

# Combining register data to uncover social variables in Danish farming

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# 2 analyses in 2022



# Foreign labour in the Danish food sector



## Point of departure: Use of foreign labour in the food sector

- To what extent is foreign labour already used in the food sector, and how has the proportion of foreign workers developed in recent years?

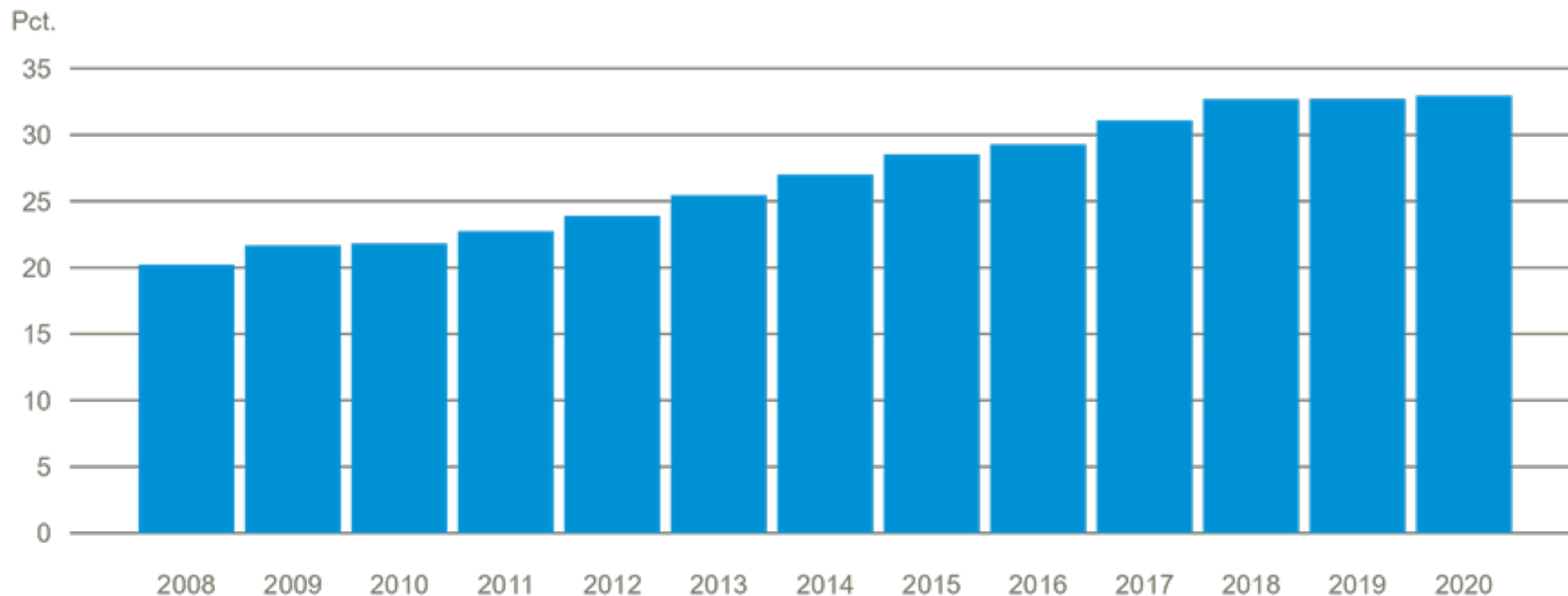
## Methodology: Linking citizenship with labour market accounts

- Defining the Food sector by **Danish Industrial Classification of All Economic Activities 2007 (NACE-codes)**
- Combining Food sector with **Labour market accounts (CVR)**
- Combining Labour market accounts with **Population statistics (CPR)**

## Analysis:

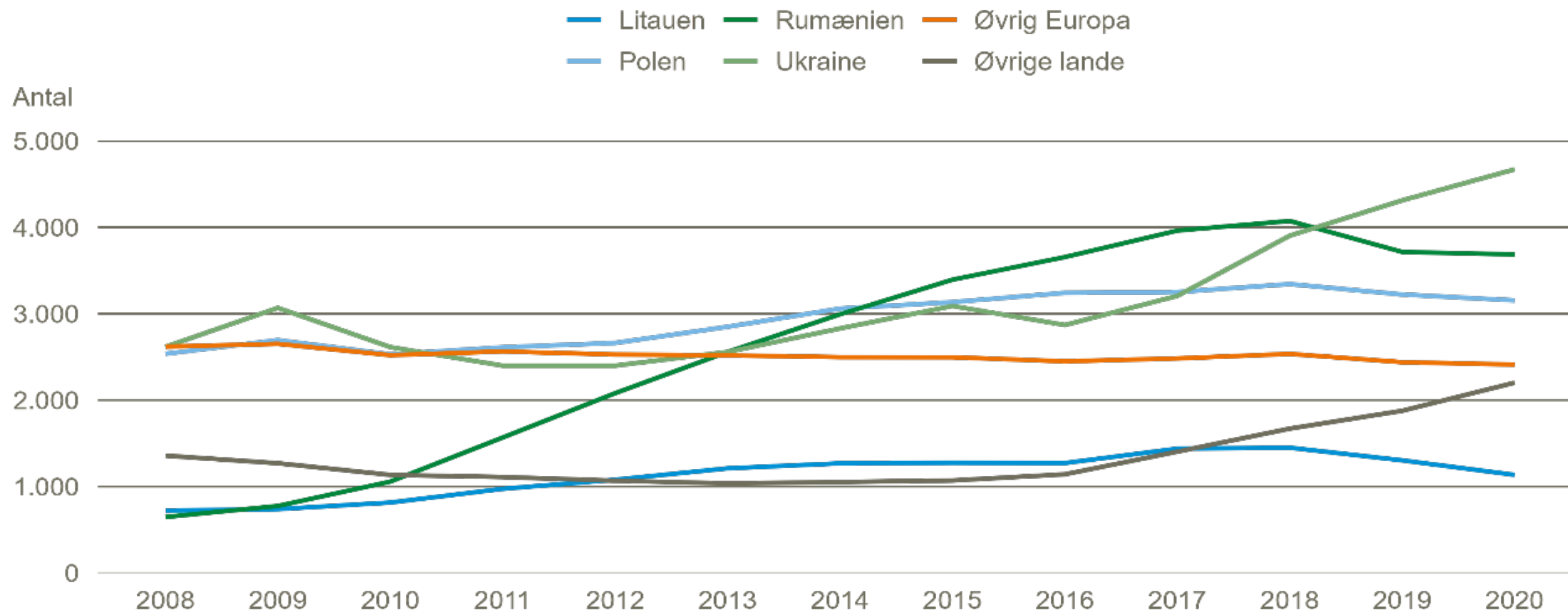
**“Half of the employees in Danish pig production in 2020 are foreigners - most are from Ukraine”**

**Fig. 1: Share of employees with foreign citizenship in the food sector**



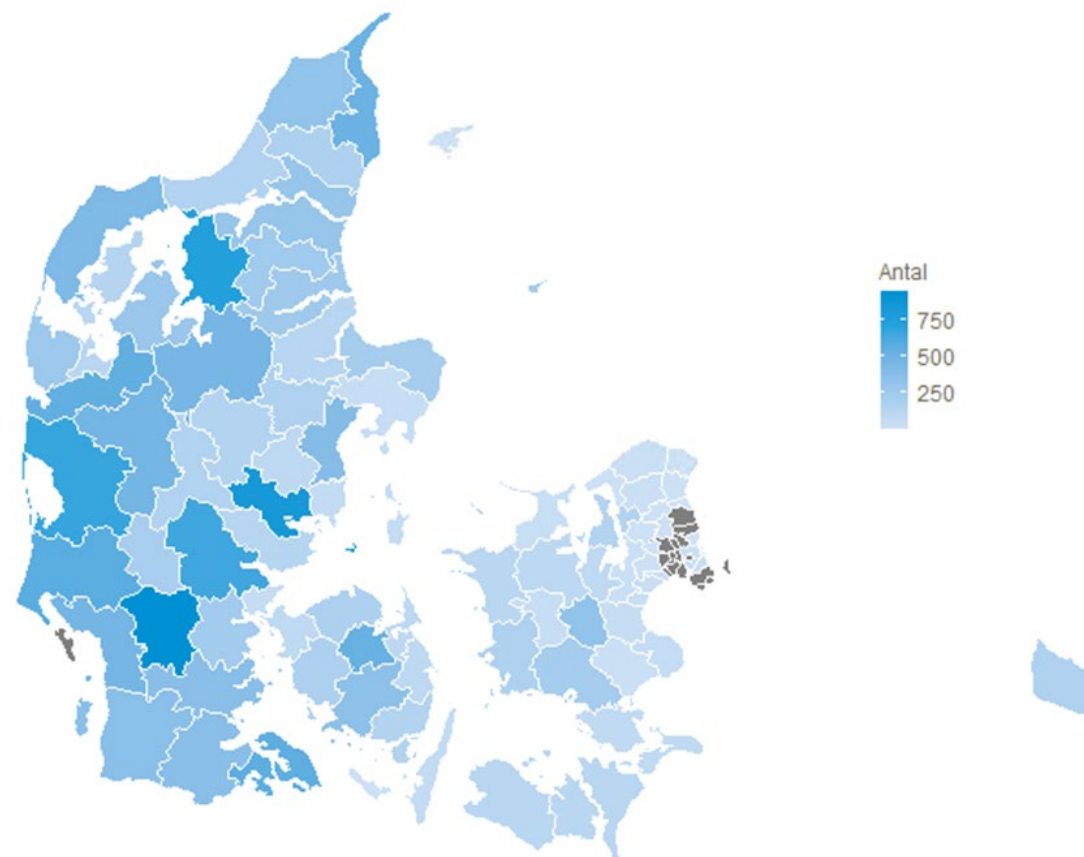
Note: Employed in agriculture, horticulture, fishing and aquaculture as well as the closest related industries, slaughterhouses, dairies and fish processing. Converted to full-time employees.

**Fig. 2: Number of employed wage earners with foreign citizenship in the food sector by top 4 countries and country groups**



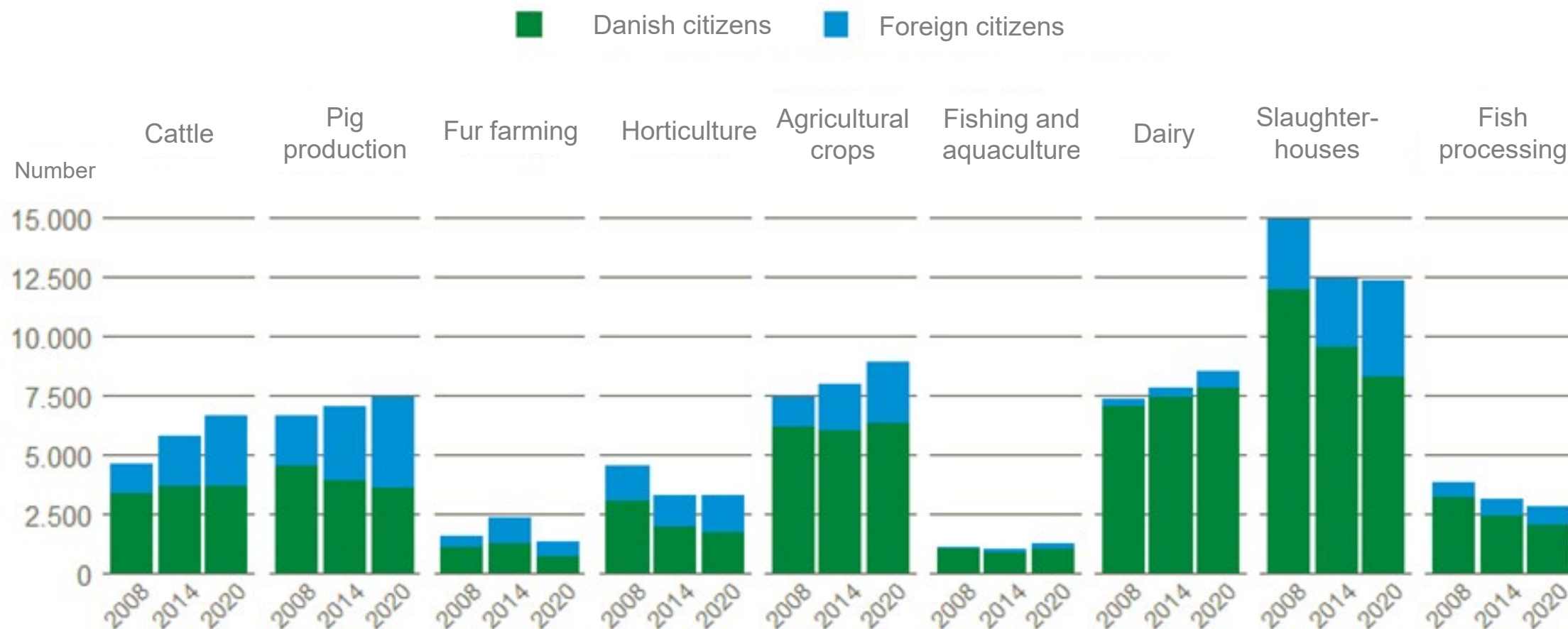
Note: Converted to full-time employees. Persons with unknown citizenship and stateless persons are not included in the figure. These amount to between 20-55 full-time employees per year, corresponding to between 0.04 and 0.10 per cent. of all full-time employees in the food sector in the various years. The countries in Europe are defined based on the country classification from Statistics Denmark.

**Fig. 3: Number of employed wage earners with foreign citizenship in the food sector, grouped by workplace municipalities, 2020**



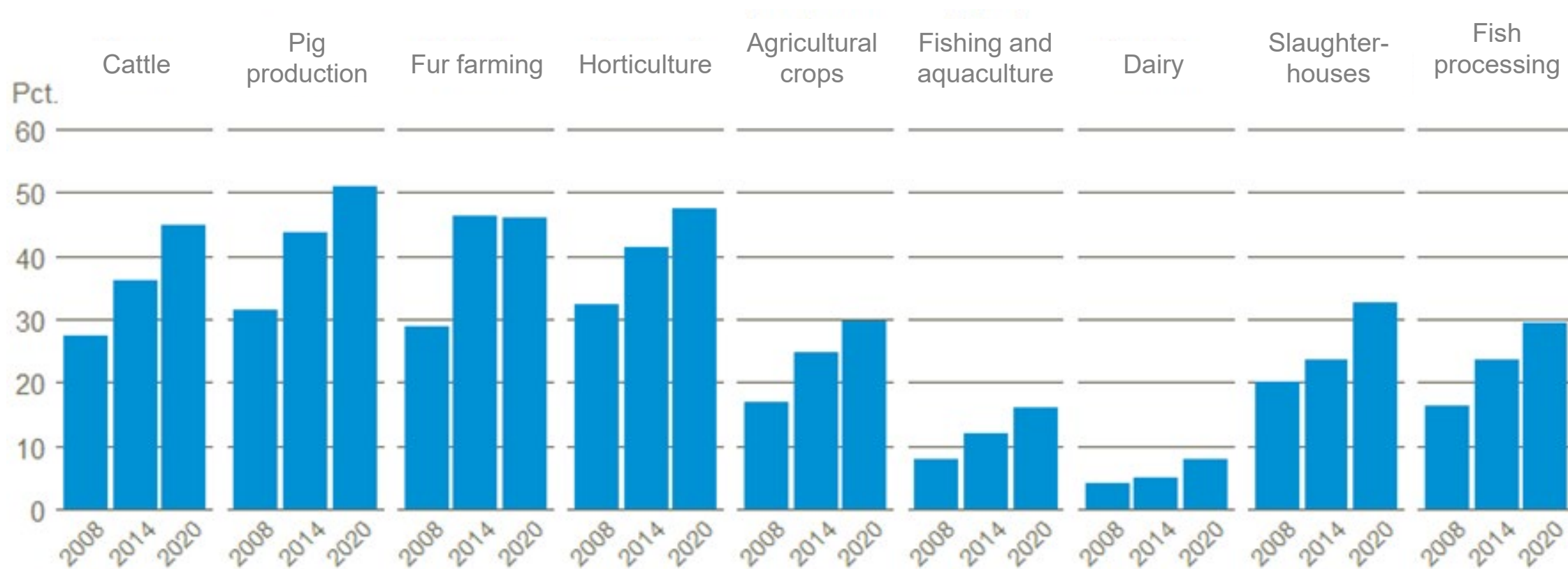
Note: Converted to full-time employees. The grey color means that there are no or very few observations.

**Fig. 4: Number of wage earners with foreign citizenship by industry**



Note: Converted to full-time employees.

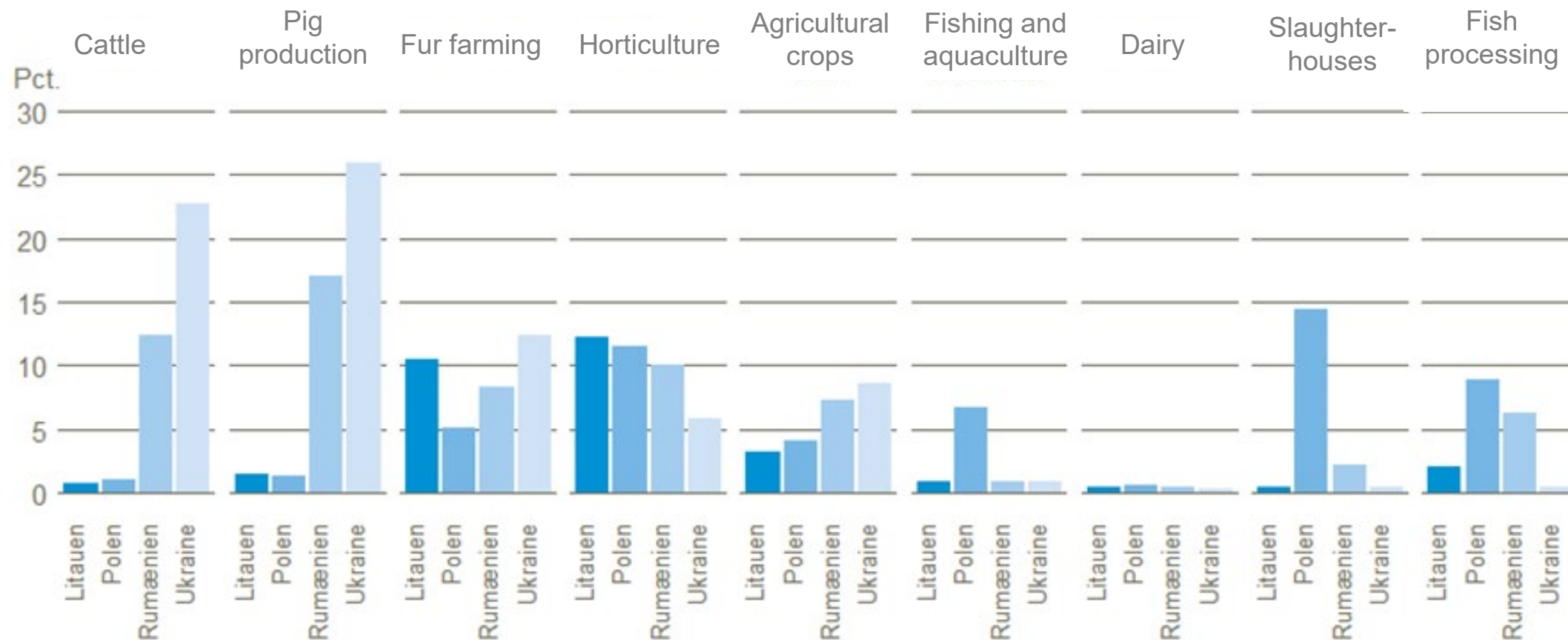
**Fig. 5: Share of wage earners with foreign citizenship by industry**



Note: Converted to full-time employees.

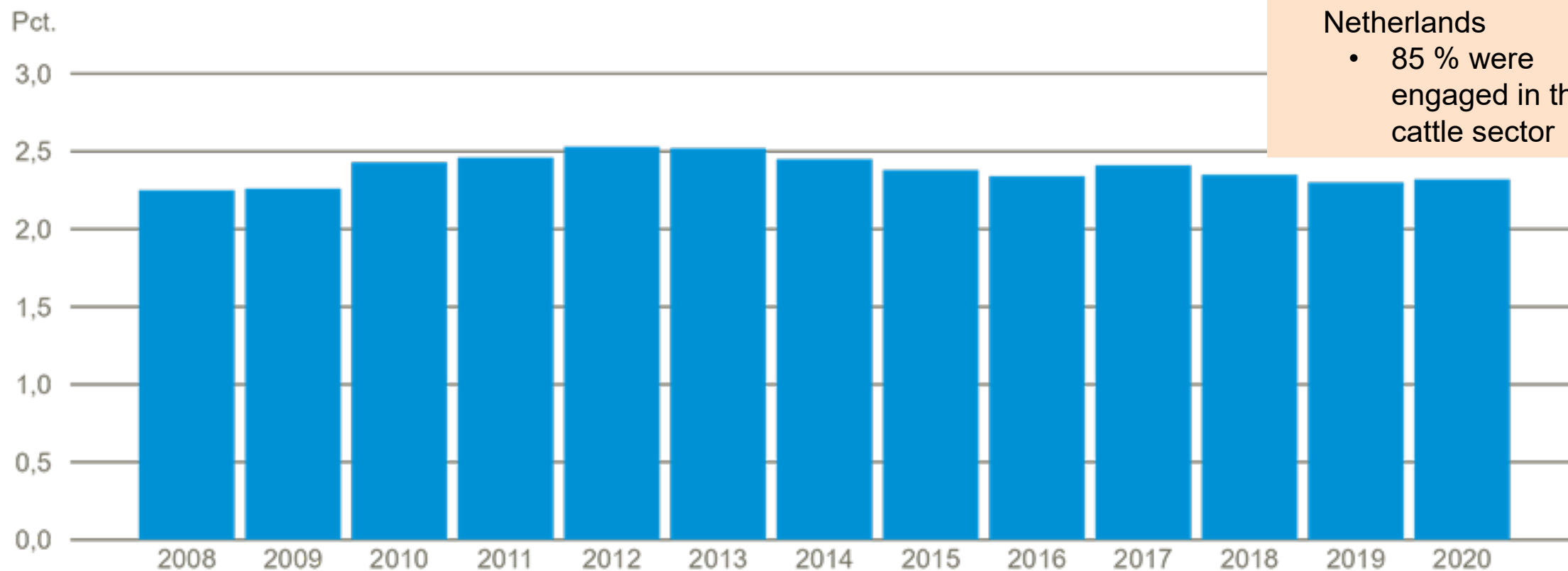


**Fig. 6: Share of wage earners with foreign citizenship by industry and selected countries, 2020**



Note: Converted to full-time employees.

**Fig. 7: Share of self-employed with foreign citizenship in the food sector**



- 2020: 73 % from the Netherlands
  - 85 % were engaged in the cattle sector

Note: Converted to full-time employees, including working spouses.

# Portrait of Danish farmers



## Point of departure: Who are the Danish farmers?

We can say a lot about agricultural activities and structure from our accounting statistics, but less about who the farmers are.

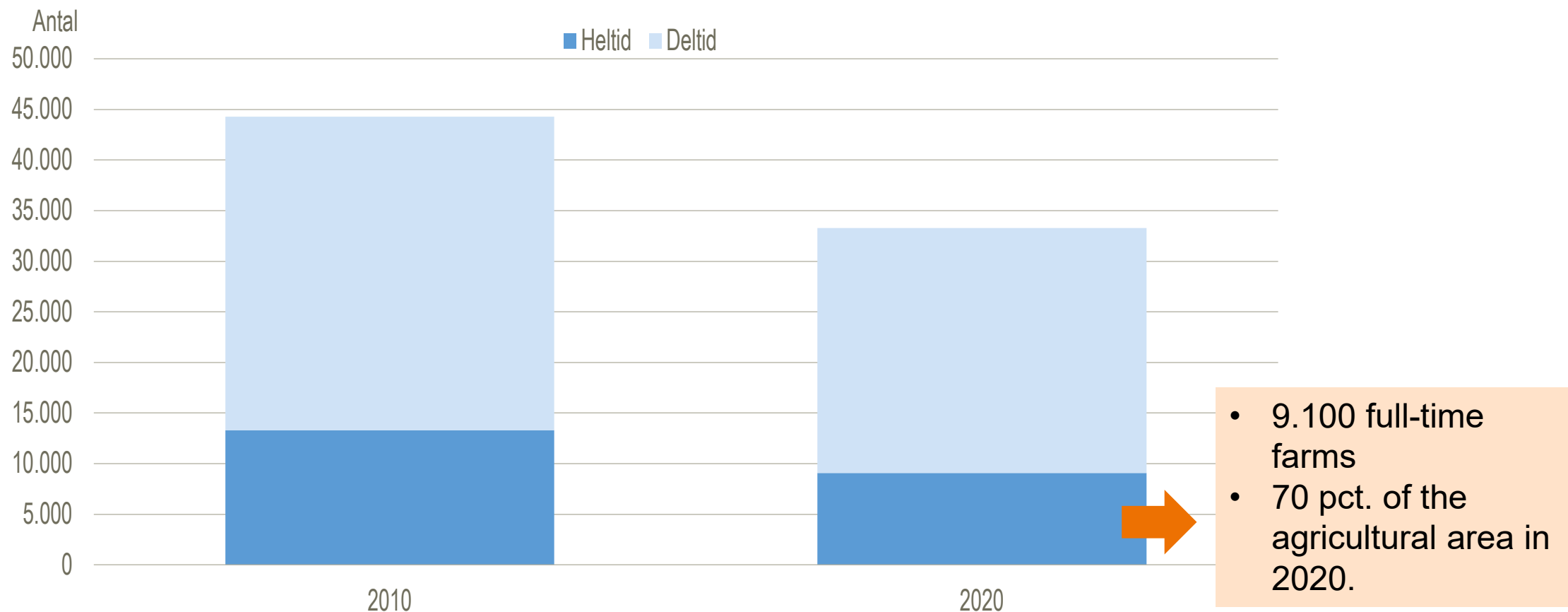
## Methodology: Linking censuses from 2010 and 2020 with register data

- EU total census every 10 years, 2010 and 2020: Farm Structure Survey  
Arbejdsstednummer – [Workplace number](#)
- Register data from Statistics Denmark
  - Erhvervsstatistisk Register (ESR) – [The Statistical Business Register](#)
  - Den registerbaserede arbejdsstyrkestatistik (RAS) - [The Register-based Labour Force Statistics](#)
  - Befolkningsstatistikken (BEF) - [Population Statistics](#)
  - Fertilitetsdatabasen (FTBARN) - [The Fertility Database](#)
  - Uddannelsesregistret (UDDA) - [The Education Register](#)
  - Formue- og gældsregistret (FORMGELD) - [The Asset and Debt Register](#)
  - Familieindkomstregistret (FAIK) - [The Family Income Register](#)

Delineation: Full-time farms excluding companies

## Delineation

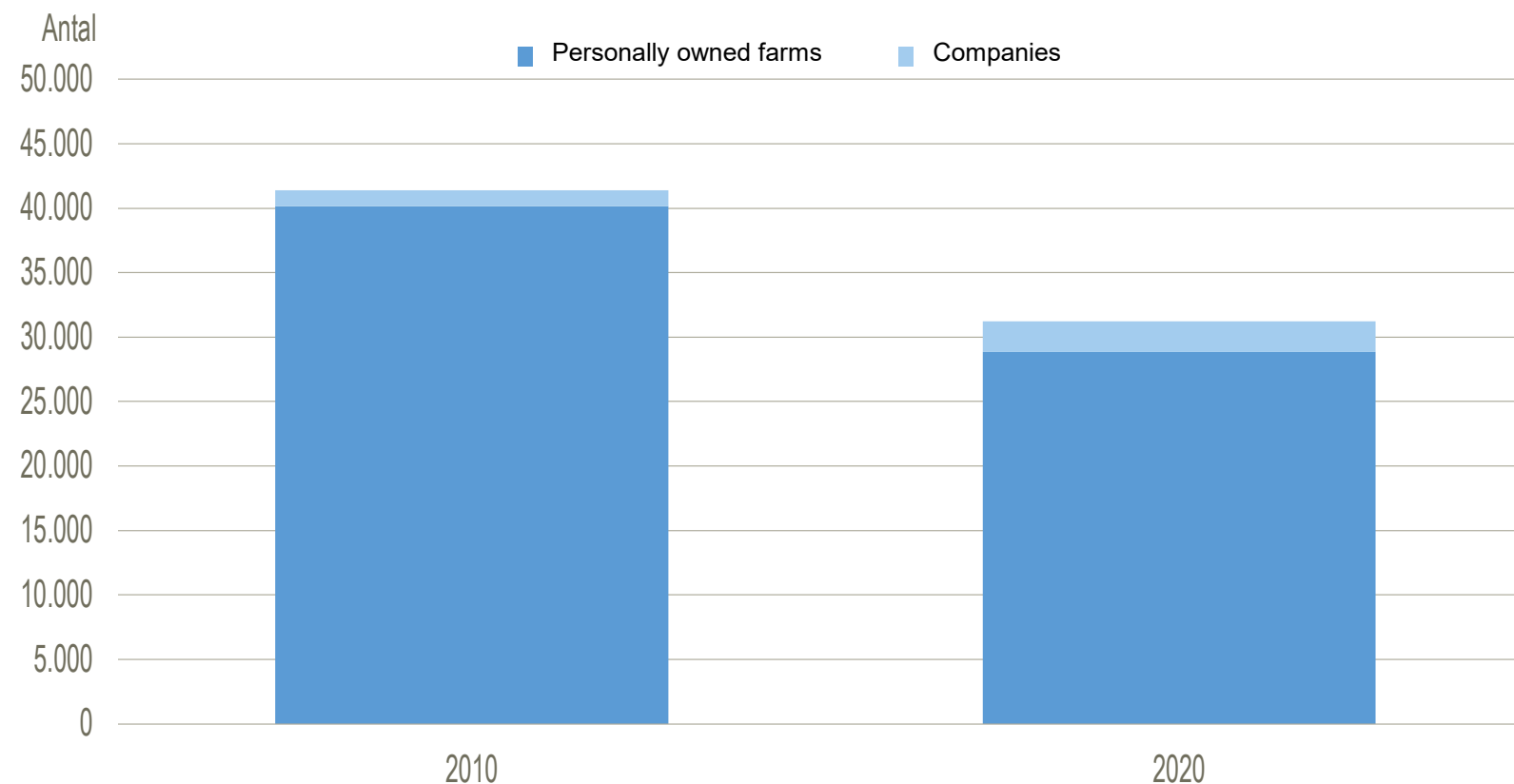
**Fig. 1: Development in full- and part-time agricultural holdings, 2010-2020.**



Source: Agricultural and horticultural census

## Delineation

**Fig. 2: Development in ownership**



- Farms constructed as companies are excluded for technical reasons.
- Companies accounted for 5 % of full-time farms in 2010 and 14 % in 2020.
- Personally owned farms includes sole proprietorships and partnerships (I/S)

Source: Agricultural and horticultural census and The Statistical Business Register.

Note: In the figure, a total of 2,900 holdings in 2010 and 2,100 holdings in 2020 are omitted, because the ownership relationship is not stated in The Statistical Business Register.

## Farmers are most often married and have more children

Farmers 2020

### 94 % are male

Amongst new farmers (2010-2020), the proportion of women is 10 %

### 50 % are 55 years or older

26 percentage points more than in the workforce in general

### 72 % are married

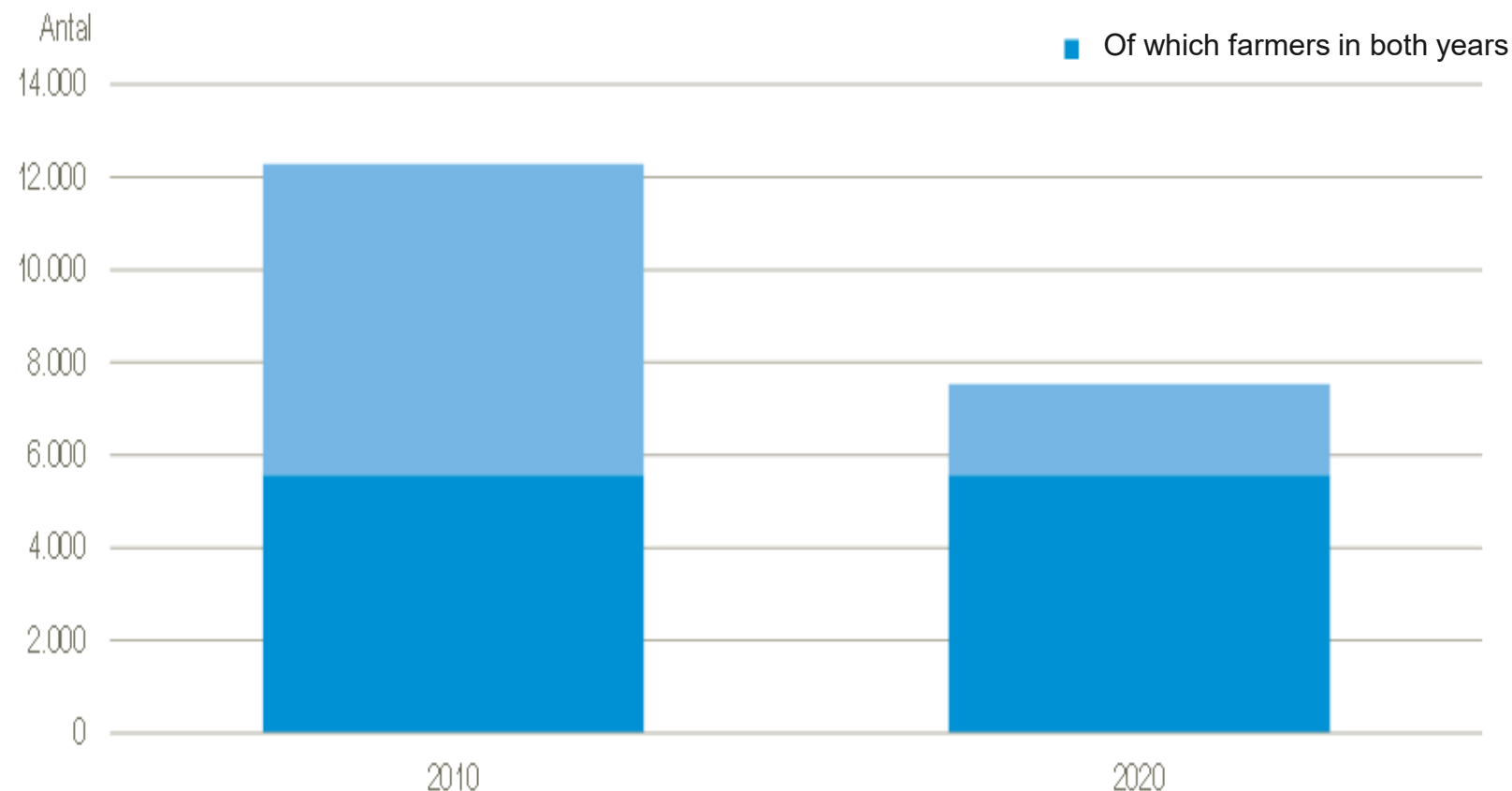
23 percentage points more than in the workforce in general

### 2,4 children

People in the workforce have an average of 1,4 children



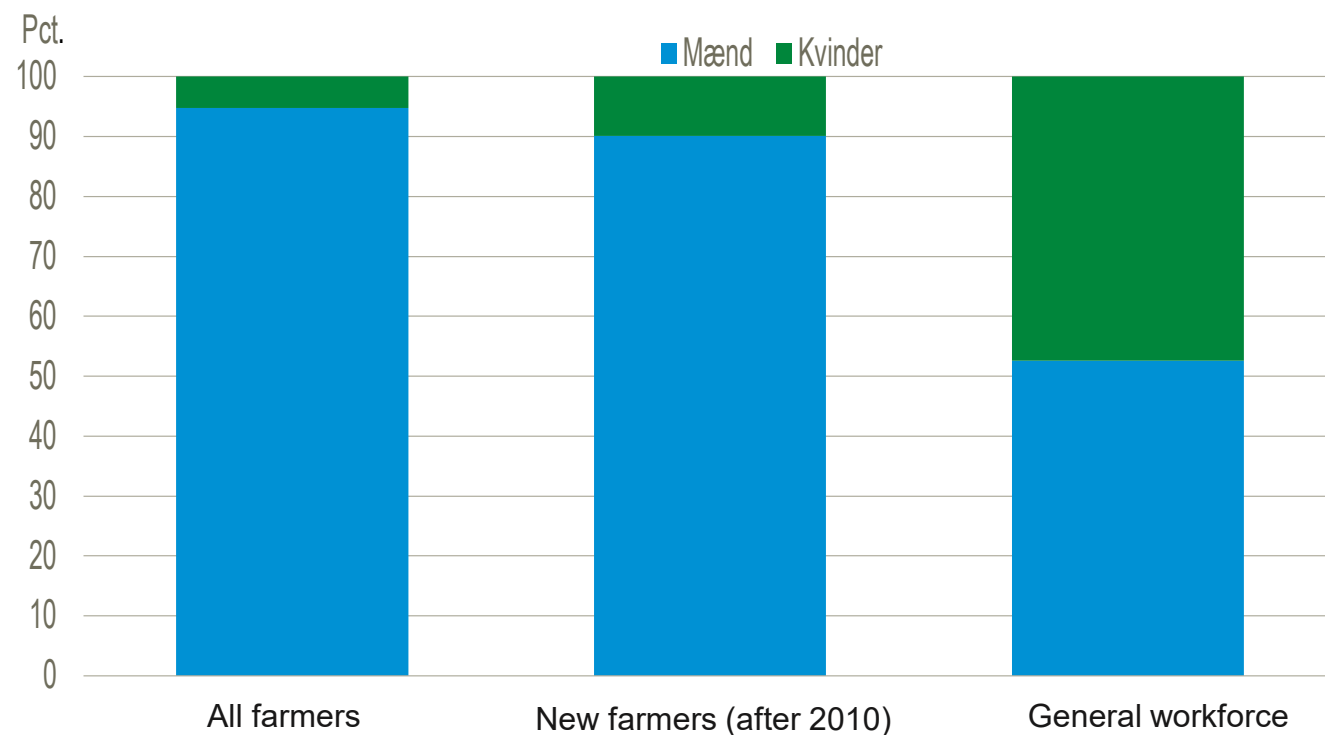
**Fig. 3: Number of farmers in 2010 and 2020**



- 2.000 new farmers from 2010 to 2020
- 27 % of new farmers have at least one parent who was a farmer in 2010
  - Of these 42 % established on same farm as parent(s)

Source: Agricultural and horticultural census and The Statistical Business Register.

**Fig. 4: Gender representation amongst farmers, new farmers, and the general labour force, 2020**

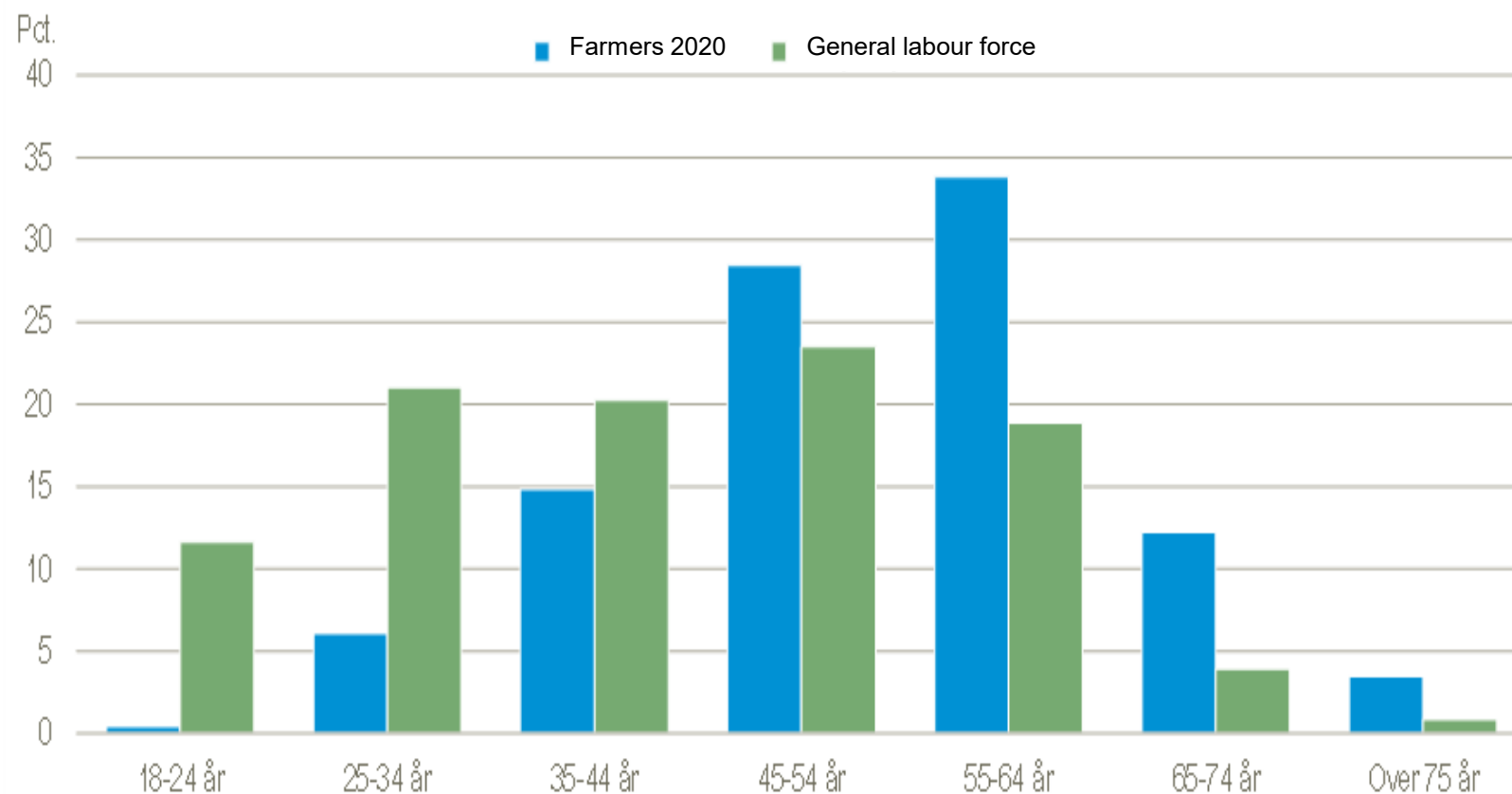


- 94 % of farmers are male
  - In Danish: 'Landmand'
- 10 % of new farmers are female

Source: Agricultural and horticultural census, The Register-based Labour Force Statistics (RAS), and Population Statistics (BEF).



**Fig. 5: Age distribution amongst farmers and in the general labour force, 2020**



**The average farmer:**

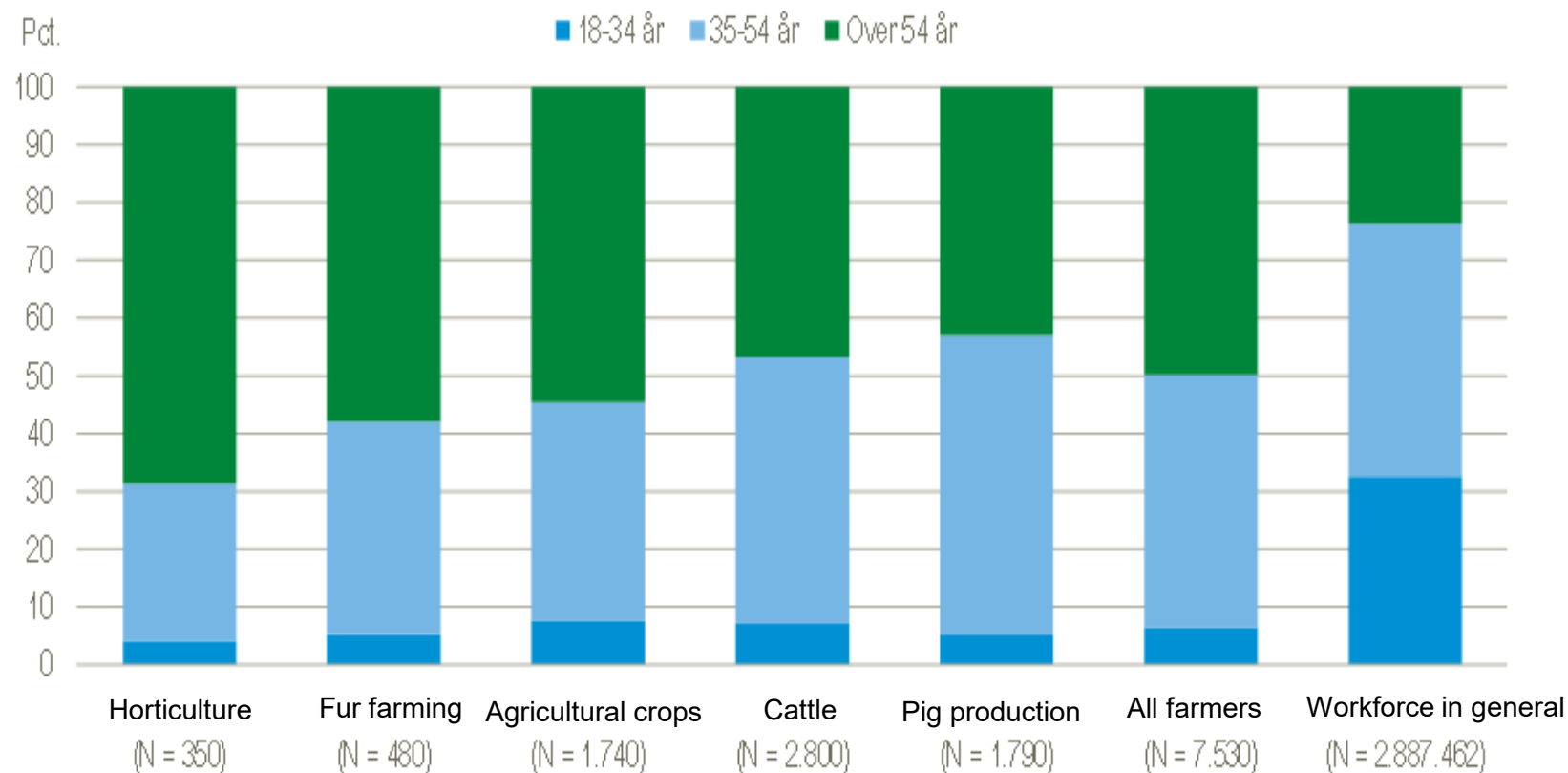
- 49.2 years old in 2010
- 53.6 years old in 2020

**The workforce in general:**

- 41.9 years old in 2010
- 42.8 years old in 2020

Source: Agricultural and horticultural census, The Register-based Labour Force Statistics (RAS), and Population Statistics (BEF).

**Fig. 7: Age distribution of farmers by selected farm types, 2020**



- 69 % of horticulturists are 55 years old or above
  - 58.7 years old
  - 5.1 years more than the average farmer
  - 15.9 years more than the workforce in general

Note: Only about 50 % are self-owned and included in the analysis

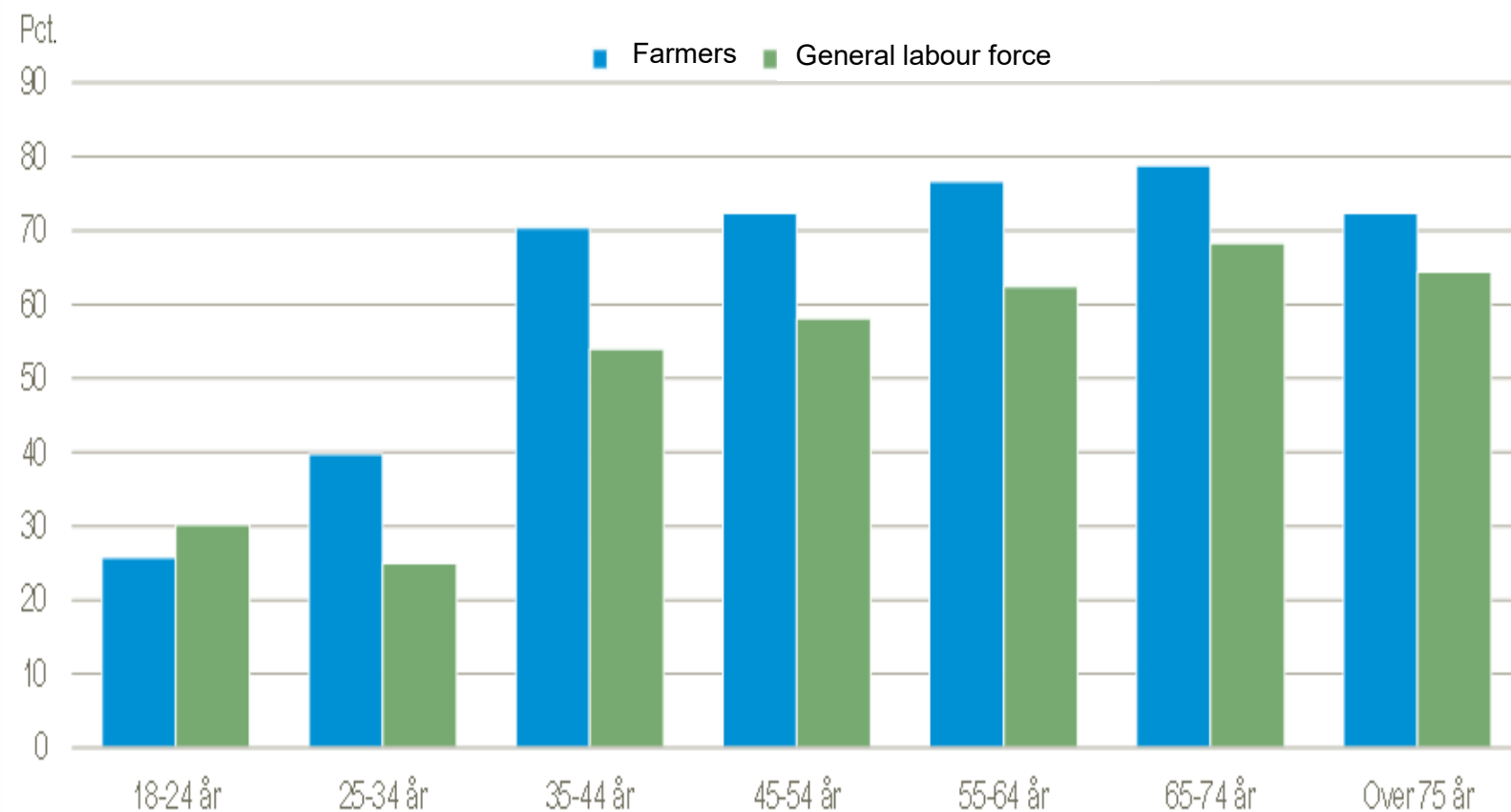
Source: Agricultural and horticultural census, The Register-based Labour Force Statistics (RAS), and Population Statistics (BEF).  
 Note: Data from the total census was collected at the end of May 2020, whereby the major changes that have subsequently occurred within mink breeding (under fur farms) are not reflected in the figures.

**Fig. 8: Family type for farmers and people in the general labour force, 2020**



Source: Agricultural and horticultural census, The Register-based Labour Force Statistics (RAS), and Population Statistics (BEF).

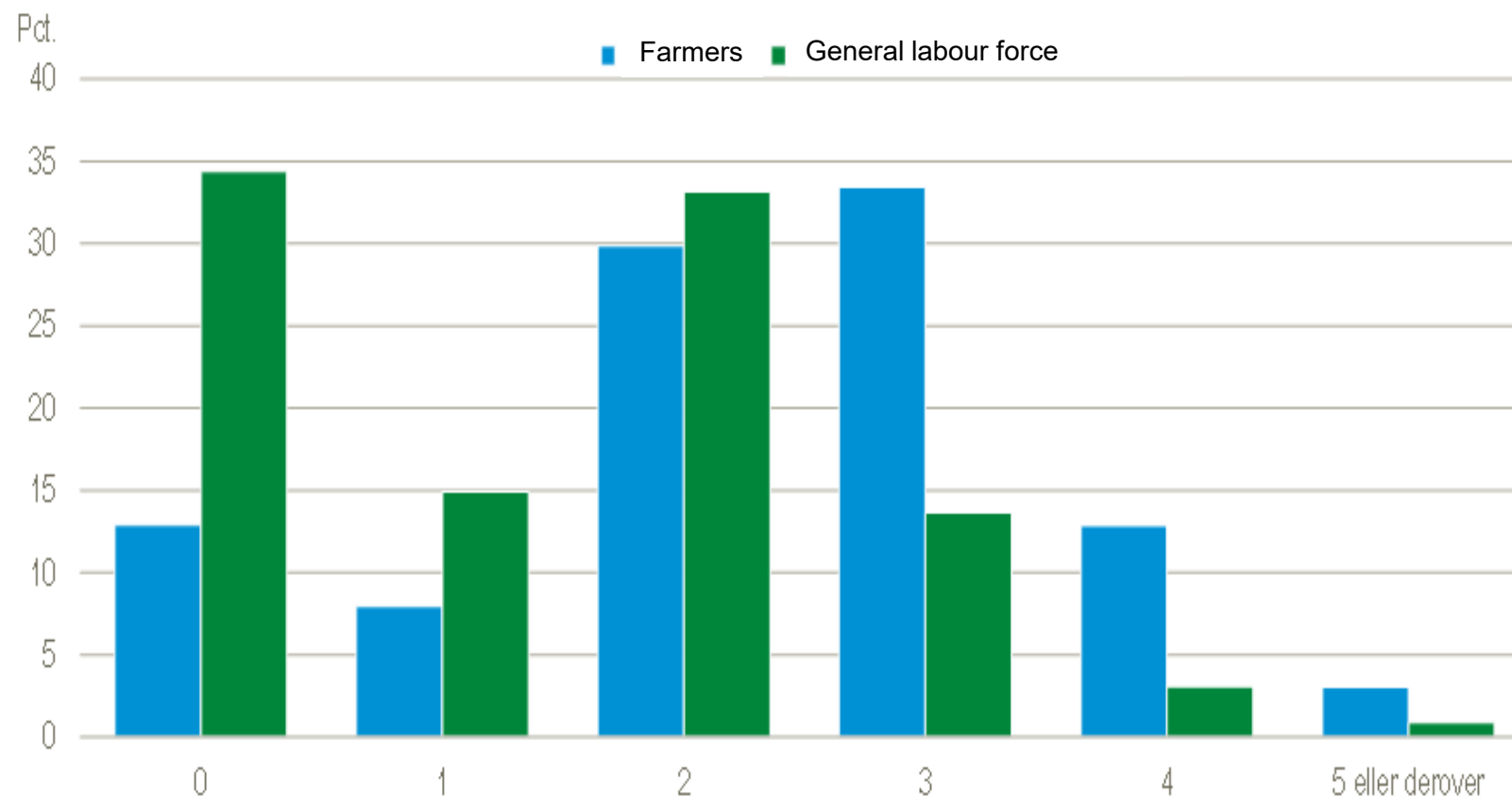
**Fig. 9: Share of married farmers and people in the general workforce by age, 2020**



- Civil status not due to age

Source: Agricultural and horticultural census, The Register-based Labour Force Statistics (RAS), and Population Statistics (BEF).

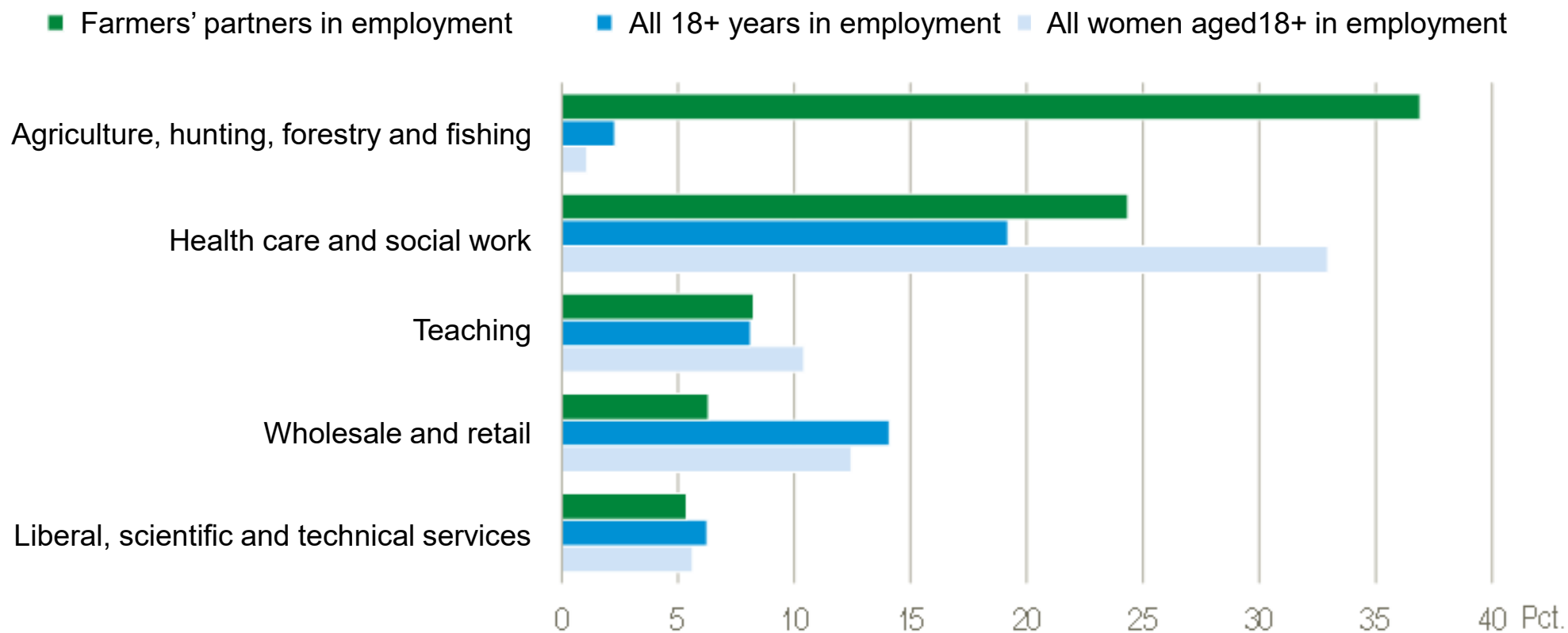
**Fig. 10: Number of children, farmers and people in the general labour force, 2020**



- 28 % of farmers have children who work with agriculture, hunting, forestry and fishing.

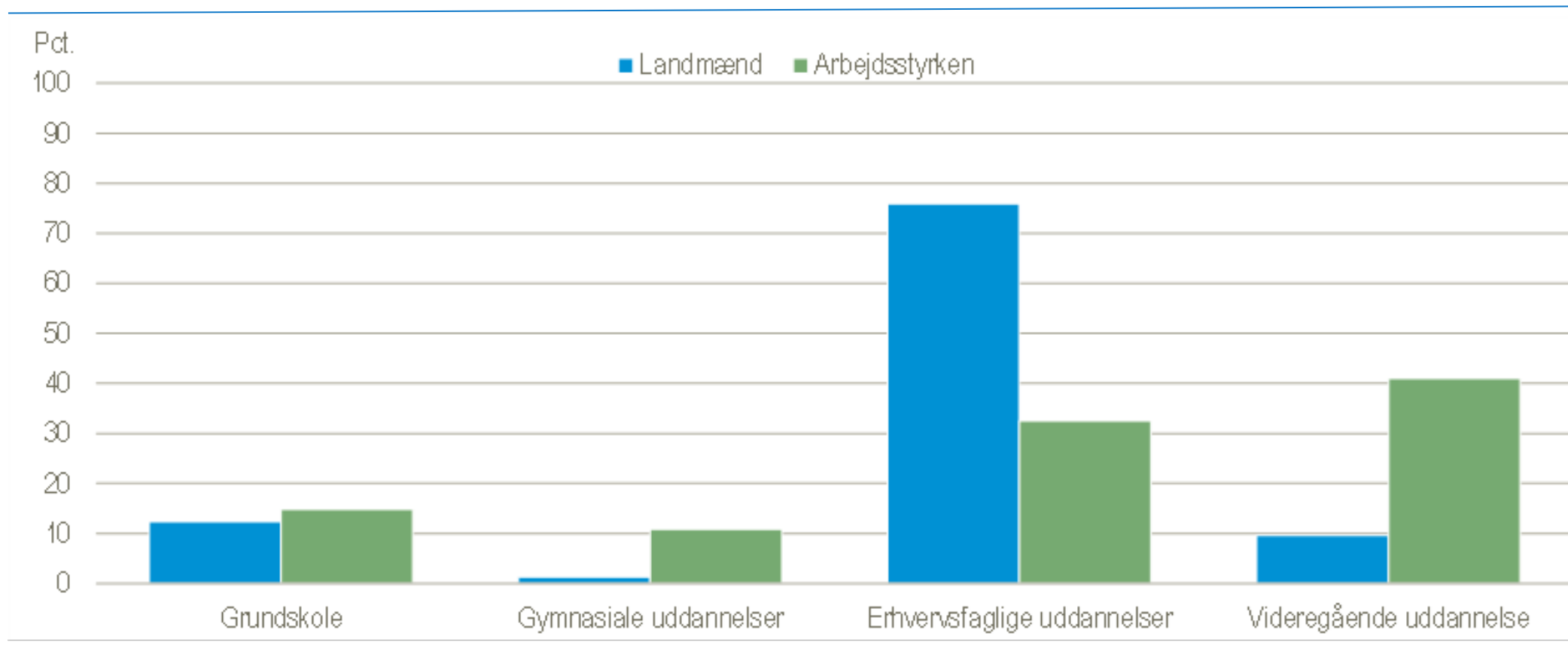
Source: Agricultural and horticultural census, The Register-based Labour Force Statistics (RAS), and Population Statistics (BEF).

**Fig. 13: Top five industries for farmers' partners, 2020. N=4.600**



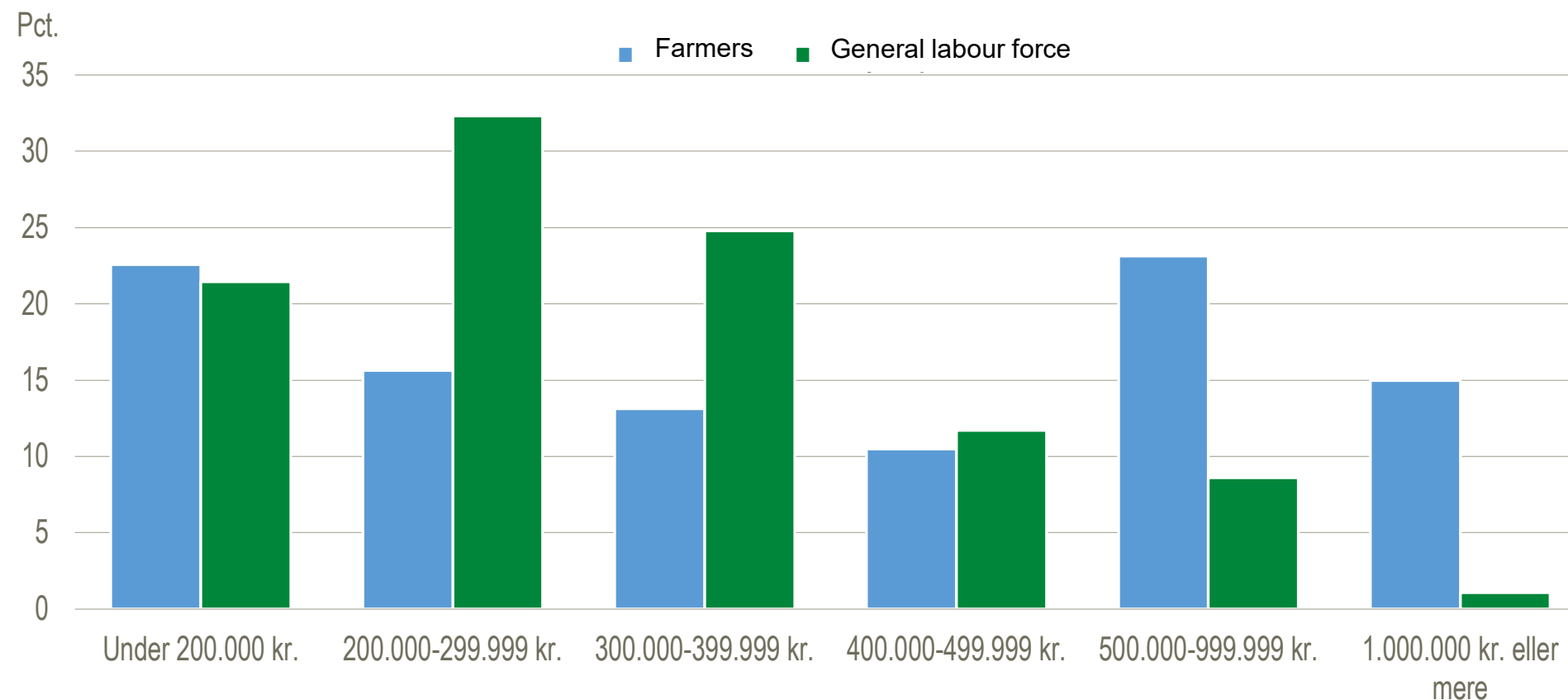
Source: Agricultural and horticultural census, The Register-based Labour Force Statistics (RAS), and Population Statistics (BEF). The categorization is based on the DB07, v3:2014-, 19 grouping. Note: The green column includes both women (95 per cent) and men (5 per cent).

**Fig. 14: Highest completed education for farmers and the labour force, 2020**



Source: Agricultural and horticultural census, The Register-based Labour Force Statistics (RAS), and Population Statistics (BEF).

**Fig. 16: Equivalent disposable income for farm families and families in the labour force, 2020**

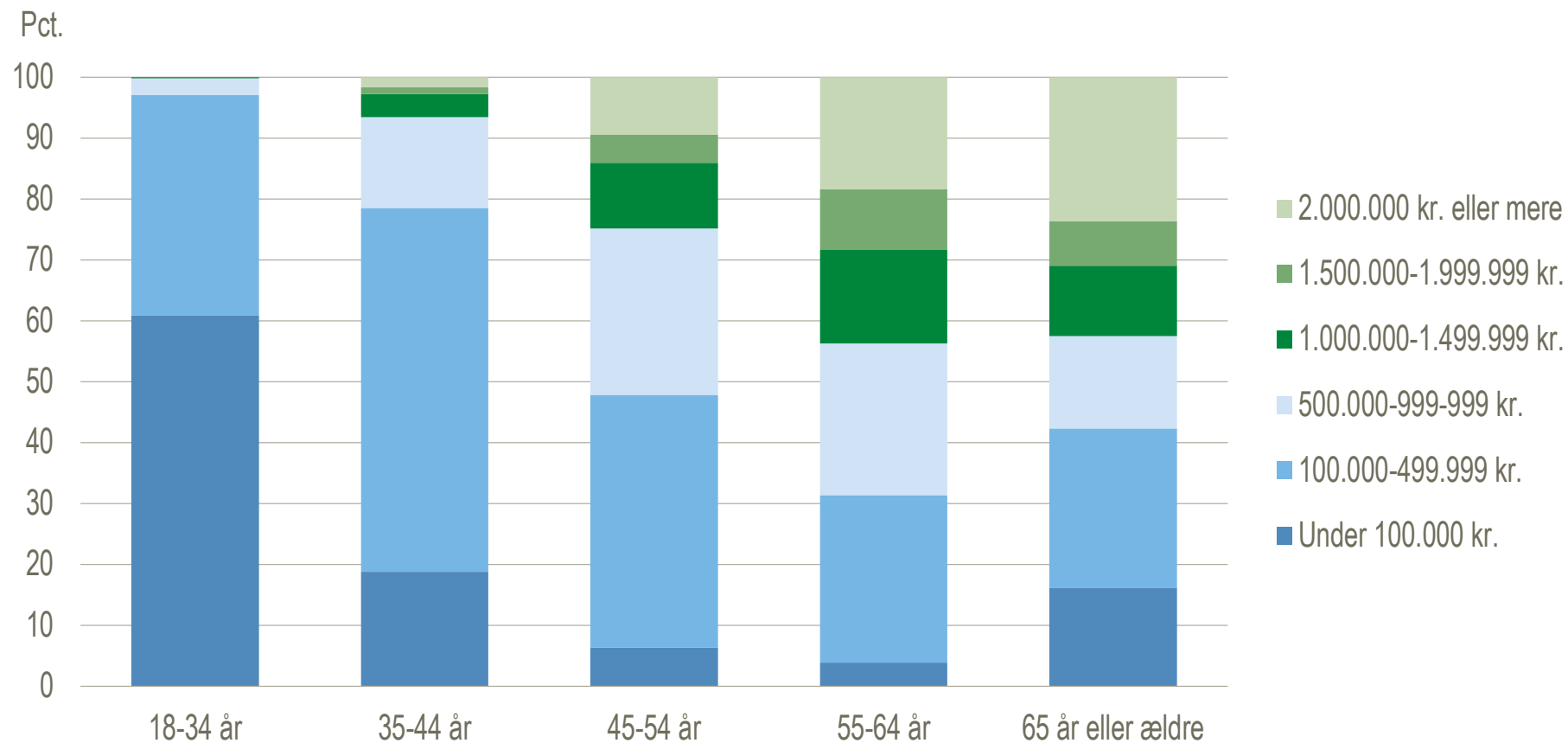


Source: Agricultural and horticultural census, The Register-based Labour Force Statistics (RAS), Population Statistics (BEF) and The Family Income Register.

Note: The amounts in the figure are a constructed measure and therefore cannot be used to describe how much money the farming families concretely have available, but can instead be used to group the farming families and the families in the workforce into comparable groups.

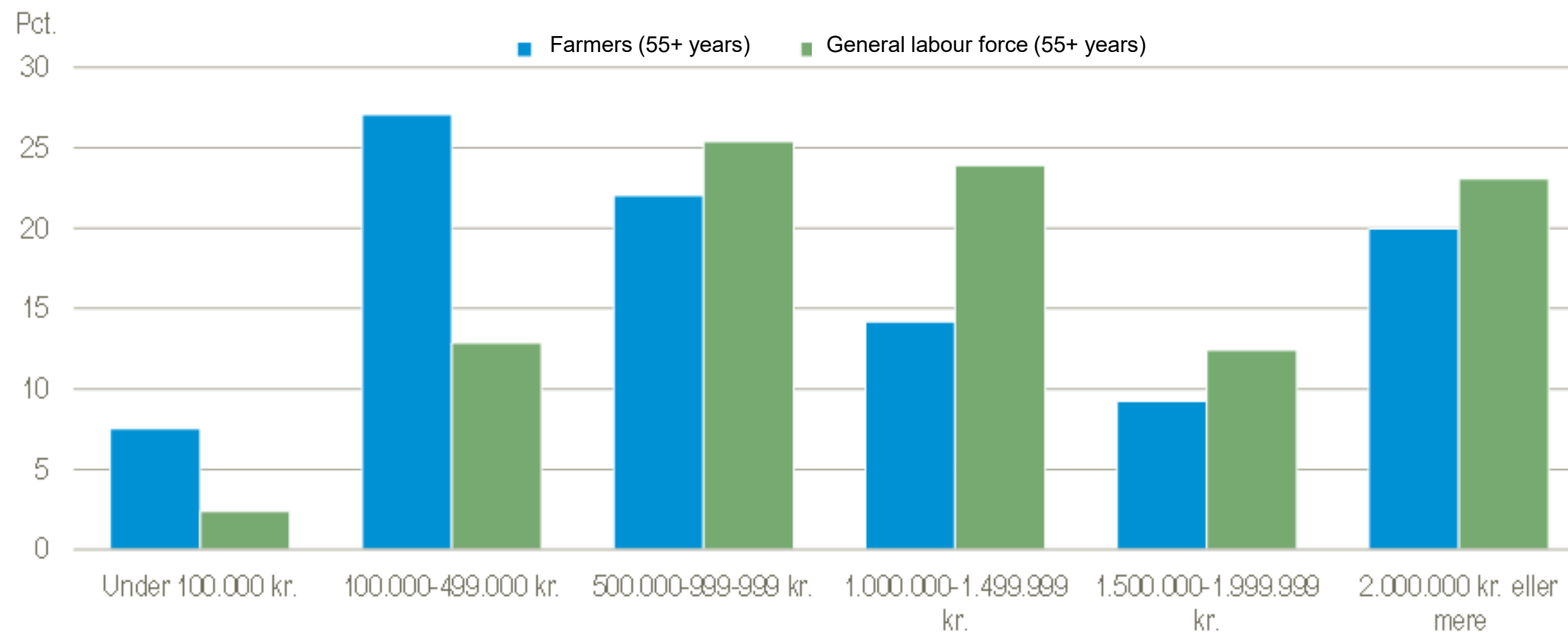


**Fig. 17: Farmers' pensions by age, 2020**



Source: Agricultural and horticultural census, The Register-based Labour Force Statistics (RAS), Population Statistics (BEF) and The Asset and Debt Register.

**Fig. 18: Pension assets for farmers and people in the labour force, 2020**



Source: Agricultural and horticultural census, The Register-based Labour Force Statistics (RAS), Population Statistics (BEF) and The Asset and Debt Register.

Note: The figure includes farmers and people in the workforce who are over 55 years of age. Thus, N = 3,730 for farmers and N = 677,380 for people in the workforce.

# Social variables in farming

- Increased focus on social variables with FSDN
  - Attractiveness – generational change
  - Characteristics of agricultural workers
  - Social security - pensions
  - Education
  - Family income

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