

# Job creation in Denmark

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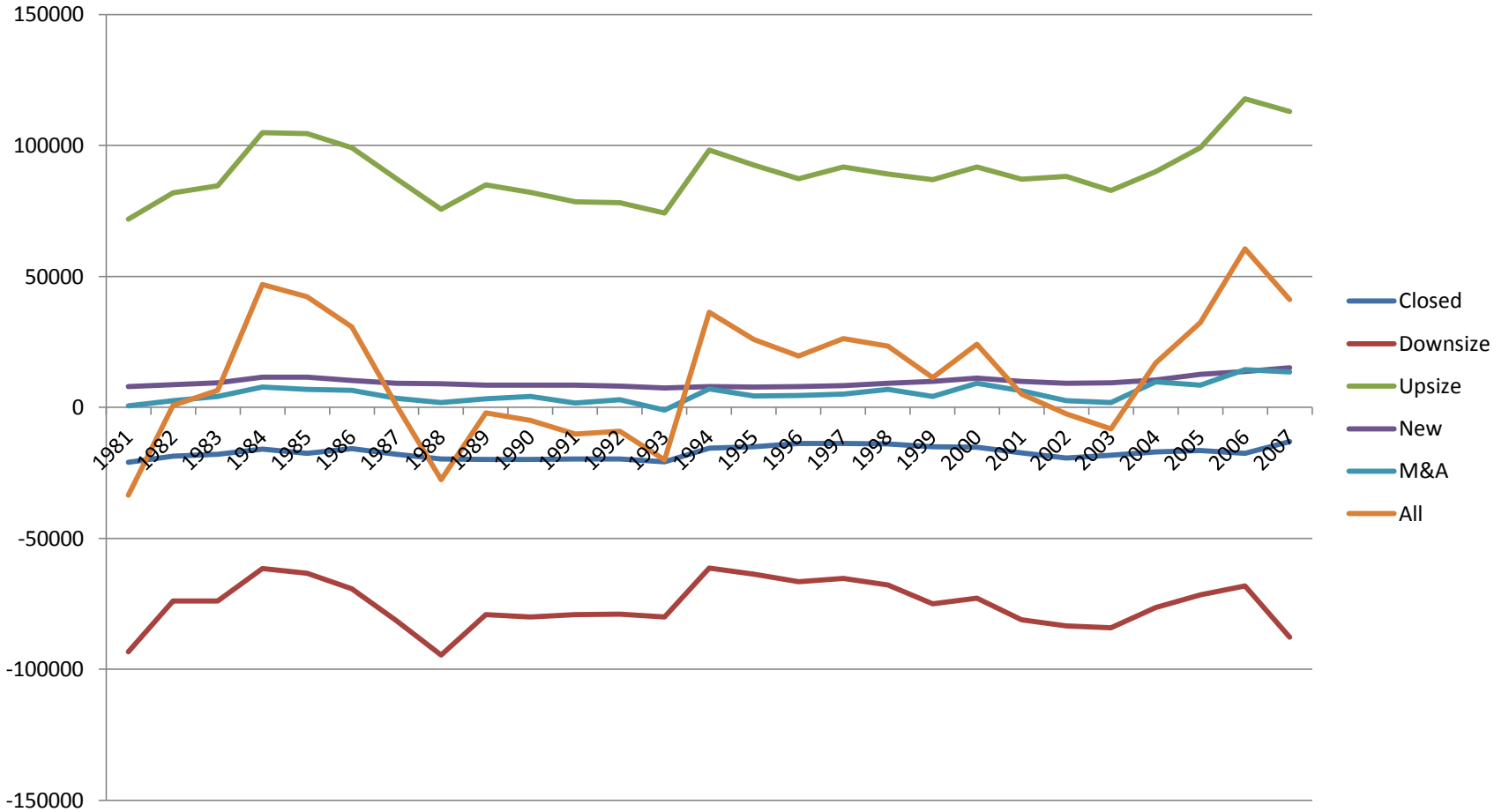
and

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Center for Corporate Performance, ASB, AU

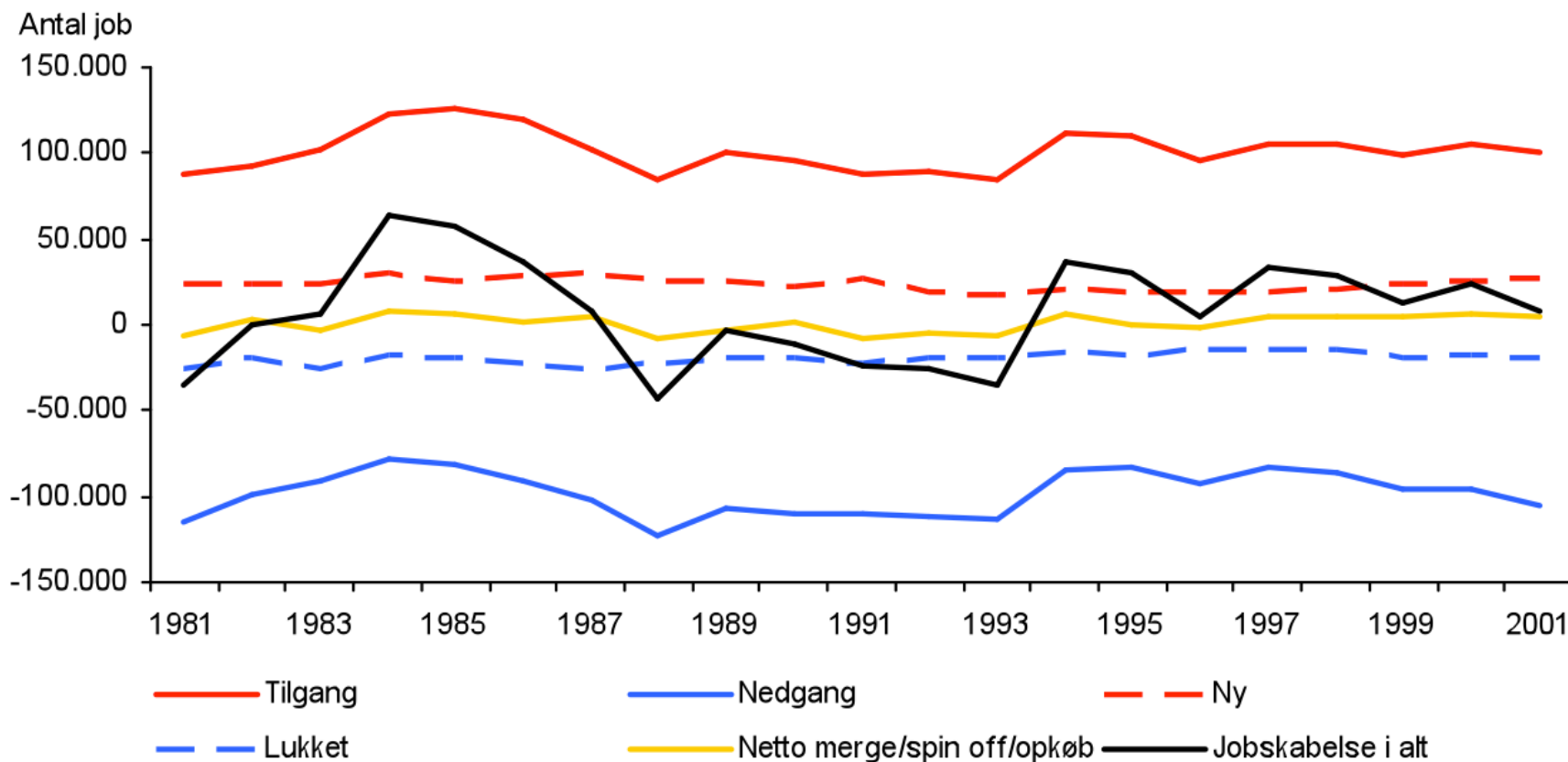
# Motivation

- In DK and elsewhere often believed that jobs are created in the old and big firms
- DK lost 120,000 jobs in manuf industry and 60,000 in the service sector due to the crisis
- Could they be re-created and where?
- The recent work by Haltiwanger, Jarmin and Miranda, Aug 2010

# Firm level growth



# Previous own work on work place/plant level



# Where does it happen? Age?

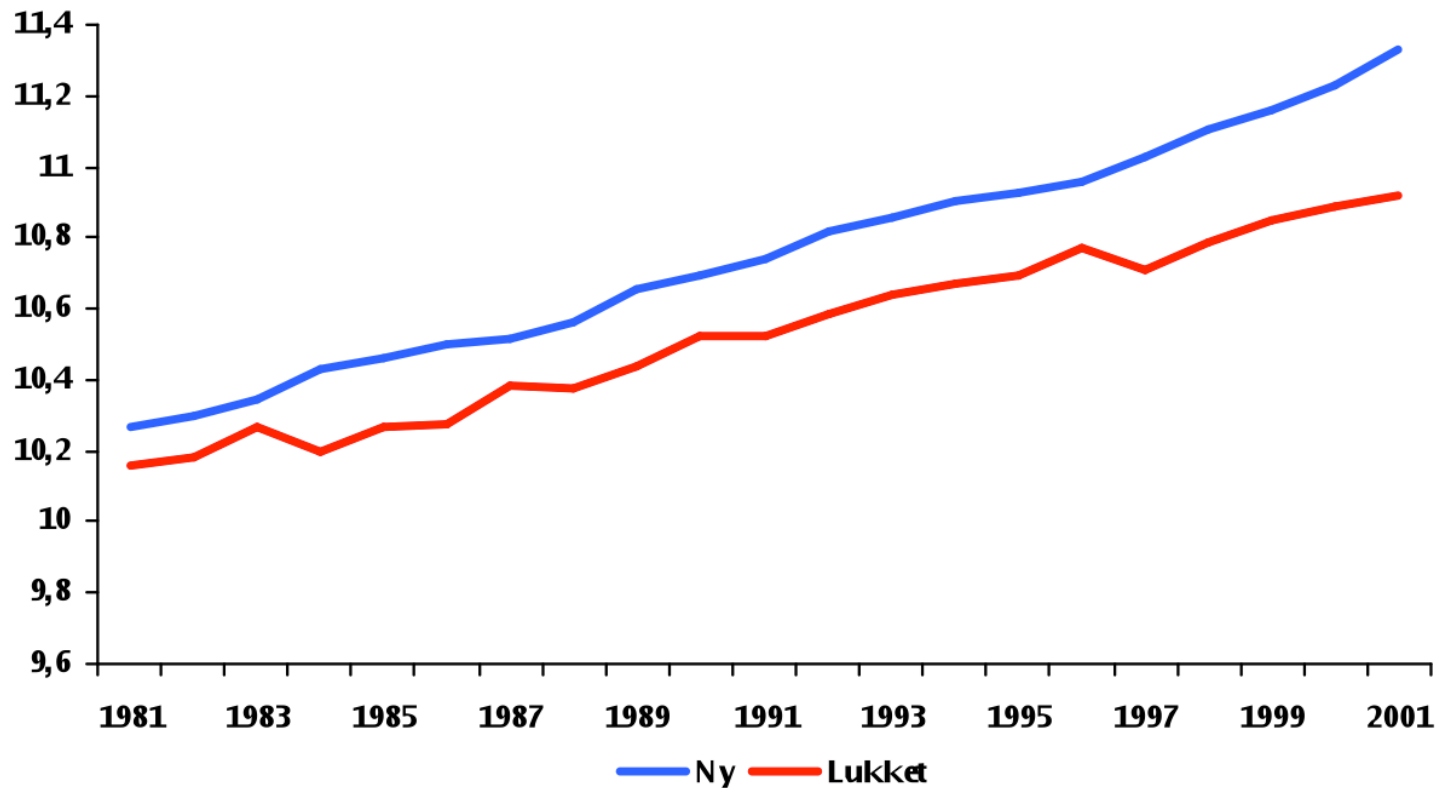
%	Up to 2 years old	3-10 years old	More than 30 years
Job creation in existing workplaces	19	12	7
Job in newly created establishments	22		
Job destruction in existing establishments	-13	-14	-10
Job destruction because of closure	-6	-2	-1
Average net change by year	22716	-4160	-11234

# Where does it happen, size?

%	0-10	11-50	51-200	200+
Job creation on existing establ	16	7	5	3
Jobs in newly created establ	5	1	1	1
Job destruction in existing establ.	-14	-8	-6	-3
Job destruction due to closure	-4	-1	-1	-1
Average net change per year	12635	-1779	-1431	-1915

# Education and new establishments

Gennemsnitlig  
uddannelse i år



# Problems with data

- Firms: workplaces are difficult, but firms are much more difficult due to
  - Admin. changes
  - Ownership changes
  - Mergers and acquisitions
  - Firm death
  - Firm birth
- Danish data not so different from US data



# Base year and current size

- Base year: Growth from year  $t-1$
- Current year: Growth from the mean value between  $t-1$  and  $t$ 
  - Regression towards the mean problem

# Data issues

- Firm age: first time a firm enters and age of oldest establishment in firm.
- An establishment can not have a start year earlier than 1980. We use ATP data on status of individuals in 1980, birth when the first person is employed in the firm. ATP data goes back to 1964.
- After an age is given to the firm on entrance, the firm ages whether there are changes due to M&A, and changes in ownership for the whole firm.
- Spin-offs have the age of the mother firm, receiving firm maintains its age

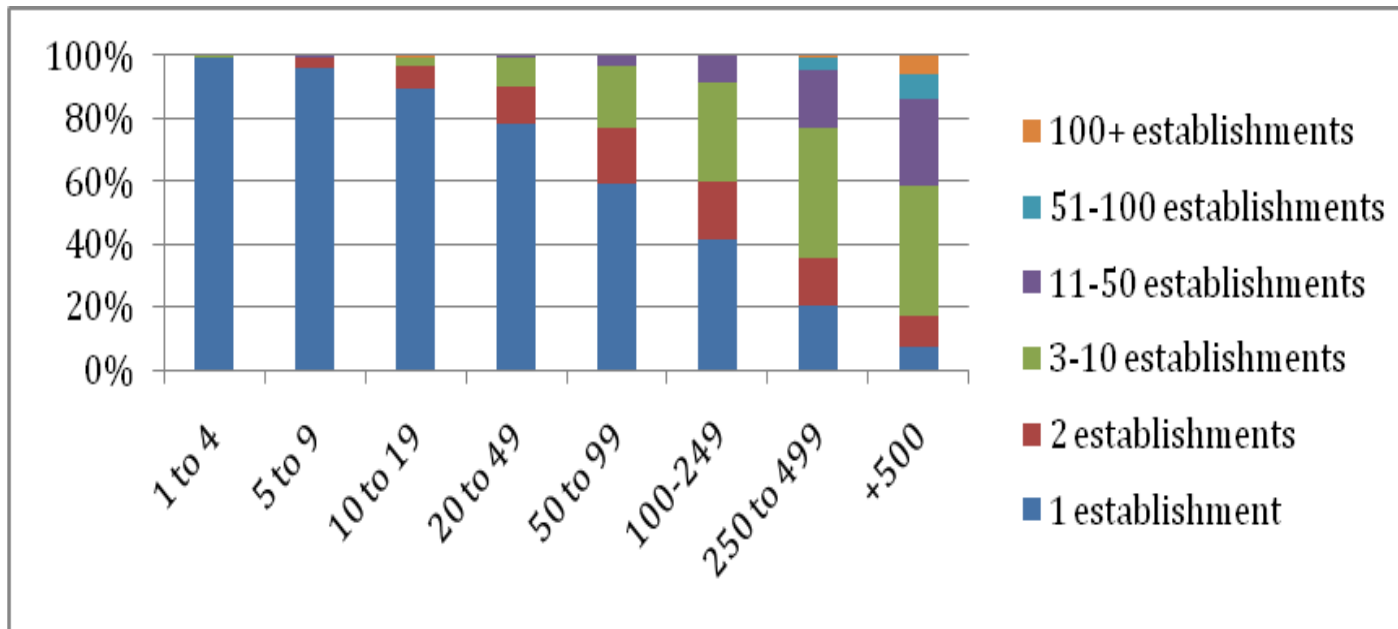
# Definitions

- Identity
  - When ID of firm changes, plant ID determines
- Takeover
  - Growth allocated to new firm in  $t$
  - Taken-over firm disappears
- Firm death
  - When the last establishment stops
- Firm birth
  - When the first establishment is created (resurrections of firm ID is not a birth)

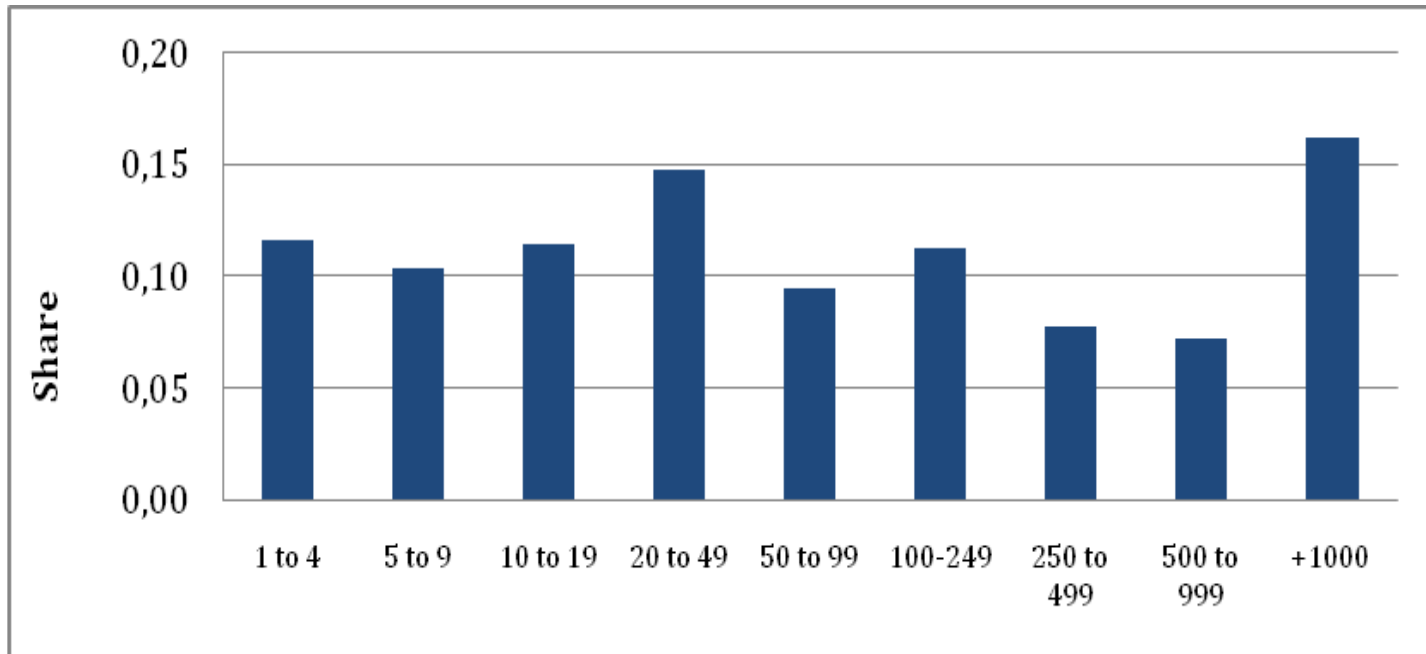
# Spin-off

- Spin-off: part of existing firm creates a new firm
  - Age as mother firm
  - Growth =2 as for all new firms
- Spin-offs interesting because old firms create new firms

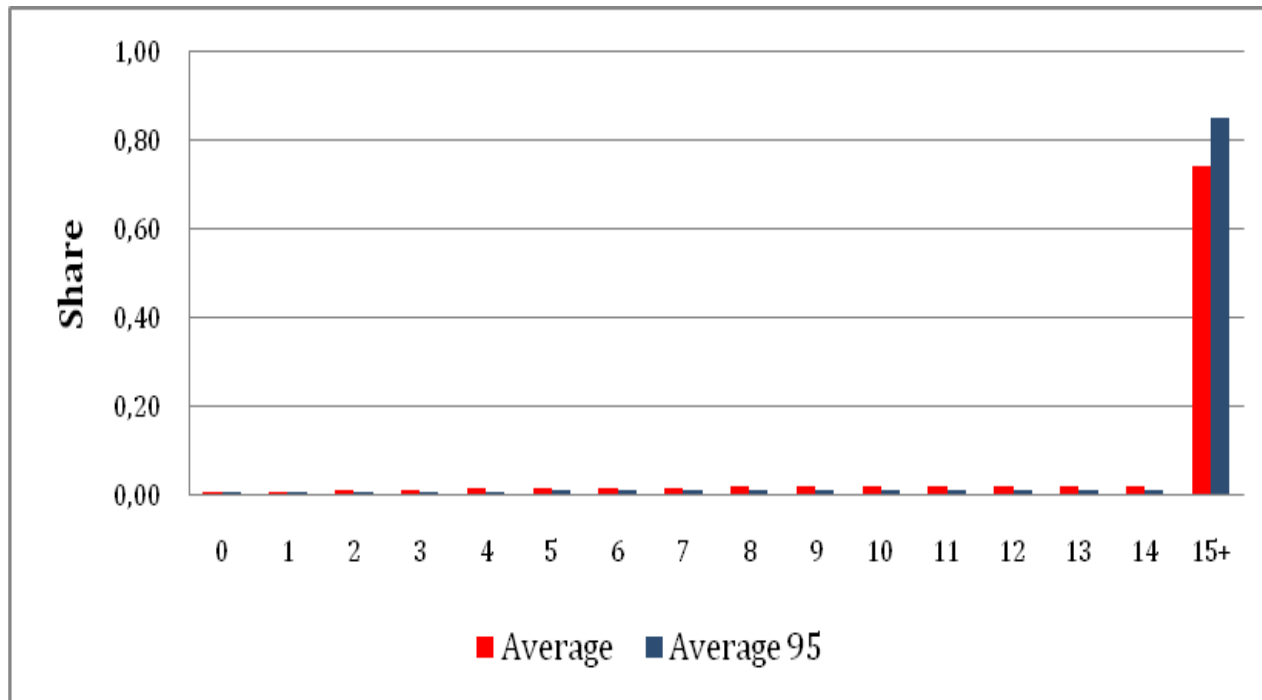
# Firms and # of plants



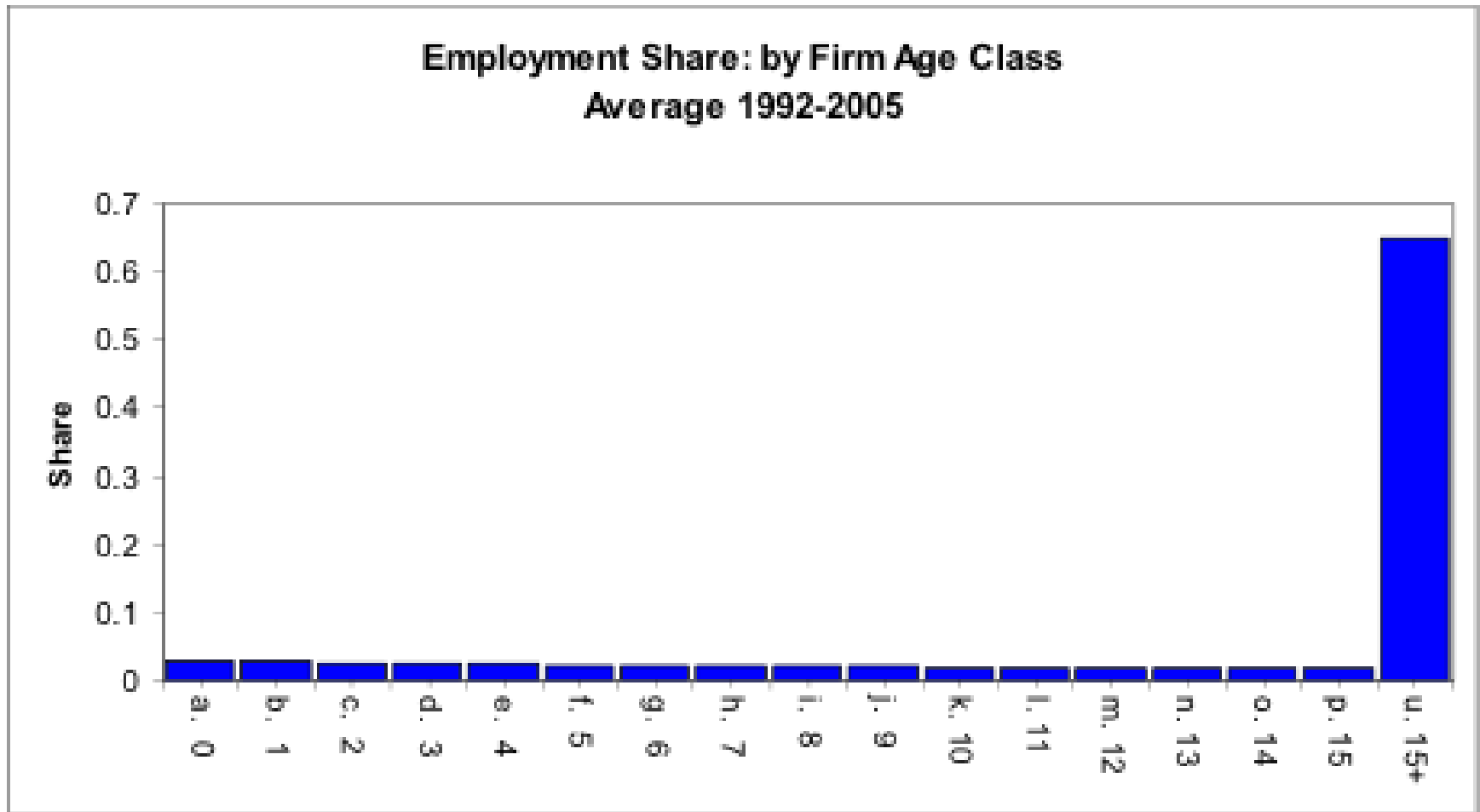
# Size distribution



# Employment firm share: age of firm

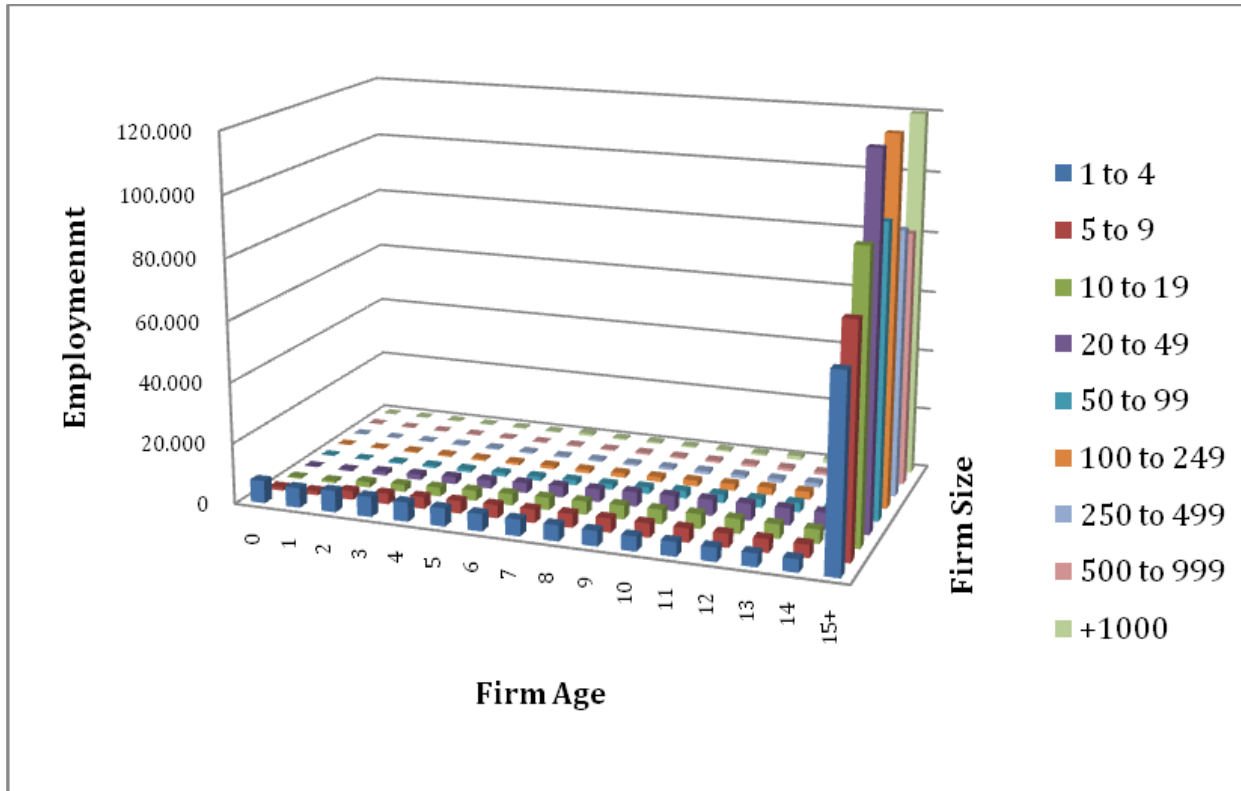


# Haltiwanger et al

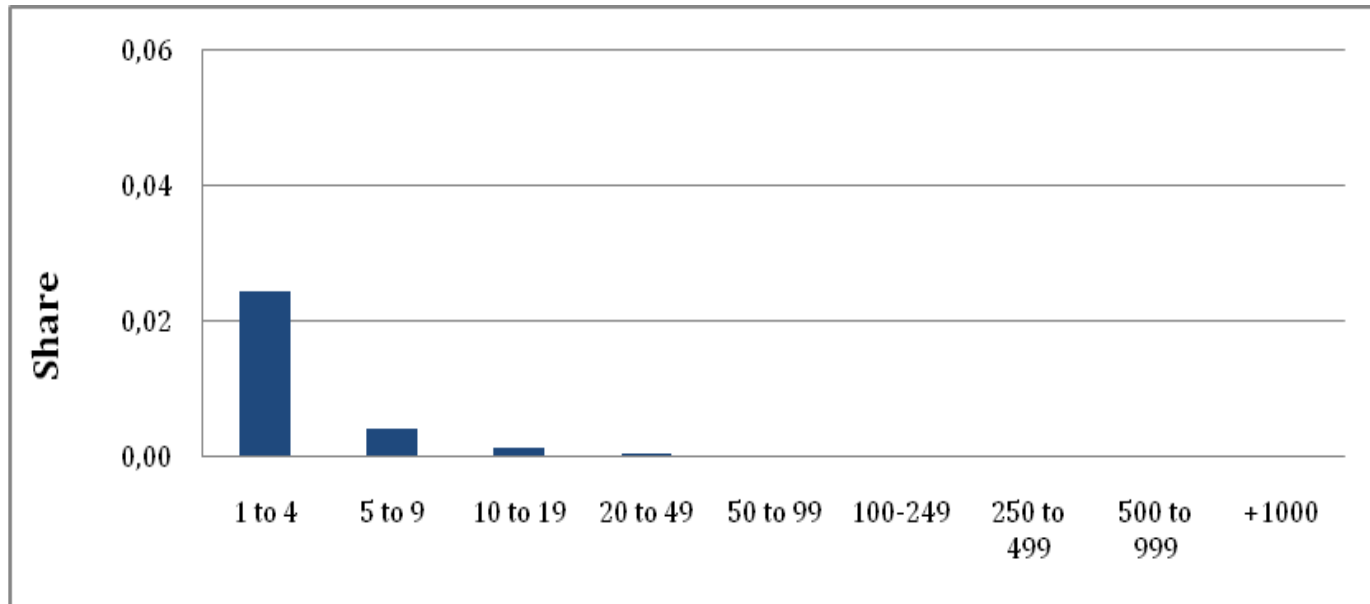




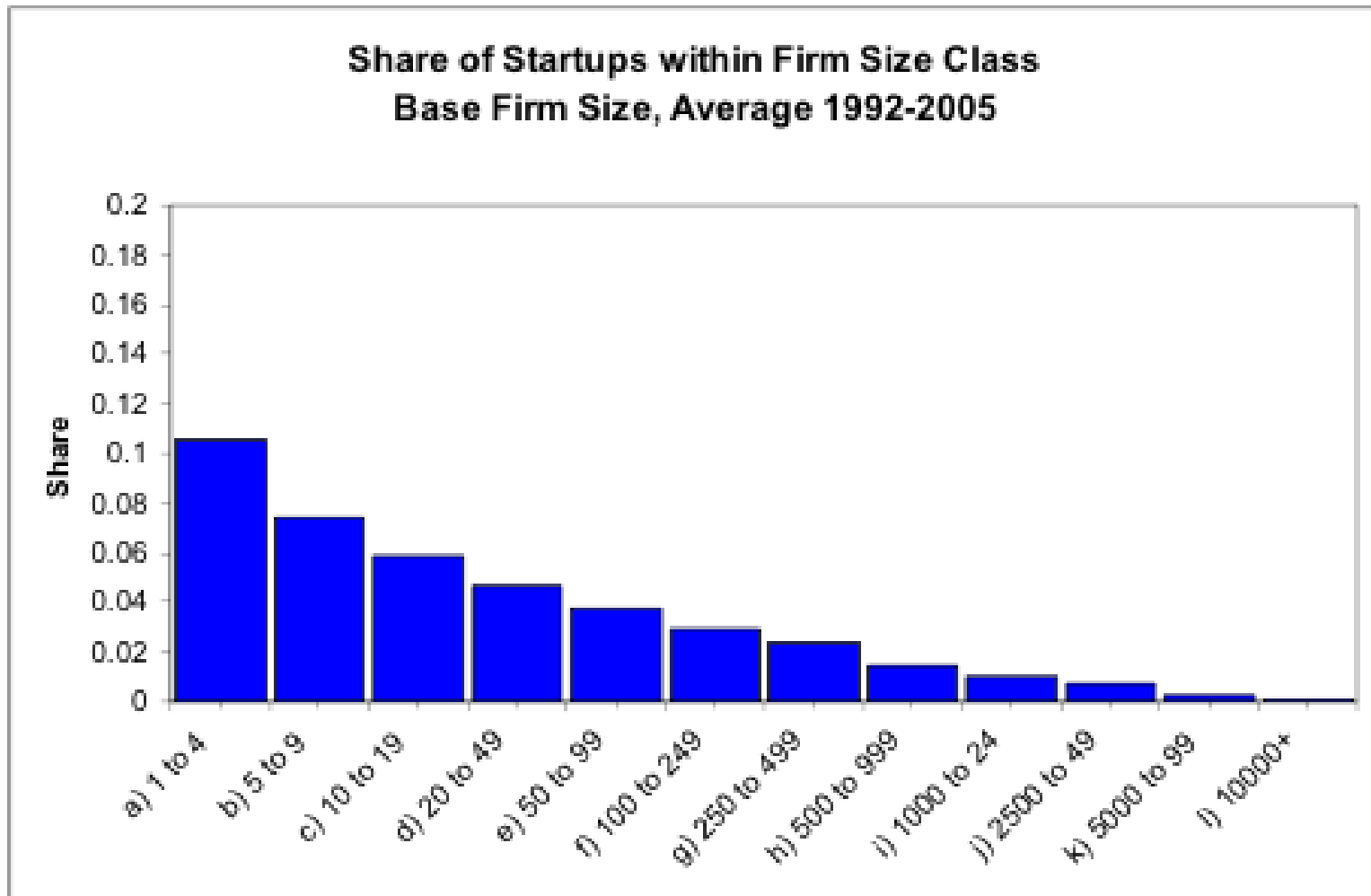
# Firm age and size



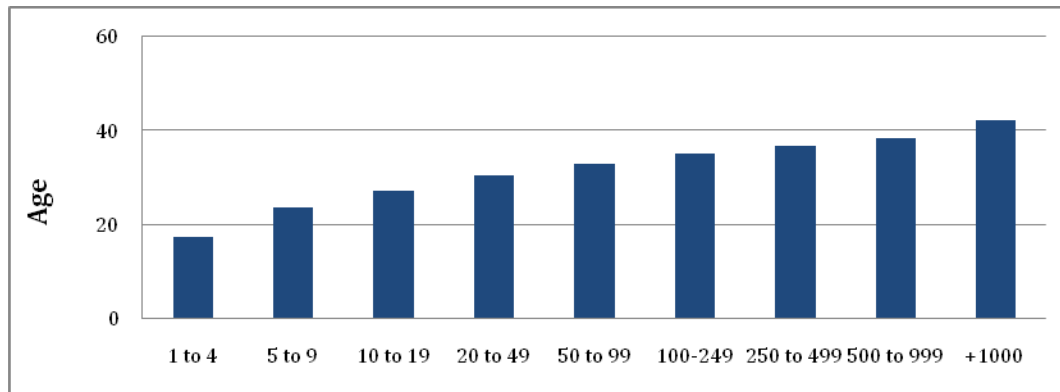
# Share of start ups within firm size class



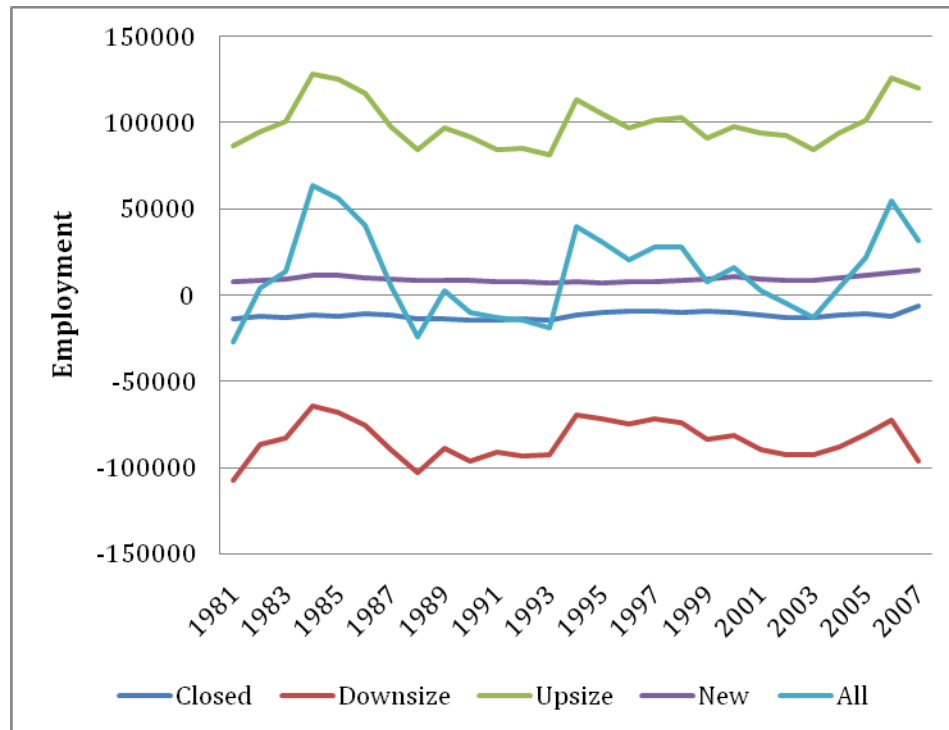
# Haltiwanger et al



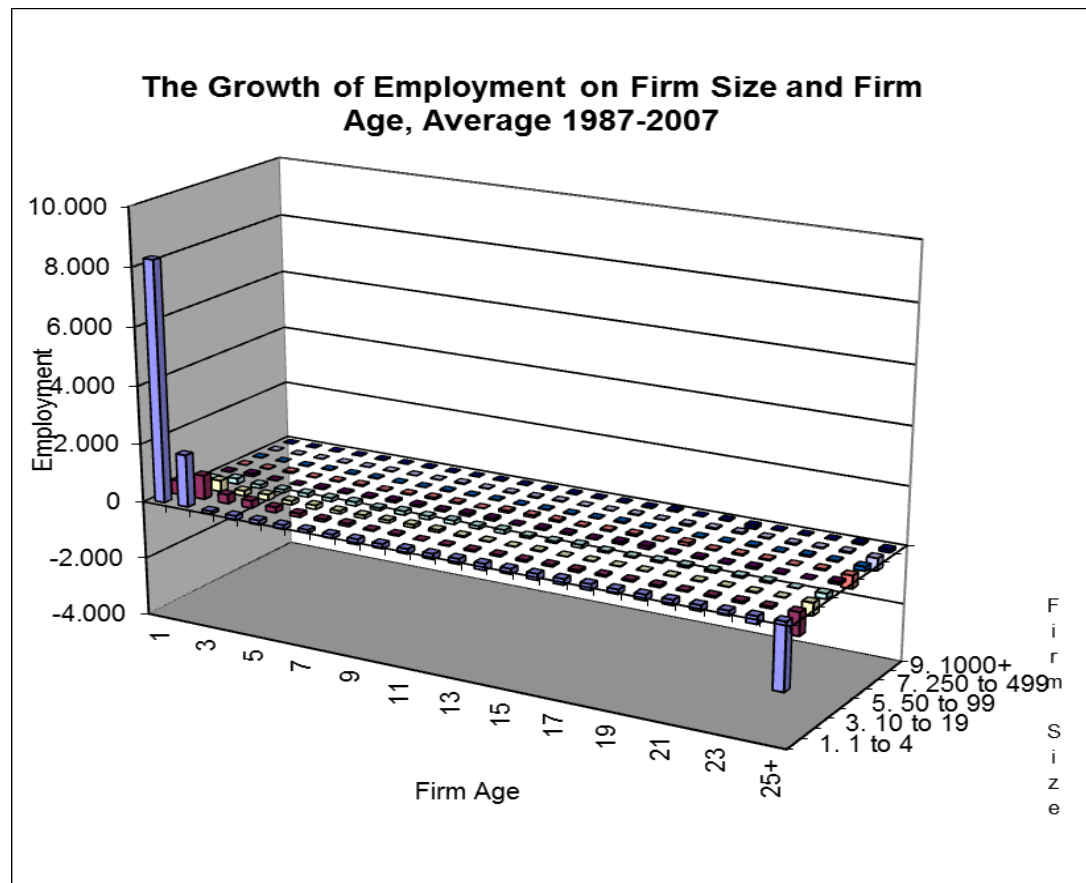
# Average firm age by firm size



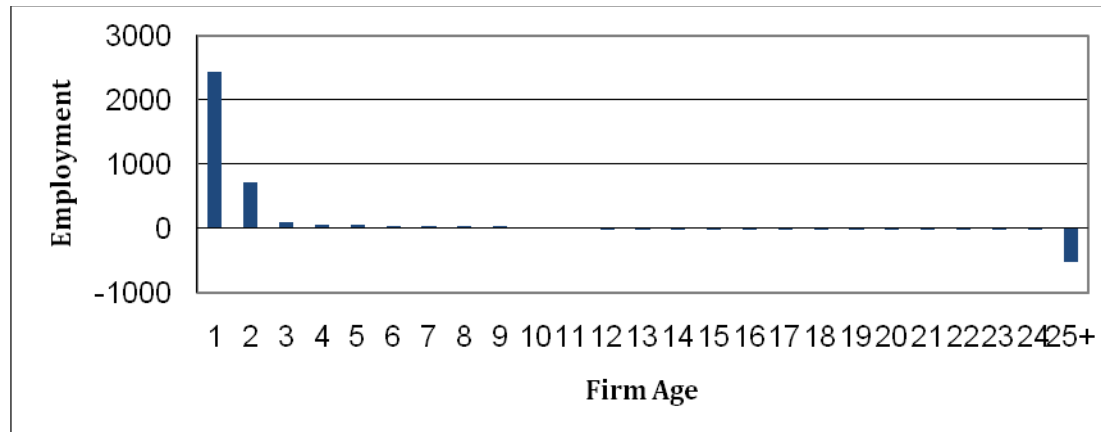
# The number of employees involved closures, downsizing, upsizing and birth



# The growth of employment



# Growth and firm age



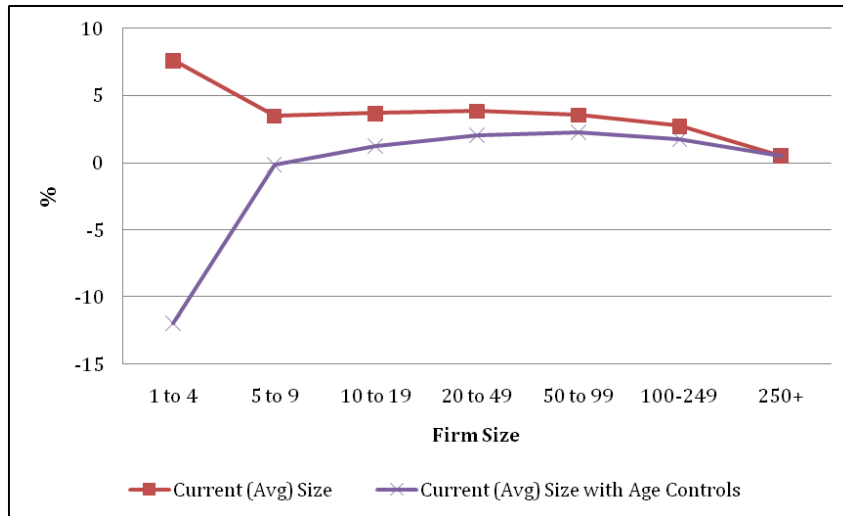
# Regressions

$$g^t = \text{Constant} + \text{age}^t + \text{size}^t + \text{industry}^t + t + \text{college share}^t + \text{error term}^t$$

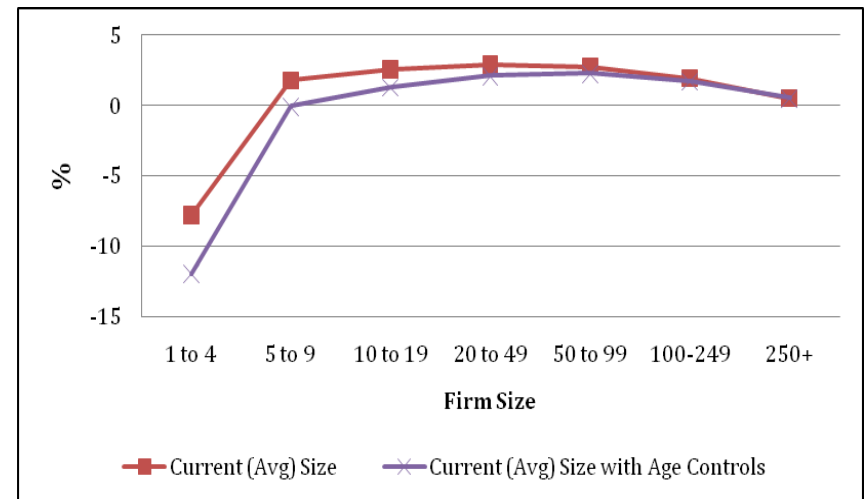


# Coefficients

All firms

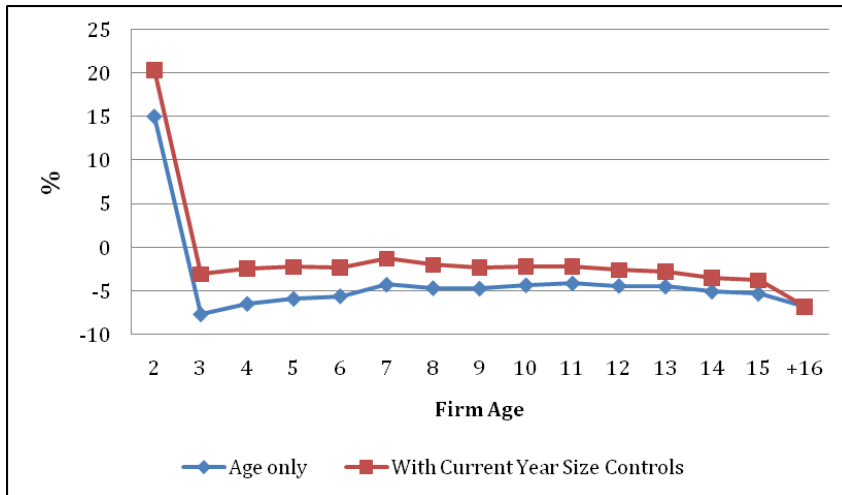


Only continuing firms

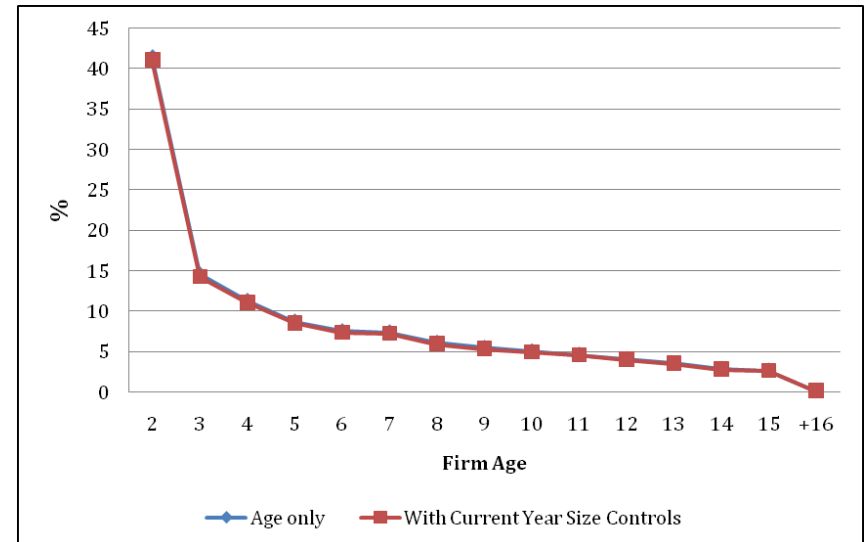


# Firm growth and age

All firms

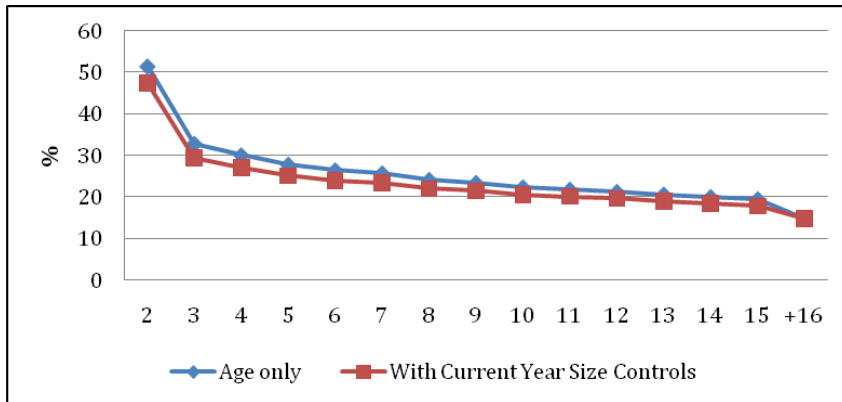


Only continuing firms

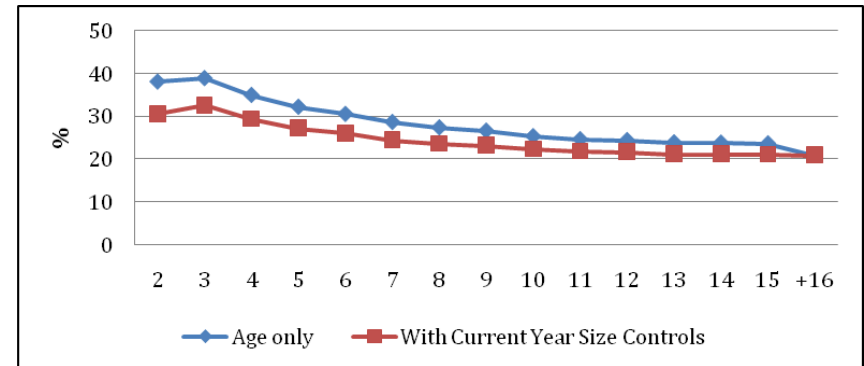


# Job creation and destruction by firm age

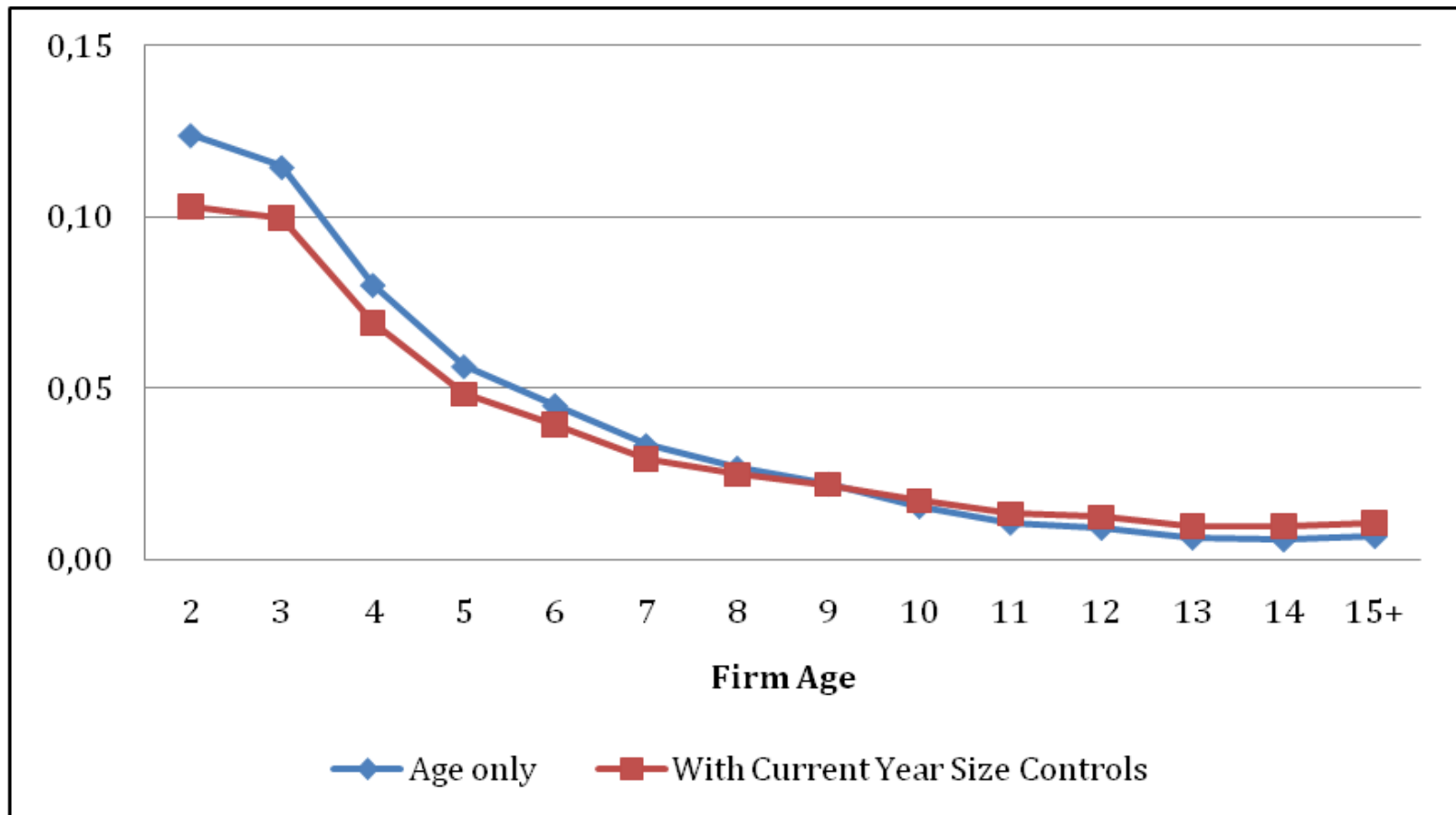
## Creation



## Destruction, due to exits and downsize



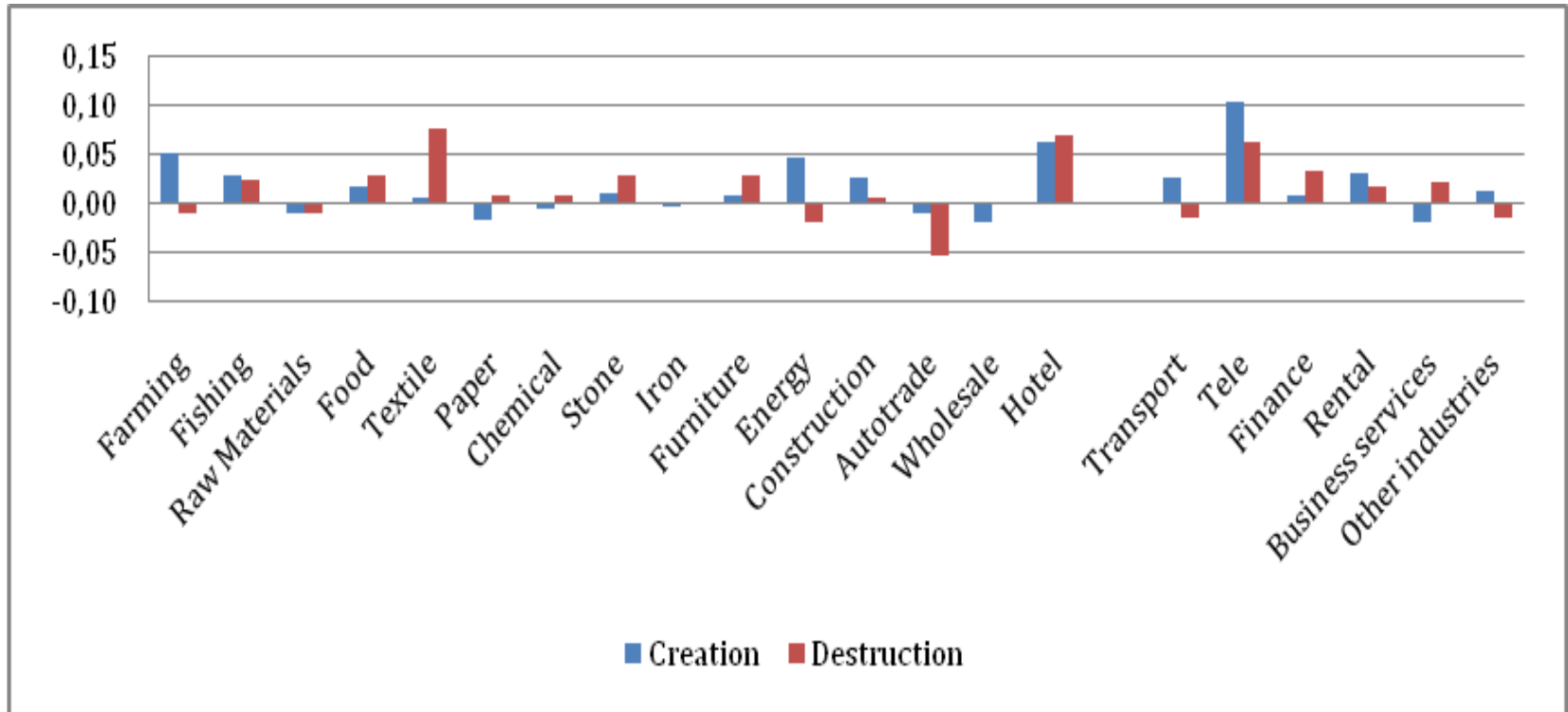
# Job destruction due to exits by age of firm



# Human Capital coefficients

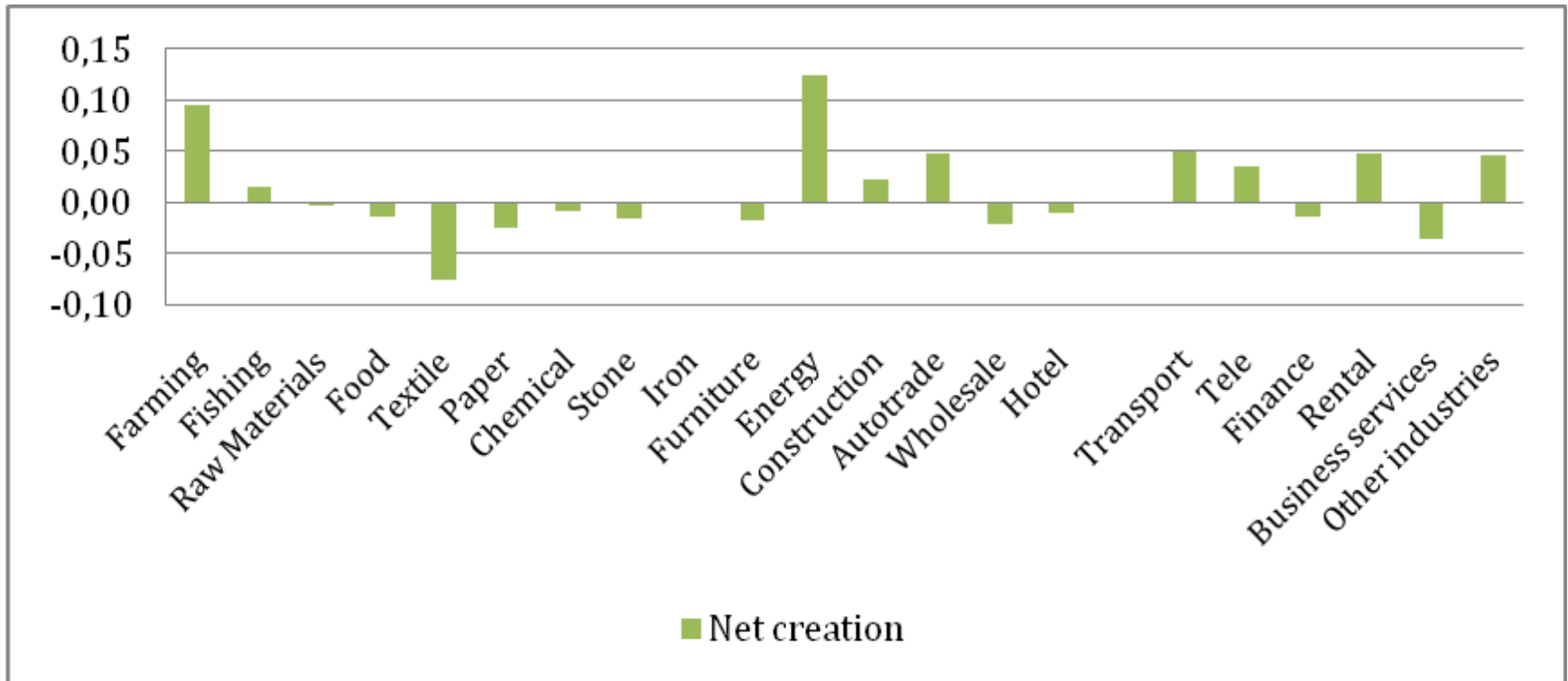
		College training	Std.dev
All firms	Net growth	0.1863	0.0022
Continuing firms	Net growth	0,2234	0,0022
Firm exits	Job destruction	0.0057	0.0010
New or upsizing	Job creation	0.1017	0.0013
Closed or downsizing	Job destruction	-0.1485	0.0013

# Industry differences

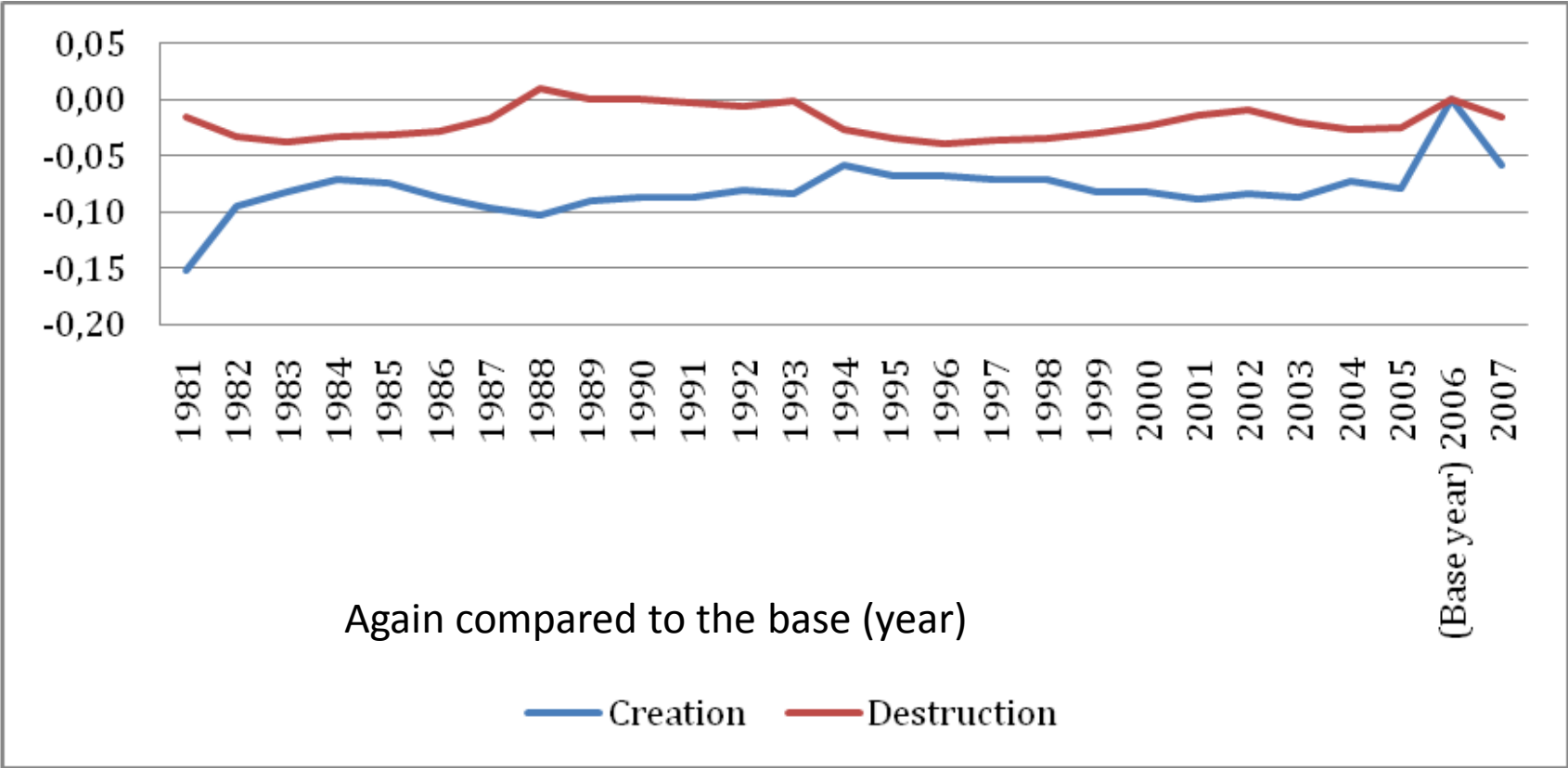


Compared to trade

# Net growth by industry

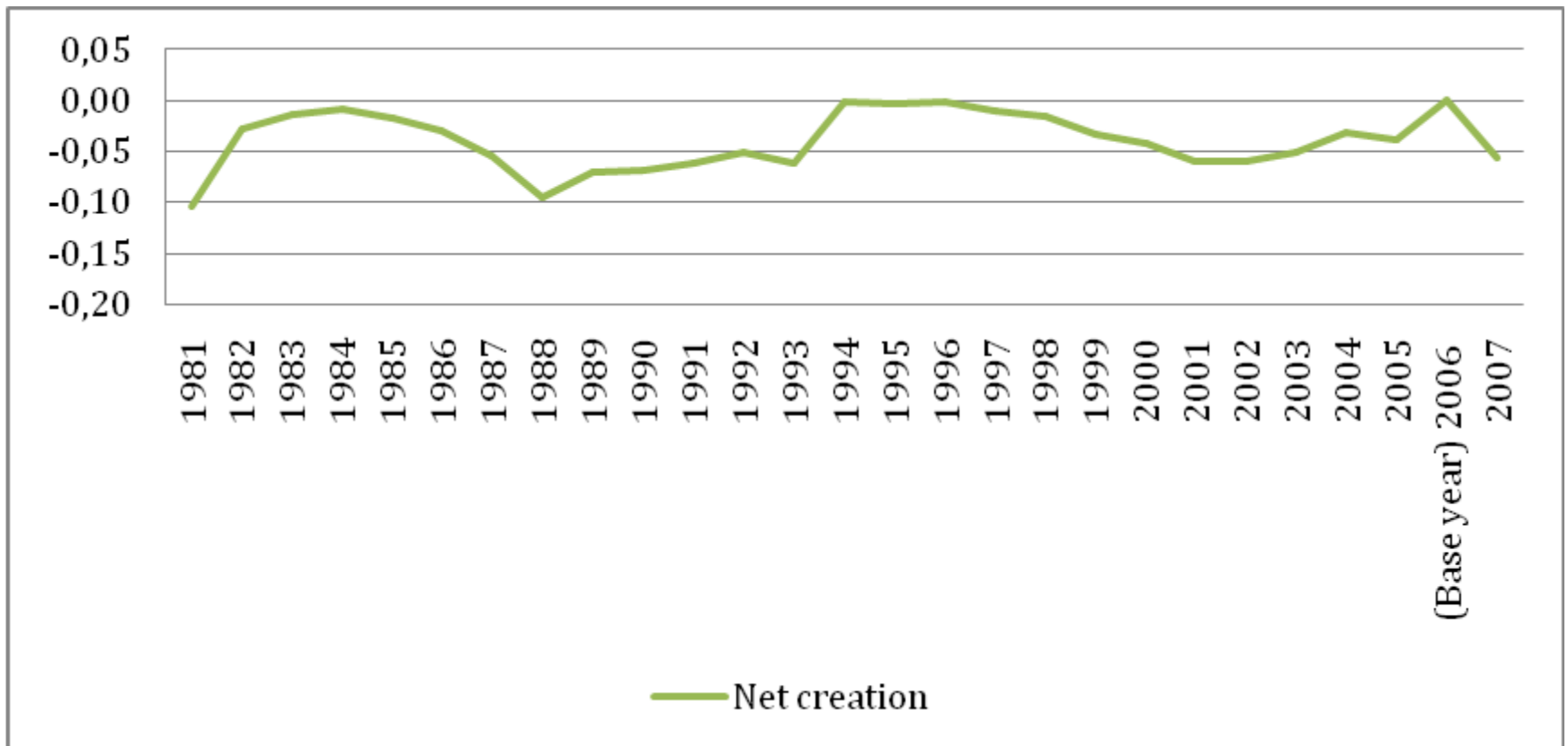


# Business cycles





# Net growth over the business cycle



# Conclusions

- Age and not size matters
- Death rate of young Danish firms is high
- Some industries are growing more than others, destroying more jobs
- Business cycles matter a lot

# Survival of new firms and spin offs

