

# Never mind the young!

## Occupational replacement demand and demographic change

Labour market tightness and needs for skills

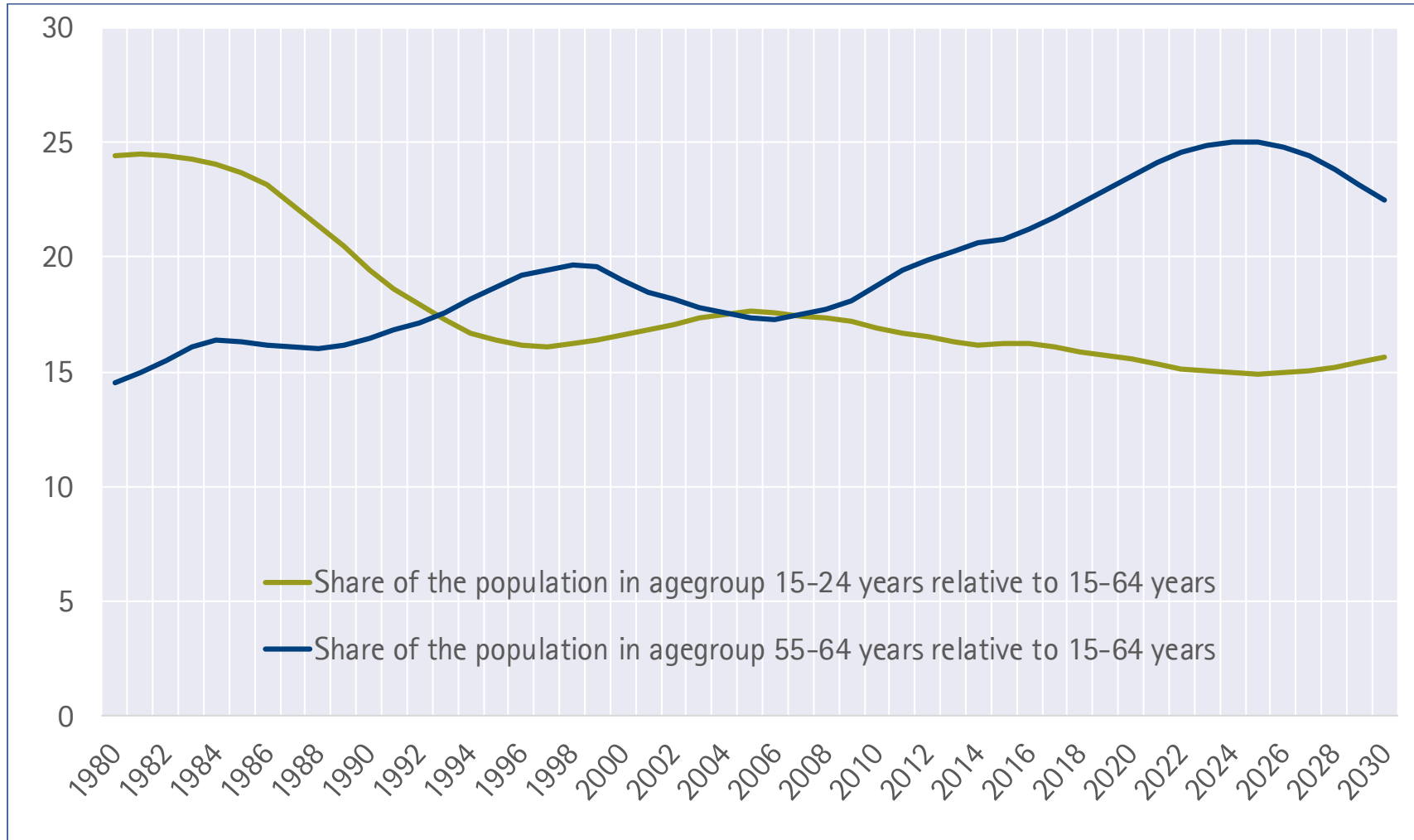
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Alfred Garloff  
Rüdiger Wapler

## Observation 1: Demography

Labor market entry decreases, while retirement increases

# Relative (projected) sizes of the population shares of people aged 15–24 and 55 – 64, Germany

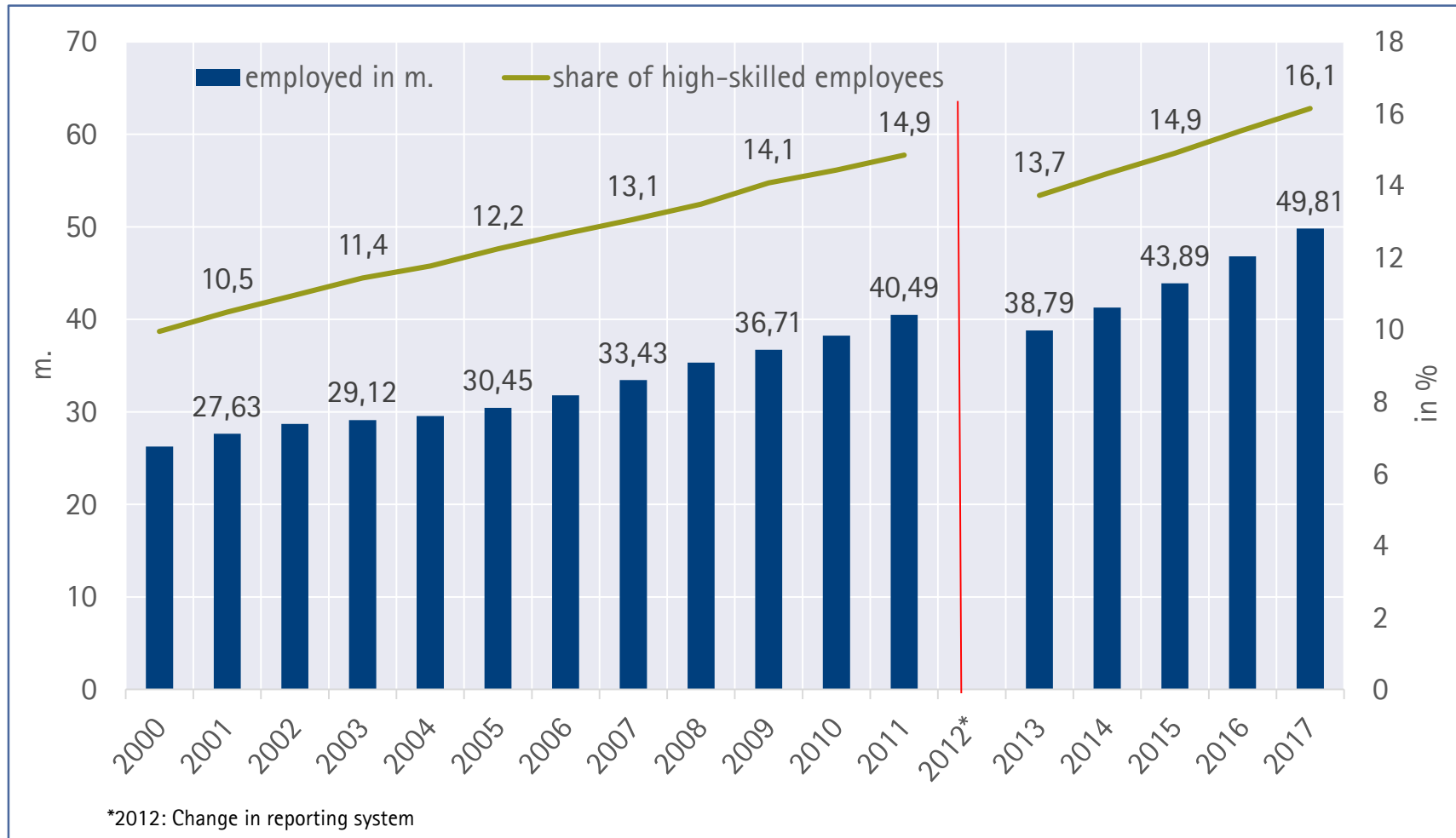


Source: Federal Bureau of Statistics, Data from 2015 onwards originate from the population forecast (13<sup>th</sup> coordinated population forecast (from 2015), variant 2-A).

## Observation 2: Labour market

Employment boom, especially of high skilled people, in particular occupations

# Employment and the share of high-skilled employees, 2000–2017, Germany



Source: Statistics of German Federal Employment Agency; own calculations.

What follows from these observations for future employment?

- At least one side of the labour market must react: either:
  - labour demand decreases (at given prices or with increasing prices),
  - OR
  - labour supply increases (immigration, participation) (at given prices or with increasing prices)
- However: **Labour shortages** only if for some reason markets cannot (fully) adapt to new equilibrium

- Public opinion: future decrease in labour supply leads to a higher “replacement demand”
  - Focus on how many employees (in an occupation) are close to retirement age and need to be “replaced” in near future



- Replacement demand across occupations: Is there a (strong) relationship between **retirement behaviour** and different **inflow** components?
  - Particularly: Do we have to worry about large **retiring cohorts** (within an occupation), because there are so few young labour market entrants?
  - How large is the „**demographic**“ component as compared to the others in occupational turnover?
  
- Results:
  - Weak (or no) relationship between retirement of old cohorts and inflow of young cohorts
  - Relationship between retirement and occupational changes or job accessions from non-employment much stronger
  - Demographic component is small

## Empirics

# Retiring cohorts – cause for concern?



- Freeman (2006) ideas:
  - if the young replace the old, you find many youngsters in occupation where there were previously many oldsters
  - „old“ occupations die out; i.e. we expect them to have lower employment growth rates
  
- We find ...

# Retiring cohorts – cause for concern?

Age group	Share of 55 – 64 year olds ten years earlier	
	Basic Model	Extended Model
15 – 24	-	-
25 – 34	-	+
35 – 44	-	+
45 – 54	+	+
Occupations with employment growth		
15 – 24	0	-
25 – 34	-	+
Occupations with employment decline		
15 – 24	-	0
25 – 34	-	0

0: Insignificant; -: negative significance; +: positive significance

Source: SIAB 75 – 14; own calculations.

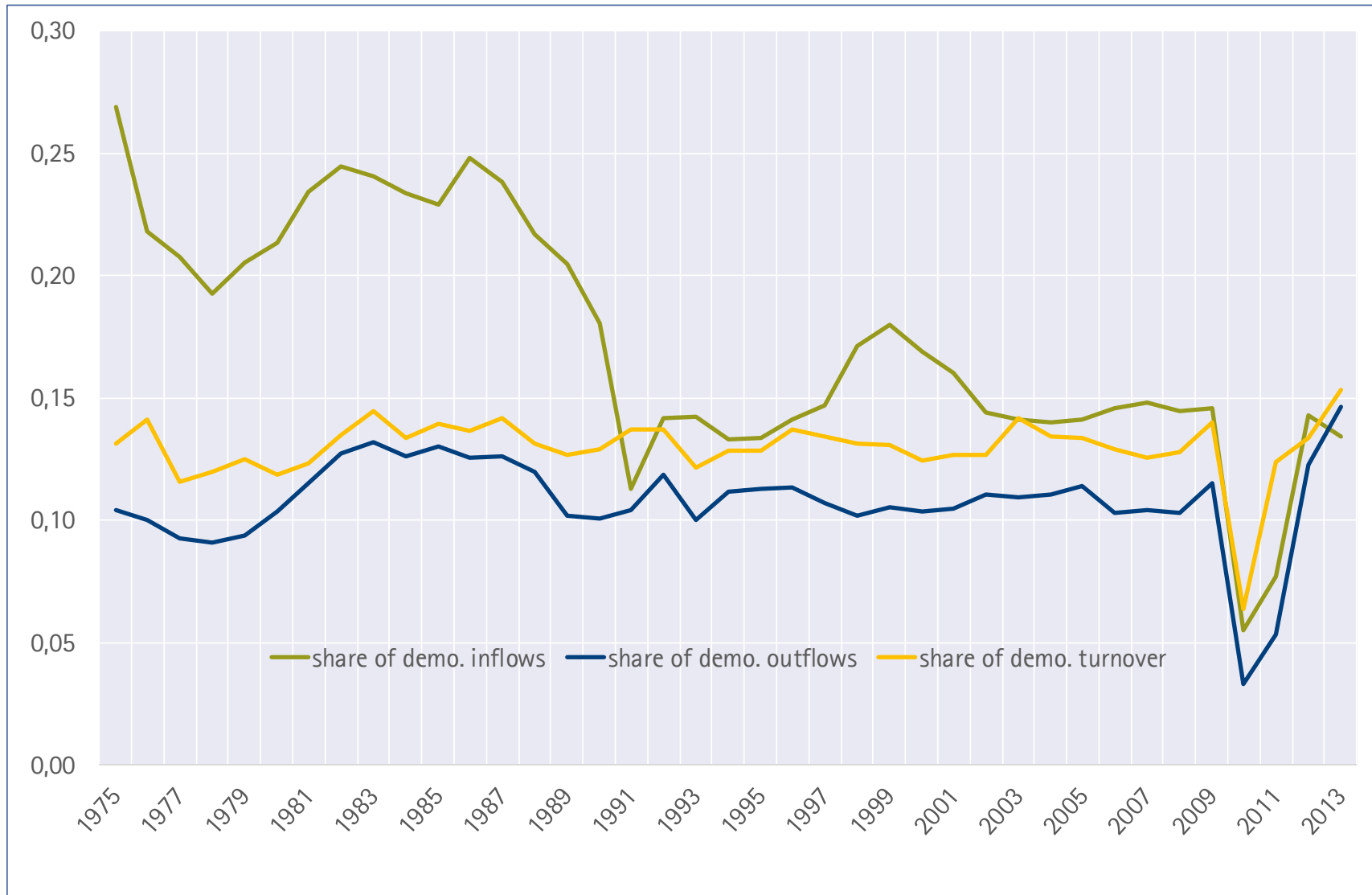
# Retiring cohorts – cause for concern?

Inflow shares of ...	Shares of ...	Effect
Job-beginners	... inflows from occup. change	+
	... inflows from non-employment	+
	... outflows to retirement	-
	... outflows to occup. change	+
	... outflows to non-employment	+
Occup. change	... inflows of job-beginners	+
Non-employment	... inflows of job-beginners	+

0: Insignificant; -: negative significance; +: positive significance

Source: SIAB 75 – 14; own calculations.

# Demographic Component



Source: SIAB 75-14, own calculations

## Conclusion

- Old occupations are neither growing faster nor slower than others
- No strong link between young and old in an occupation
- Occupational changes and job accessions from non-employment are more important for occupational replacement than job accession from the education system
- Size of the labour market entry cohort seems less relevant for occupational replacement on average
- Makes more sense to analyse the typical origin of inflows and outflows per occupation and use this as analytical device to analyse the potential effects of demographic change
- Effect of smaller entry cohorts is not likely to show stronger in occupations with a high share of old individuals