

# Importing Inequality:

## Immigration and the Top 1 percent

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# Motivation

- Top incomes play a key role in:
  - Entrepreneurship and innovation  
Gabaix et al. (2016); Jones and Kim (2018); Aghion et al. (2019); Bell et al. (2019)
  - Growth  
Lansing and Markiewicz (2018); Jones (2019)
  - Aggregate demand and savings  
Auclert and Rognlie (2017, 2018); Straub (2019)
  - Response to taxation  
Roine et al. (2009); Aoki and Nirei (2017); Rubolino and Waldenström (2020)
- Recent work has studied the characteristics of top earners  
Bell and Van Reenen (2014); Piketty et al. (2018); Smith et al. (2019); Advani and Summers (2020)
- But unable to distinguish between natives and migrants.

# Motivation

- High skilled migrants contribute to innovation, entrepreneurship, and growth.  
Kerr et al. (2016, 2017)
- Threat of migration affects top incomes across countries.  
Saez and Veall (2005); Atkinson and Leigh (2008)
- Migrants could alter the *composition* of individuals at the top.
- Little evidence on the effects of high-skilled migration on inequality in receiving countries.

# Research Questions

- Two empirical research questions:
  1. To what extent did migrants alter the composition of individuals at the top?
  2. How much did foreigners account for the increase in income inequality in recent decades?

# This Paper

- We combine data on the universe of individual within the Top 1%
- And a novel strategy to identify migrants in tax records
- We provide three new empirical results:
  1. Foreigners are **very prevalent** at the top.
  2. **Earnings** have pushed migrants to the top.
  3. Migrants account for **85 percent** of the increase in the top 1% share since 1997.

# This Paper

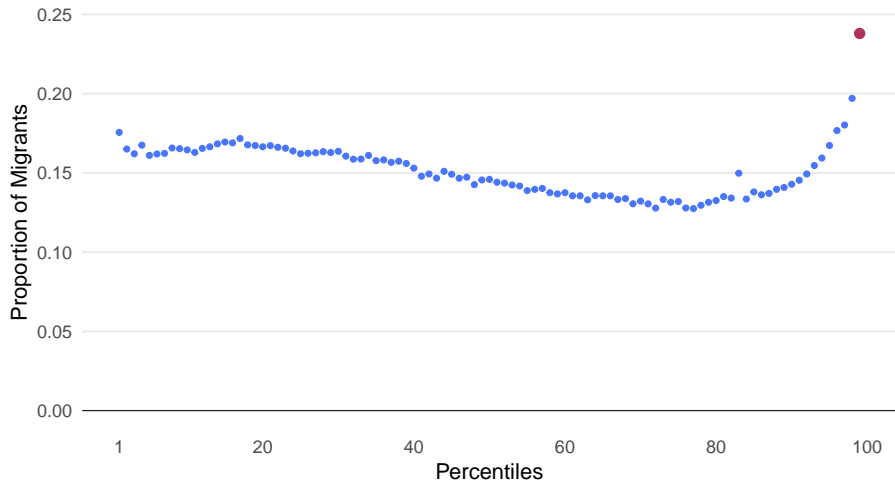
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# Foreigners Are Very Prevalent at the Top



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# Data

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- The universe of individuals within top 1% from 1997 to 2018 in the UK.
  - Tax returns and payroll records
- We measure pre-tax fiscal income.
  - Two main categories: earned and investment income
- Standard control totals for income and population.

# Measuring Migrants I

- **Definition:** A migrant is an individual who migrated to the UK after the age of 18.
- We exploit the structure of the National Insurance Number (NINO)

$$\underbrace{AB}_{\text{prefix}} - 123456 - C$$

- The prefix corresponds with a date range when NINO was assigned.
- We use archival records to link NINO prefix to year of assignment.
- Covering all years since National Insurance was introduced in 1947.

# From UK National Archives

## 2. Insurance number

The distribution is based on a main insurance number of two letters and six digits, example, AA123456, divided in significance as follows:-

<u>AA 1 2 3 4 5 6</u>					
Letter sequence using 18 letters of the alphabet with 324 combinations.	Serial number within the letter sequence range.	Week of the year number (for staggered issue of contribution card) in two ranges 01-50 and 51-00.	Group indicator (see below).		

## 3. Binders

The distribution is based on a Register of 30 million record sheets housed in 100,000 binders each containing 300 sheets but the system as explained below is capable of expansion or contraction without disturbing the lay-out.

[Amdt 56]

Registration

CP 186-187

(2) If the mariner quotes an address which is not in any of the countries in (1) and he wishes to apply, as a non-domiciled mariner, for a non-labile ruling, he should be given form RD 79 to complete or, if such a form is not available he should be told to apply for one to a Mercantile Marine Office. Form RD 79 and the completed form CF 8 should be sent to Marine Section, Newcastle Records to decide the domicile question (CP 4053). If the mariner is found to be liable, arrangements for his registration will be made by Marine Section. If the mariner has been sent to obtain a NI number by a Mercantile Marine Superintendent, he should be told to explain to the Superintendent that he will not be given a number unless, and until, a liable ruling has been given.

(3) If the mariner does not intend applying for a "non-labile" ruling, normal registration action should be taken if there is sufficient time before the seaman is due to sail. If there is not sufficient time to allow the form RD 3 to be received by the seaman before he sails, action should be taken as in CP 166 and on receipt of form RD 16 from Newcastle Records, the employer should be notified of the seaman's NI number and the papers PA.

(4) Where a mariner who has arrived from abroad applies for a NI number because he has taken up shore employment normal registration action as in CP 154 *et seq* should be taken.

(5) Marine superintendents have been advised by the Department of Trade (Memorandum No S 50/75) that due to delays in the allocation of NI numbers, in exceptional circumstances they may issue a British seaman's card without the NI number being entered, eg if the ship would be delayed or the seaman would lose his employment or earnings because he did not have a British seaman's card.

### Applicants who have arrived from abroad

187. Where a person applying for a NI number has arrived from abroad refer to CA 1701 *et seq* and take any appropriate action. Where there is no liability for contributions as in CA 1703, registration action should not be taken until the 52 weeks have elapsed. If application is made at the end of the period of non-liability action should be taken as in CP 167(3) and CP 166 and on receipt of form RD 16 from Newcastle Records form MF 15 noted "Waiver of contributions, CA 1703" should be issued. If evidence of membership of a foreign social security scheme is produced and the country concerned is not a Member State of the EEC or one that has an agreement on social security with the UK, the evidence should be returned to the applicant. Where such evidence is a contribution card the applicant should be advised to return this to the issuing authority.

## Measuring Migrants II

- All UK children are automatically assigned a NINO at age 16.
- All migrants must apply via a separate adult registration process.
- To identify migrants, we compare year of assignment with year of birth.
- Anyone who received a NINO at age 18 or older is a migrant.

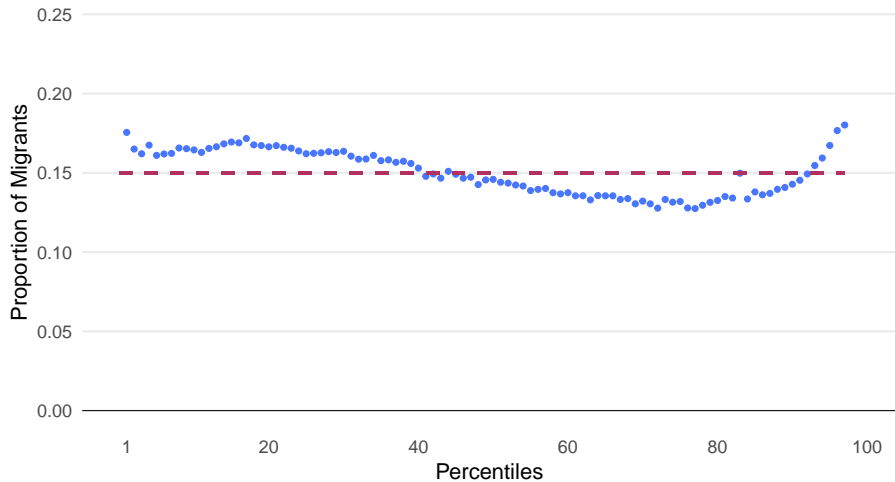


# Results

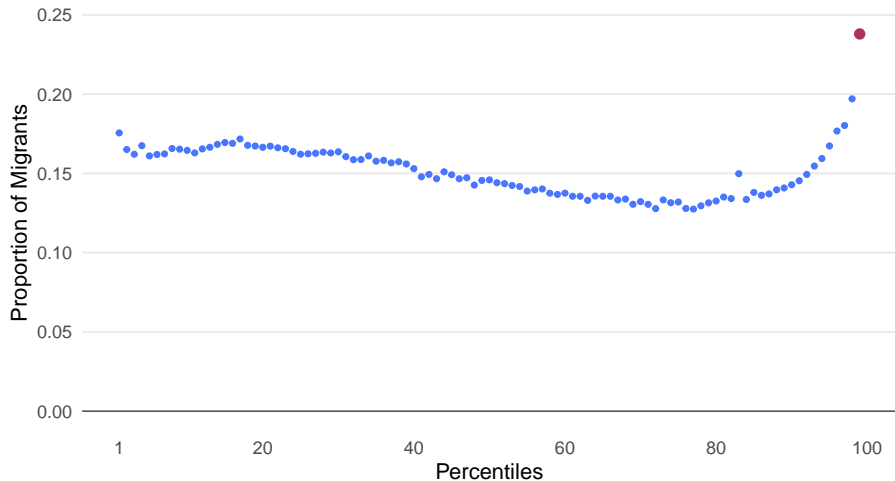
# Summary of Results

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# Foreigners are very Prevalent at the Top

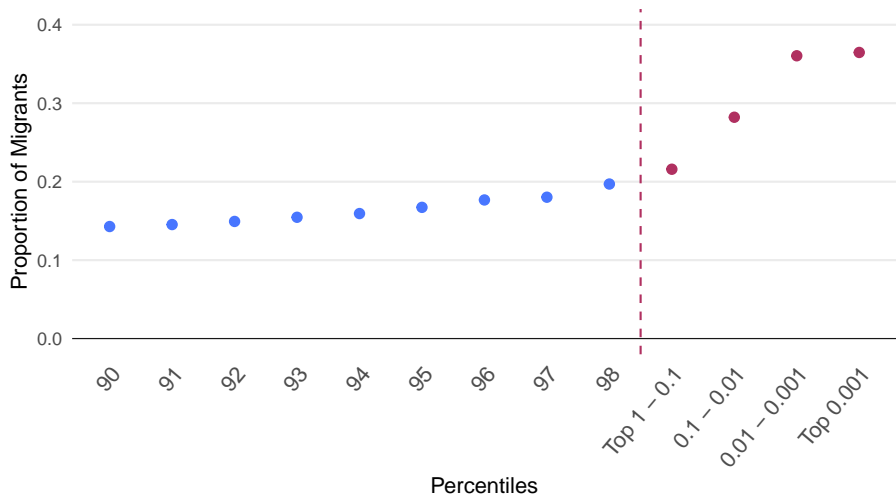


# Foreigners are very Prevalent at the Top



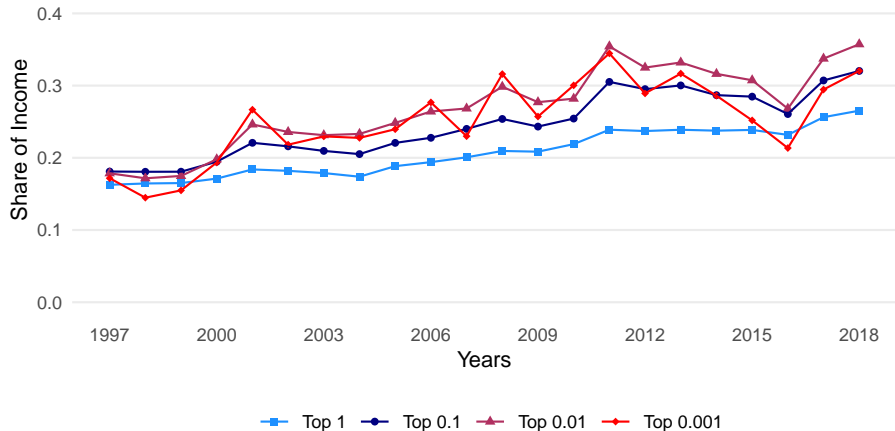
1.4× more foreigners in the top 1% than in the bottom 10%

## Zooming in at the Top



2.2× more foreigners in the top 0.01% than in the bottom 10%

# Migrants Receive More Top Share Income



Migrants' share of top 1% income increased by more than 50 percent.

# Summary of Results

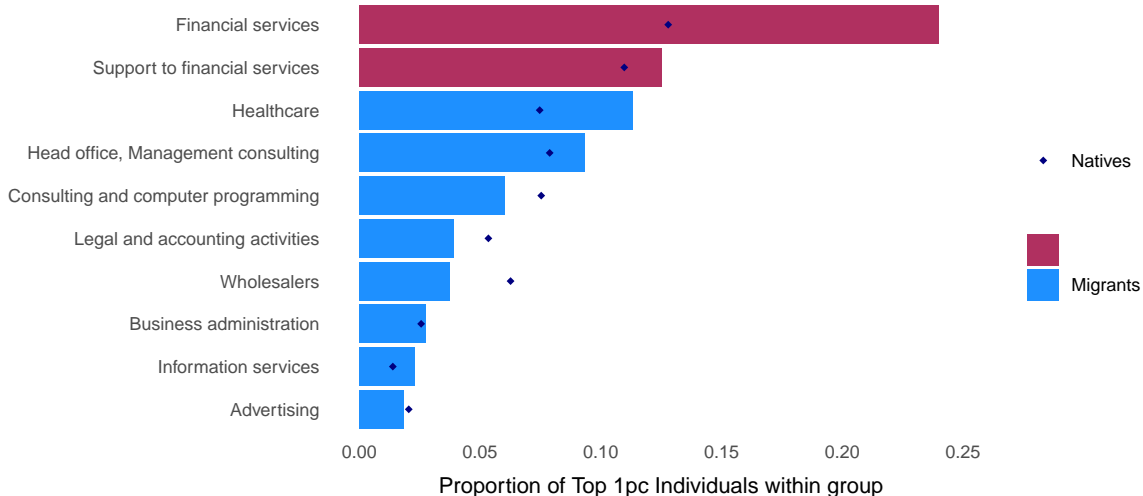
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# Earnings are Pushing Migrants to the Top



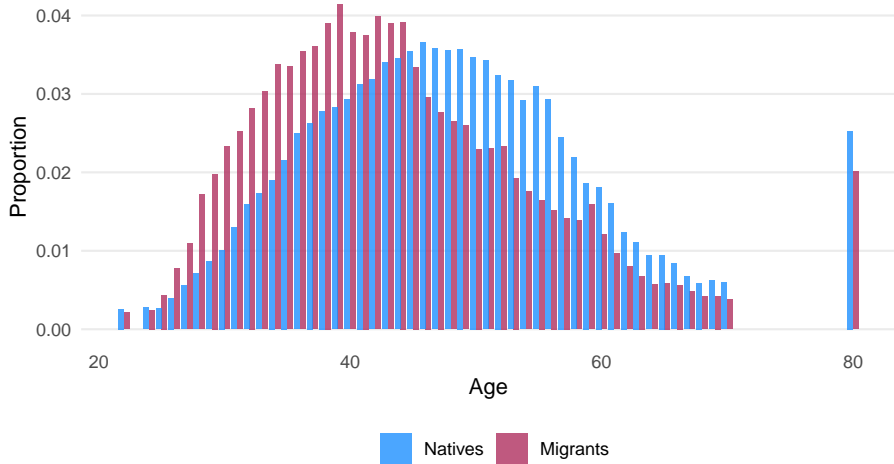


# Top Migrants Predominantly Work in Finance



More than 30% of top 1% migrants work in finance.

# Migrants Reach the Top at a Younger Age



Average age for migrants joining the Top 1pc is 44, while 48 for natives

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# Top Share Growth Accounting

- Decompose the top share into a **native** and **migrant** share:

$$S_t = S_t^n + S_t^m$$

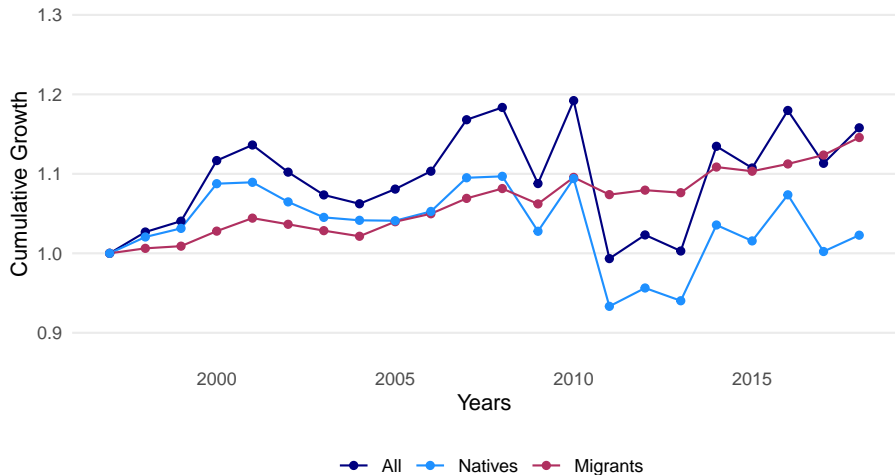
- The growth rate:

$$\frac{S_{t+N} - S_t}{S_t} = \frac{S_{t+N}^n - S_t^n}{S_t} + \frac{S_{t+N}^m - S_t^m}{S_t}$$

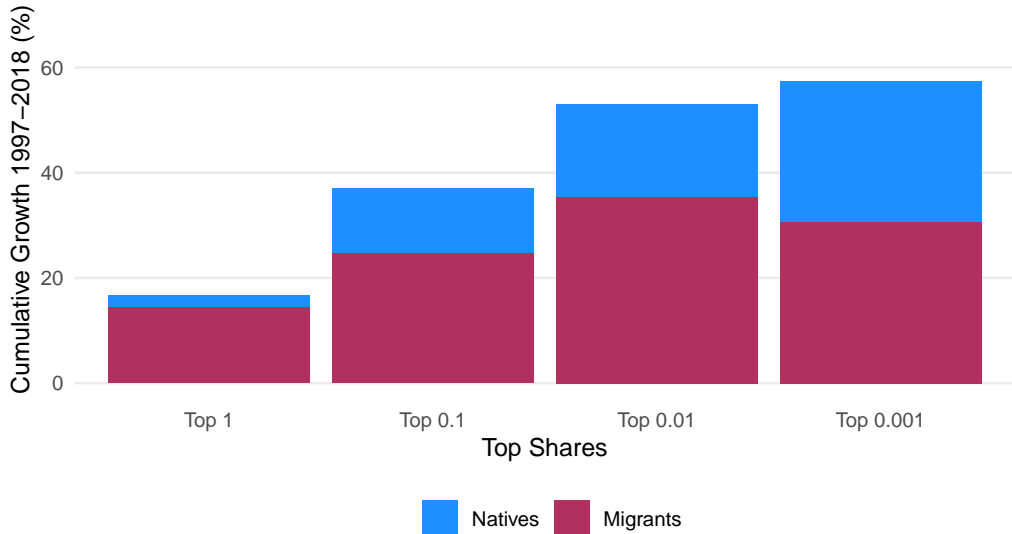
# Migrants Account for Most Growth

- Top 1 share inched up by 2 percentage points to 14.3%, since 1997
- A 15 percent increase
- Migrants account for around **85 percent** of it.
- Migrants account for 2/3 of the increase in Top 0.1 and 0.01 shares.

# Migrants' Contribution to Top 1 Growth Steadily Increased



# Top Share Growth Decomposition



# Discussion

## Summary

- Foreigners are very prevalent at the top.
- Earnings have pushed migrants to the top.
- Migrants account for 85 percent of the increase in the top 1% share since 1997.

## Open Questions

- What are the factors that influence foreigners' decision to migrate?
- What are the consequences on local and national economy of high income migrants?

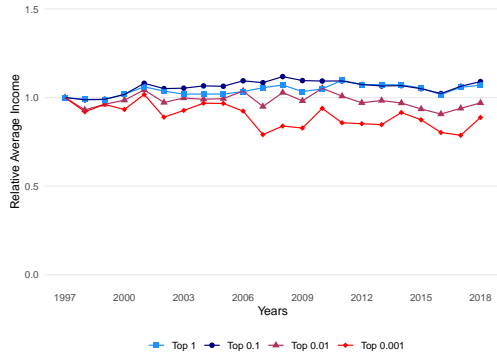
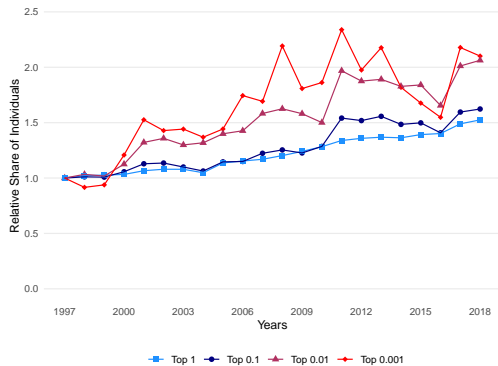


# Thank you!

**[lorenzopessina.com](http://lorenzopessina.com)**

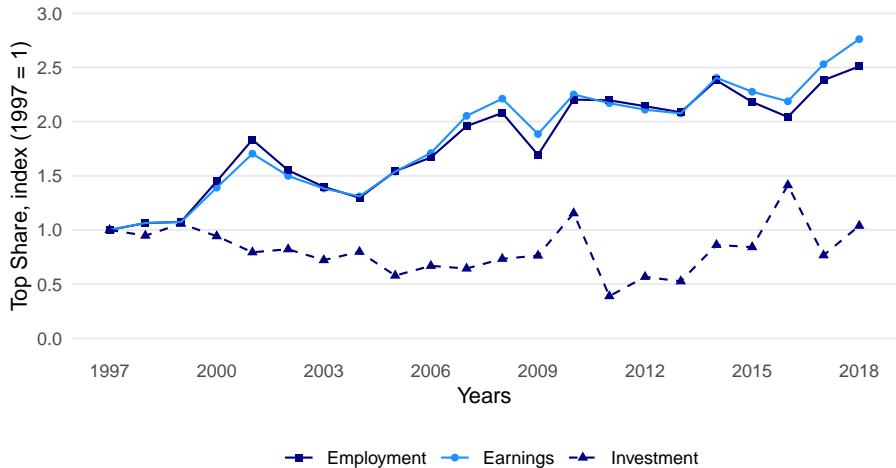
# Backup Slides

# Migrants Have Become More Prevalent

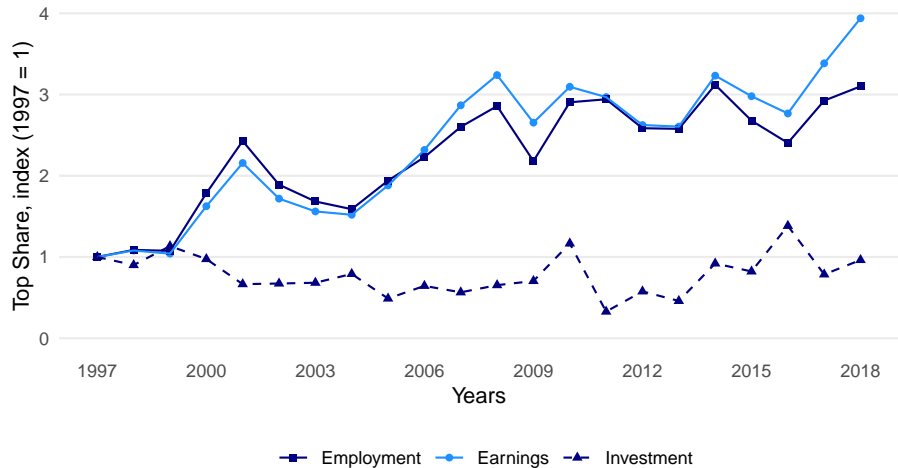


- The trend is driven by an increase in number of migrants at the top.
- Average income of migrants remained stable, relative to natives.

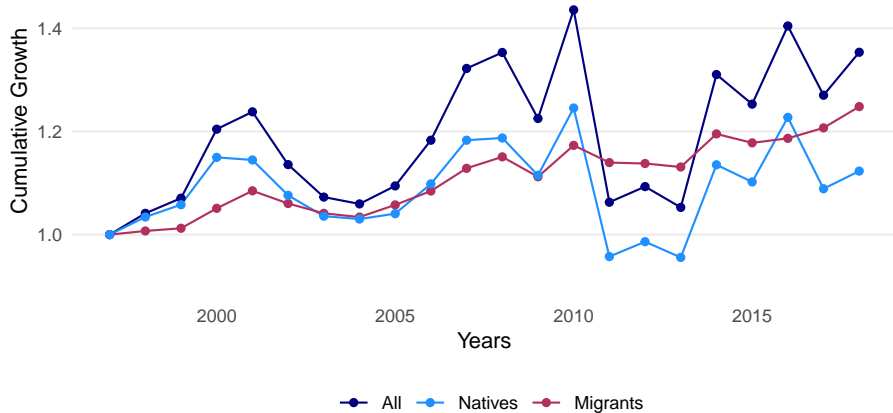
# Earnings vs. Investment: Top 0.1



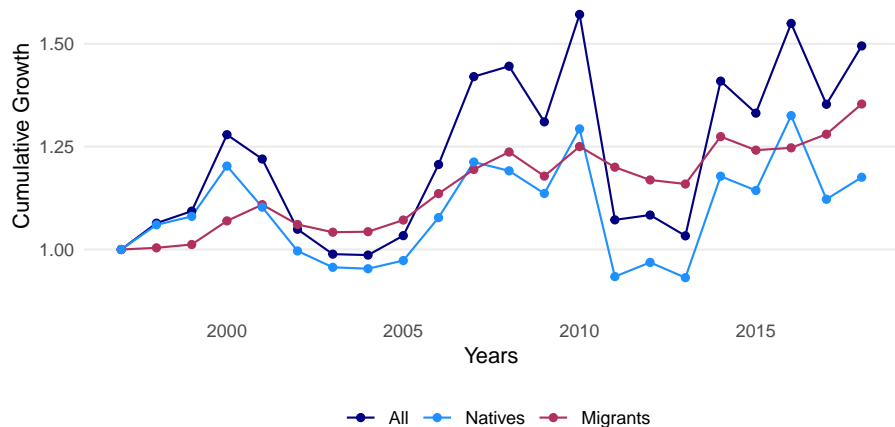
# Earnings vs. Investment: Top 0.01



# Growth Contribution: Top 0.1



# Growth Contribution: Top 0.01



# Growth Contribution: Top 0.001

