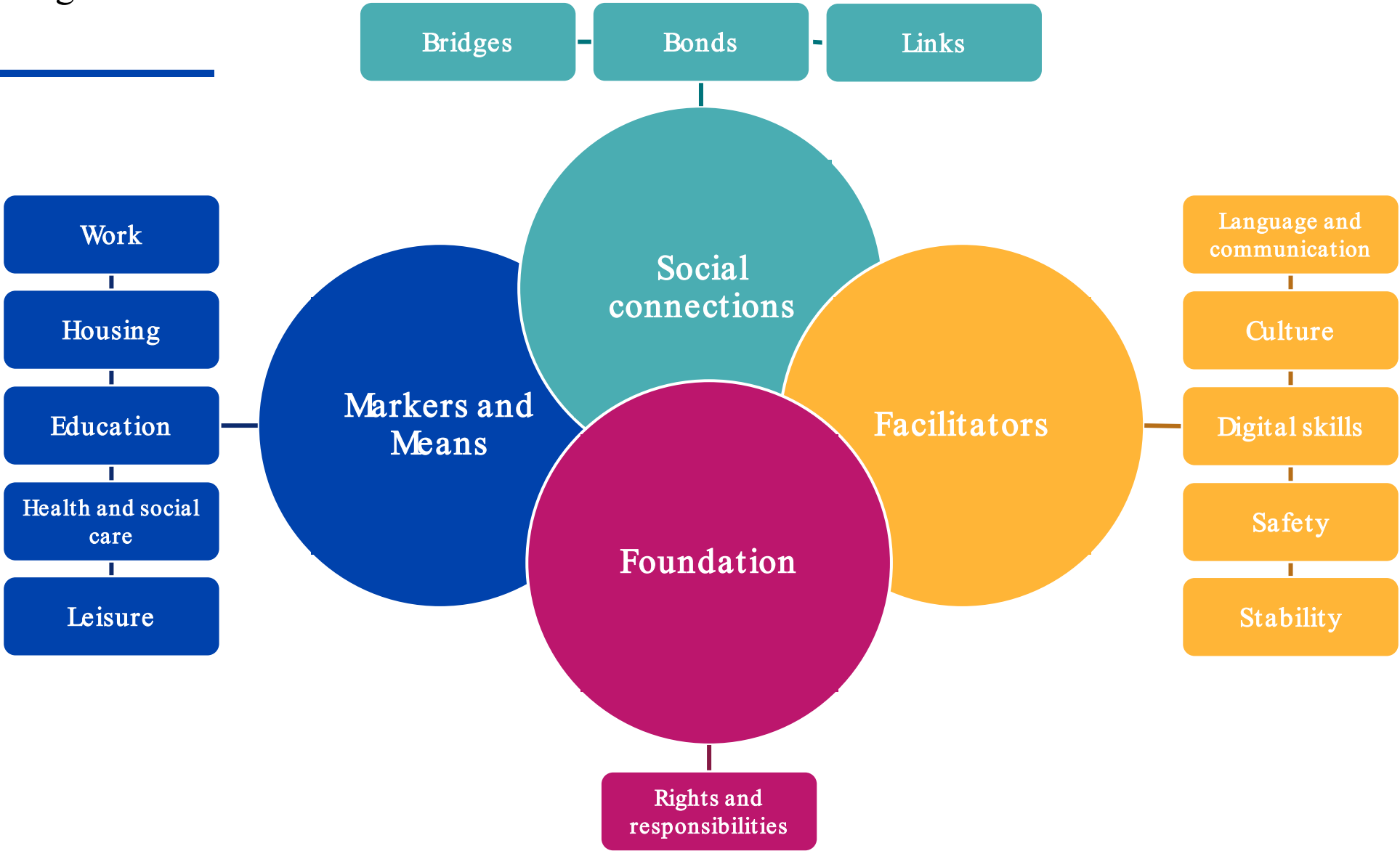
Individuals experience **isolation, unemployment, and poor health**.

There is a **negative impact on social cohesion** and community empowerment.

Successfully
integrating
refugees benefits
the whole of
society

The Indicators of Integration Framework 2019

The Home Office Indicators of Integration Framework 2019 highlights that **refugee integration is multi-faceted and relies on contributions from all parts of society.**





What is RIO?

RIO is **longitudinal data linking project** owned by the **Home Office** and **Office for National Statistics**.

Aims and objectives

To provide **new insights into social and economic integration**, including **employment, housing, health, education, English language proficiency**, and more.

Intended outcomes

A **linked dataset** to be made widely accessible to researchers to **enable understanding of long-term integration outcomes**.

Linkage methods

Exact Matches

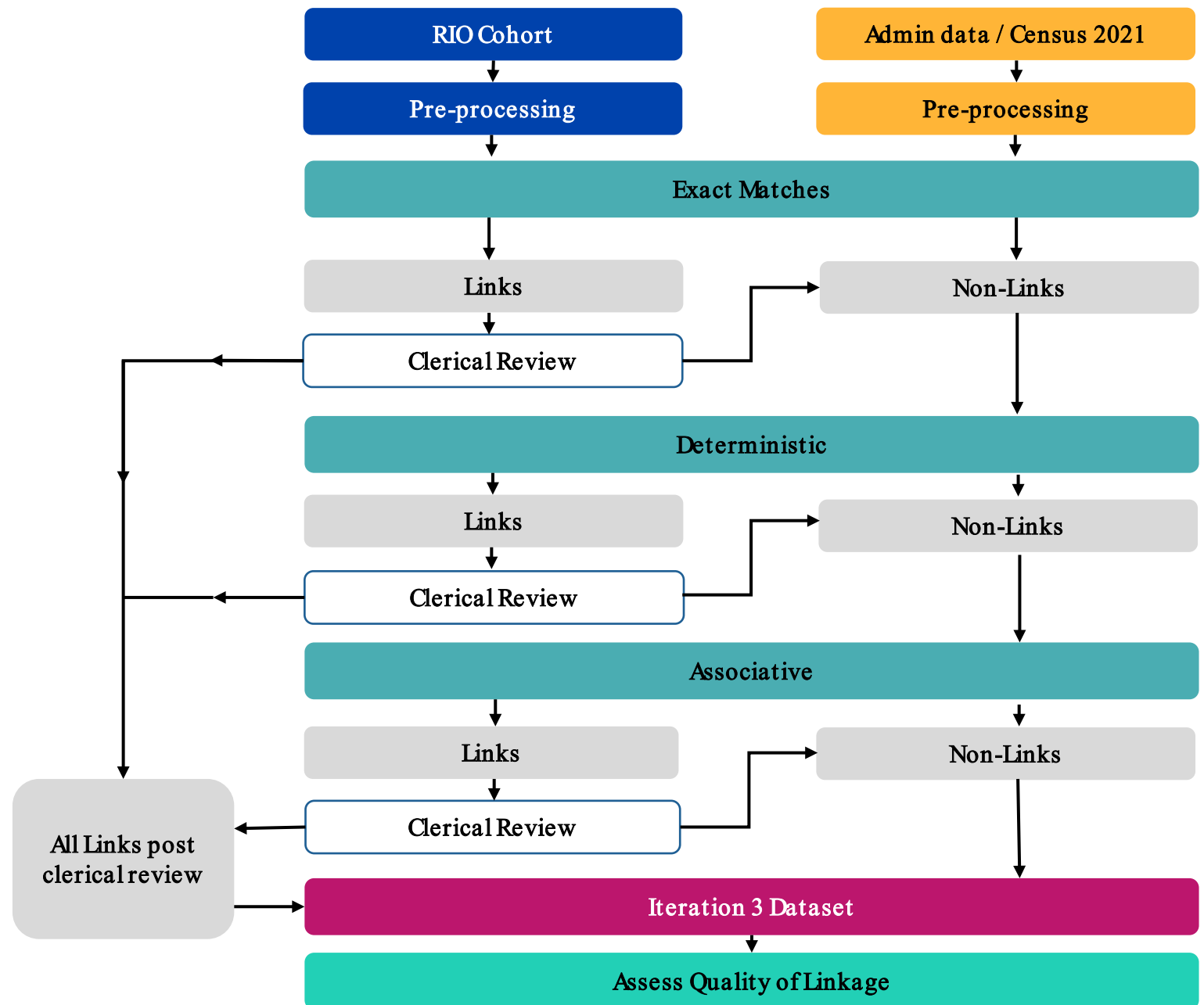
- On unique identifier.
- Not available with all Admin data sources

Deterministic


- Match keys

Associative

- Family ID/ proxy
- Clerical review at all stages of all pairwise matches and conflicts




Linkage methods



Probabilistic Data Linkage (Splink)

- Python package
- Uses probability theory to assess whether two records are a match
- Additional step to follow deterministic linkage allowing for partial matching on match keys
- Clerical input still required



Clerical review

- Clerical review is run by researchers and allow judgment calls to be made that code won't pick up
- Conflict resolution
- Identifying false links and false-positive estimation
- Understanding types of matches / false-matches produced on certain match-keys

We have successfully linked data to and drawn insights on resettled refugees and those granted asylum

Current scope of the dataset

1. Approximately **22,000 resettled refugees** who arrived in the UK via the Vulnerable Persons Resettlement Scheme and Vulnerable Children's Resettlement Scheme (VPRS and VCRS) schemes between 2014 and 2021 (RR)
2. Approximately **105,000 refugees granted asylum in the UK** between 2015 and 2020 (ARR)

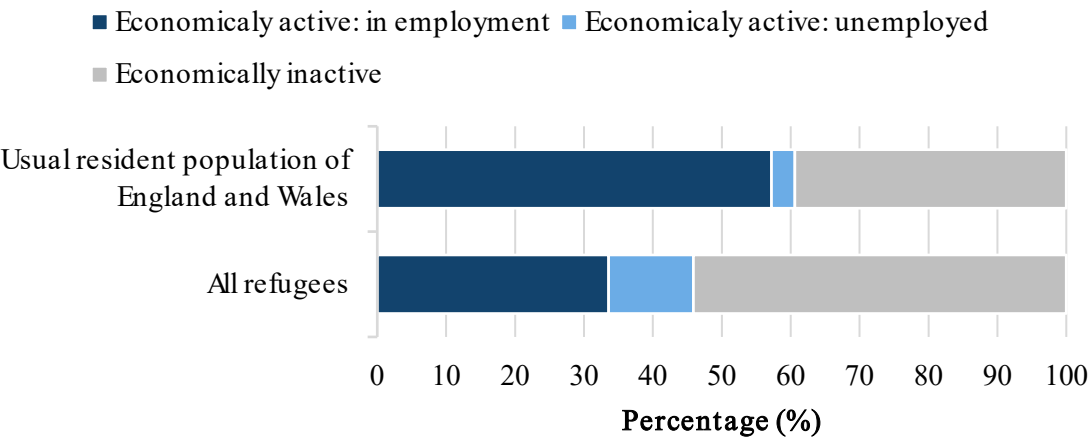
Already linked datasets

- Home Office Borders and Immigration (HOBI) data
 - To determine whether refugees have remained in or left the UK
- Birth notifications data (NHS)
- Birth Registrations and Death Registrations (General Register Office)
- NHS Personal Demographic Service (PDS)
 - Whether someone has registered with a GP
 - Location data
- **Census 2021 data for England and Wales (ONS)**
 - Employment, household composition, education level, language proficiency

Nearly half as many refugees are in employment compared with the general population of England and Wales, but there are differences between different cohorts of refugees

Asmaller proportion of refugees are in employment compared with the general population of England and Wales

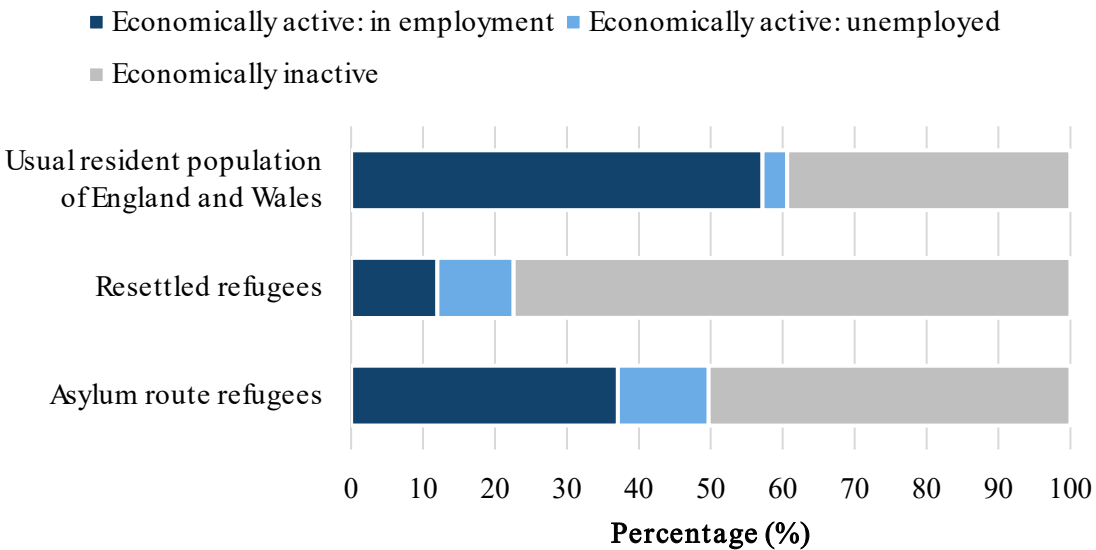
All RIO refugees compared with the usual resident population of England and Wales, economic activity status (Census 2021, classification 4a), 2015 to 2021, England and Wales



Source: Home Office VPRS, VCRS, and asylum refugee data linked to Census 2021 from the Office for National Statistics.

There is a marked difference in economic activity and employment rates when comparing resettled and asylum route refugees

All RIO refugees compared with the usual resident population of England and Wales, economic activity status (Census 2021, classification 4a) by RIO cohort, 2015 to 2021, England and Wales

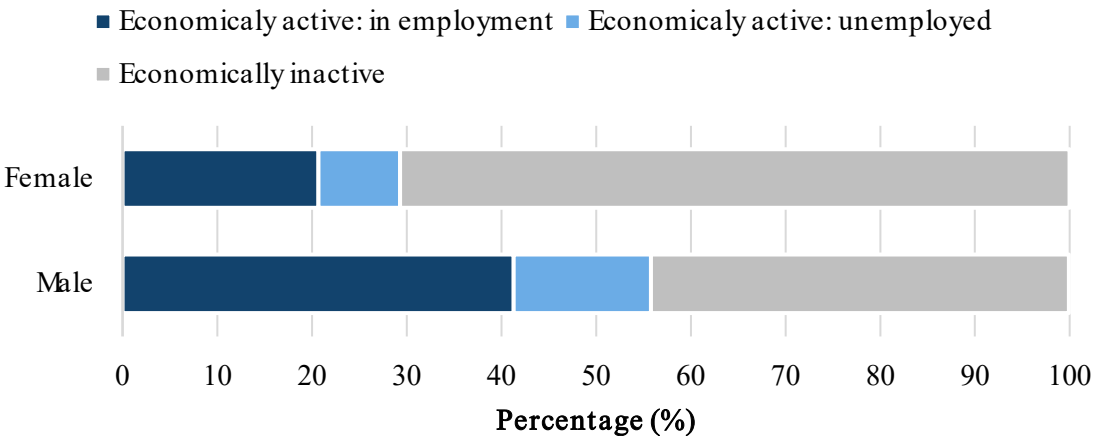


Note: ARR - Asylum route refugees; RR – resettled refugees
Source: Home Office VPRS, VCRS, and asylum refugee data linked to Census 2021 from the Office for National Statistics.

A smaller proportion of women are in employment than men, but resettled refugee women are the least likely to be in employment

Alarger proportion of men are in employment than women

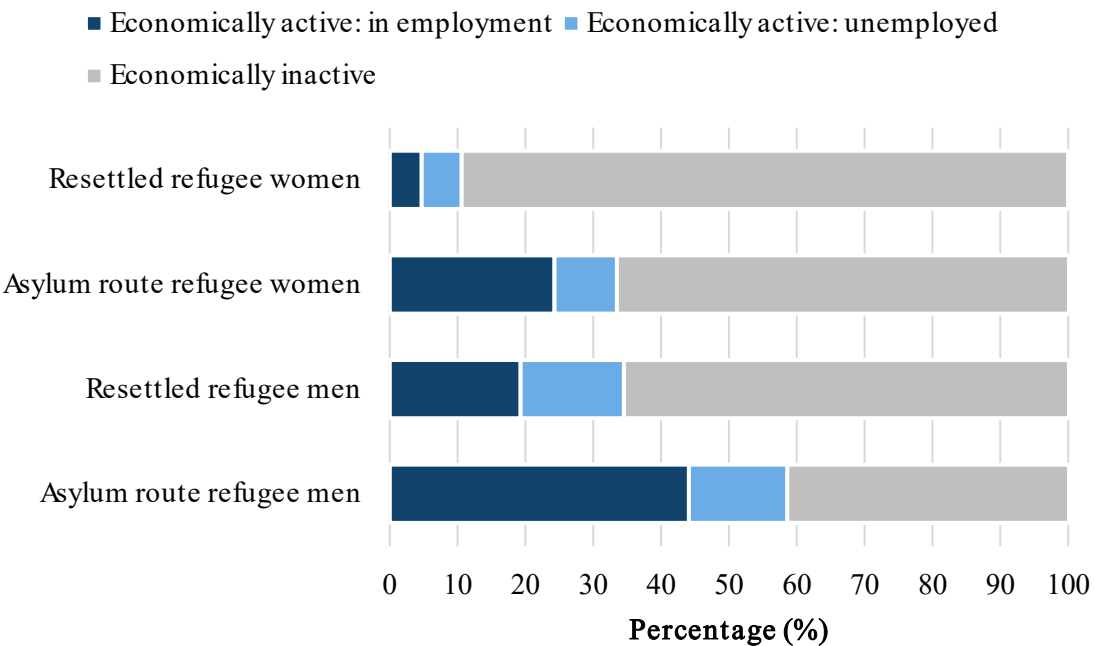
All RIO refugees, economic activity status (Census 2021, classification 4a) by sex, 2015 to 2021, England and Wales



Source: Home Office VPRS, VCRS, and asylum refugee data linked to Census 2021 from the Office for National Statistics.

Resettled refugee women have a very low rate of employment compared to all other groups

All RIO refugees, economic activity status (Census 2021, classification 4a) by sex and RIO cohort, 2015 to 2021, England and Wales



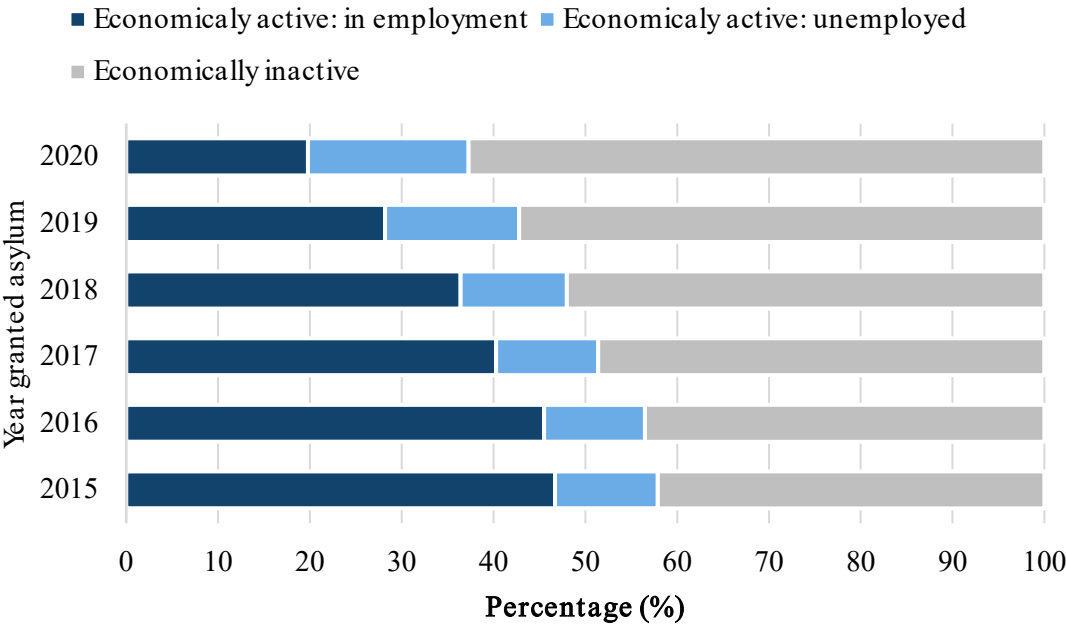
Note: ARR - Asylum route refugees; RR – resettled refugees

Source: Home Office VPRS, VCRS, and asylum refugee data linked to Census 2021 from the Office for National Statistics.

The proportion of refugees in employment steadily increases over time

Refugees who have been here longer are more likely to be in employment

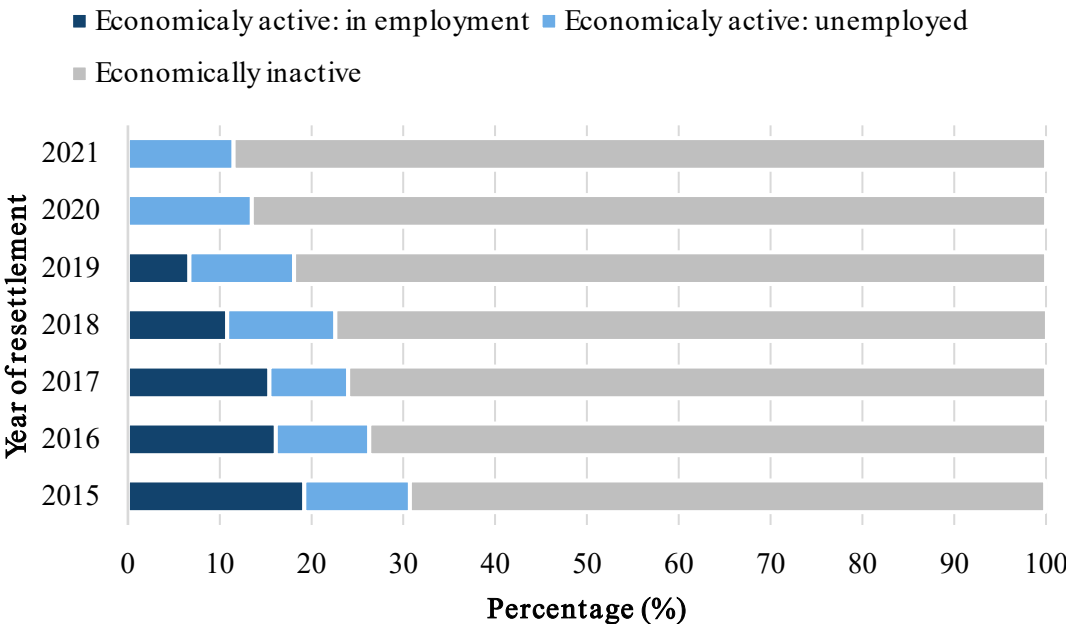
Refugees granted asylum, economic activity status (Census 2021, classification 4a) by year granted asylum, 2015 to 2021, England and Wales



Source: Home Office VPRS, VCRS, and asylum refugee data linked to Census 2021 from the Office for National Statistics.

Employment rates for resettled refugees are lower than for asylum refugees, but still increase over time

Refugees resettled under VPRS or VCRS, economic activity status (Census 2021, classification 4a) by year of resettlement, 2015 to 2021, England and Wales



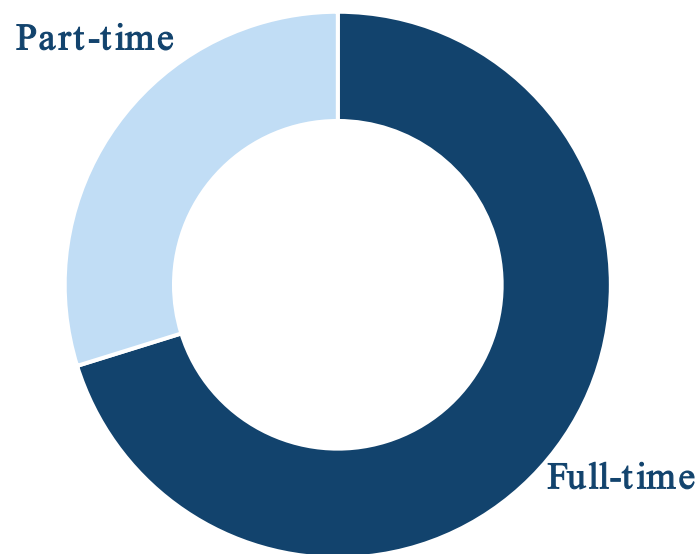
Source: Home Office VPRS, VCRS, and asylum refugee data linked to Census 2021 from the Office for National Statistics.

Refugees were more likely to be working part-time than the usual population of England and Wales

Part-time hours: (0 to 30 hours per week)

Full-time hours: (31 to 49 hours per week)

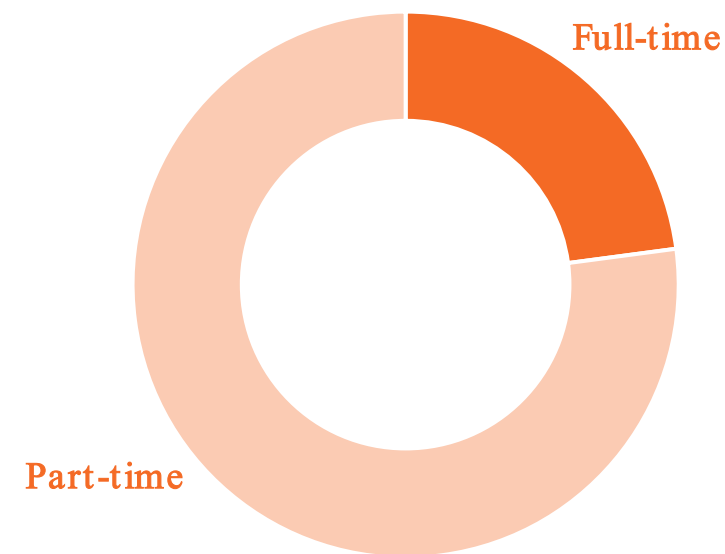
All RIO refugees compared with the usual resident population of England and Wales, hours worked per week (Census 2021), 2015 to 2021, England and Wales



**The usual population of
England and Wales**



Asylum route refugees



Resettled refugees

Source: Home Office VPRS, VCRS, and asylum refugee data linked to Census 2021 from the Office for National Statistics.

Refugees mostly work in elementary, skilled trades, and other occupations that require fewer qualifications or little prior experience

All RIO refugees, broad occupation category (Census 2021) by RIO cohort, 2015 to 2021, England and Wales



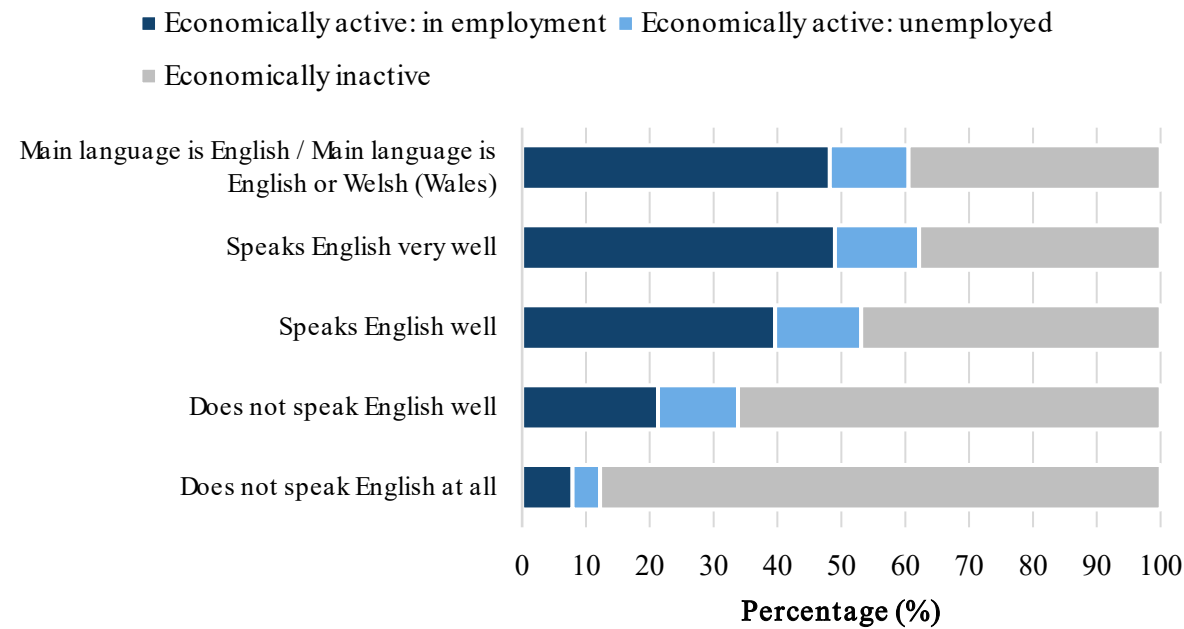
Source: Home Office VPRS, VCRS, and asylum refugee data linked to Census 2021 from the Office for National Statistics.

There is an association between language proficiency and rate of employment

Employment rates are higher amongst asylum route refugees who have higher self-reported levels of English proficiency.

Refugees granted asylum, economic activity status (Census 2021, classification 4a) by English proficiency (Census 2021) , 2015 to 2021, England and Wales

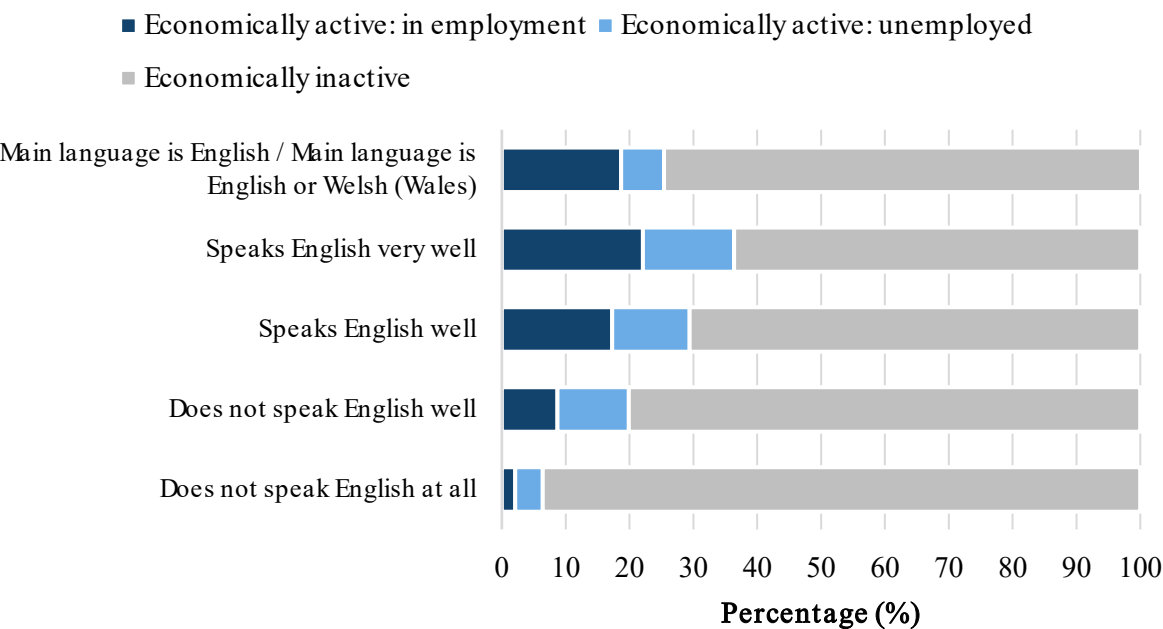
Asylum route refugees



Source: Home Office asylum refugee data linked to Census 2021 from the Office for National Statistics.

Refugees resettled under VPRS or VCRS, economic activity status (Census 2021, classification 4a) by English proficiency (Census 2021) , 2015 to 2021, England and Wales

Resettled refugees

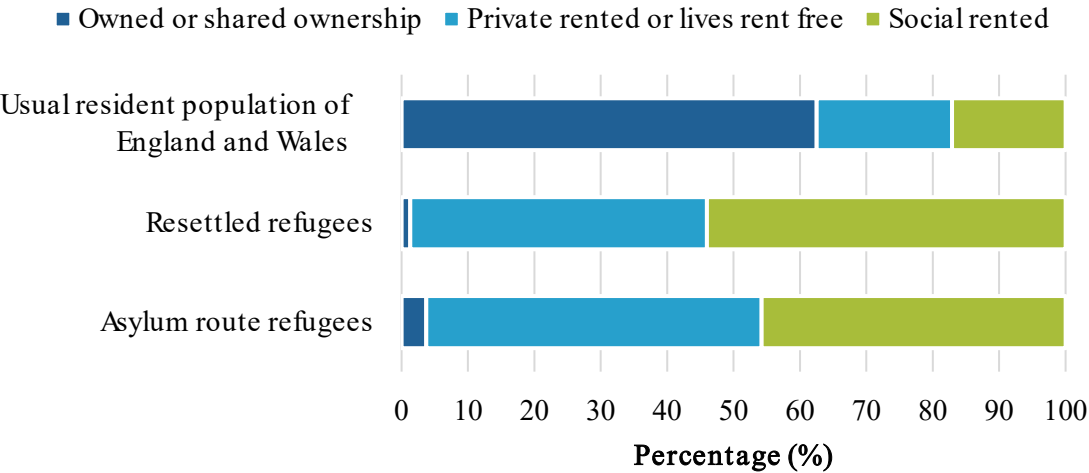


Source: Home Office VPRS and VCRS refugee data linked to Census 2021 from the Office for National Statistics.

We can also understand refugees' housing situations through linkage to Census 2021

The rate of home ownership is very low for refugees compared with the usual population of England and Wales

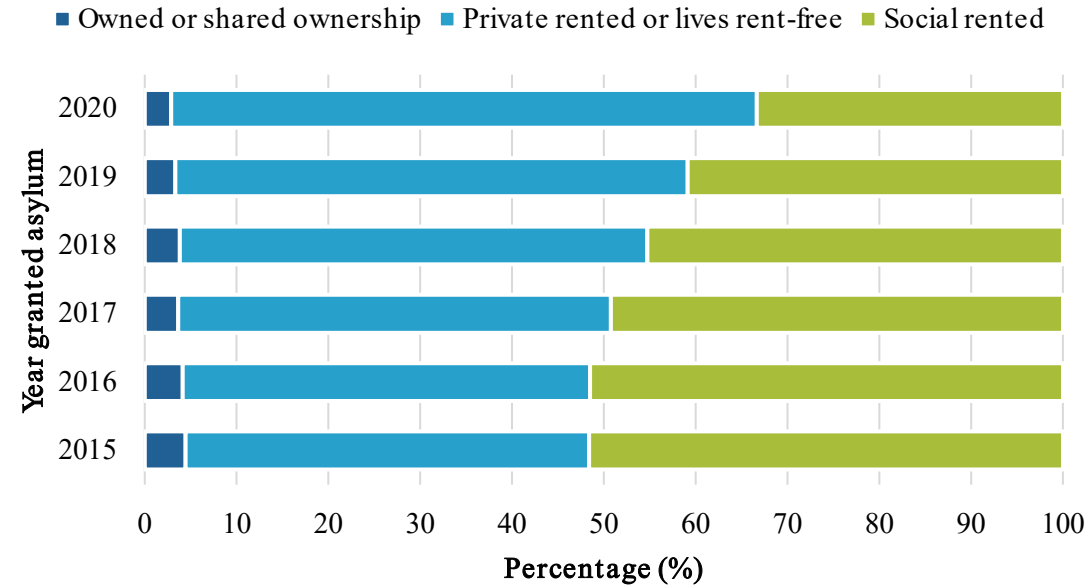
All RIO refugees households compared with usual resident population of England and Wales households, tenure (Census 2021, classification 4a), 2015 to 2021, England and Wales



Source: Home Office VPRS, VCRS, and asylum refugee data linked to Census 2021 from the Office for National Statistics.

The proportion of refugee who were living in social rented accommodation increased with time in the UK

Asylum route refugee households, tenure (Census 2021, classification 4a) by earliest year of arrival, 2015 to 2021, England and Wales

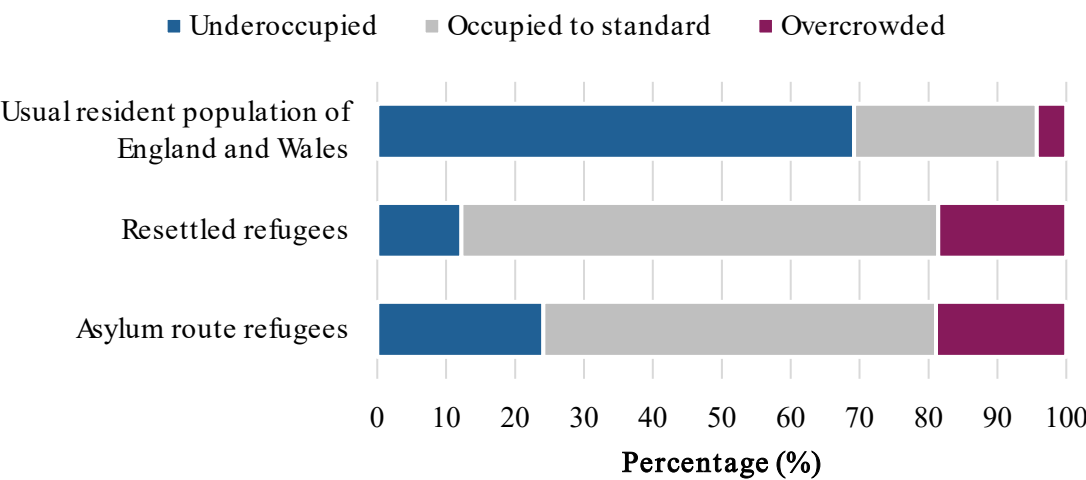


Source: Home Office asylum refugee data linked to Census 2021 from the Office for National Statistics.

Overcrowding was more likely to be an issue for refugees compared with the usual population of England and Wales

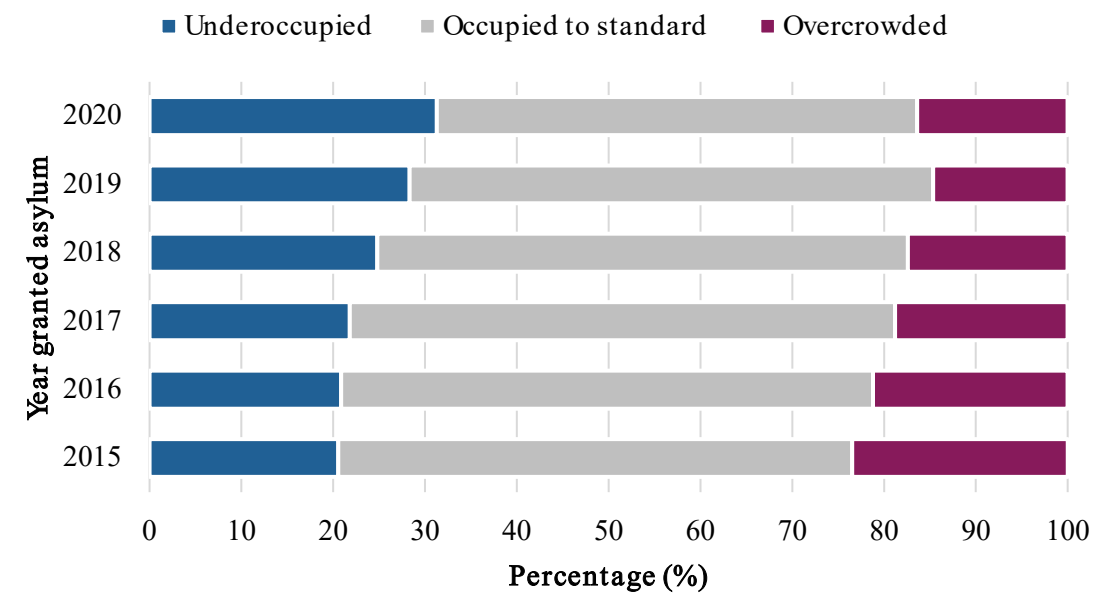
While most refugees lived in accommodation that was occupied to standard, they were more likely to be in overcrowded conditions

All RIO refugees households compared with usual resident population of England and Wales households, tenure (Census 2021, classification 4a), 2015 to 2021, England and Wales



The proportion of refugees living in overcrowded conditions was slightly larger for those who had been in the UK for longer

Asylum route refugee households, tenure (Census 2021, classification 4a) by earliest year of arrival, 2015 to 2021, England and Wales



Source: Home Office asylum refugee data linked to Census 2021 from the Office for National Statistics.

Linking Home Office refugee data to Census 2021 has allowed us to generate evidence on refugee outcomes we didn't have before

Weaknesses in using Census data ...

- Census gives us information at a point in time
- Becoming more out of date as time progresses
- Does not allow us to answer questions about the refugee journey since their arrival—only their status in 2021. Cannot track their status over time
- The Census, being a household survey, does not tell us anything about homelessness

... but still very useful!

- Allows us to make more accurate assumptions about the employment and housing status of refugees to be fed into economic modelling
- Gives us a baseline against which to gauge the effect of future policy interventions
- Allows us to delivery results by small local geographies

We have ambitious plans for RIO including further linkages and opening up the dataset

Linkages to more admin datasets

- Education data
- Health data
- Homelessness data
- Crime data

Opening up the dataset

The RIO dataset is held in the ONS Secure Research Service (SRS)

We intend to **open the RIO dataset to accredited researchers both across government and beyond** via the SRS so they can perform their own analysis.

Details of how to apply to access the dataset will be available later this year.



Home Office



Office for
National Statistics

We welcome questions and feedback on RIO:

ONS.RIO.Cohort.Study@ons.gov.uk

Further information on the data linkage methodology and data presented here can be found on the ONS website:

1. [Refugee Integration Outcomes \(RIO\) data linkage pilot](#)
2. [Early integration outcomes for refugees resettled in England and Wales: 2015 to 2021](#)
3. [Refugee integration outcomes data-linkage pilot: Census 2021 linkage methodology update](#)

