Small vs. Large vs. Young Businesses: Secular and Cyclical Dynamics

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Remarks by

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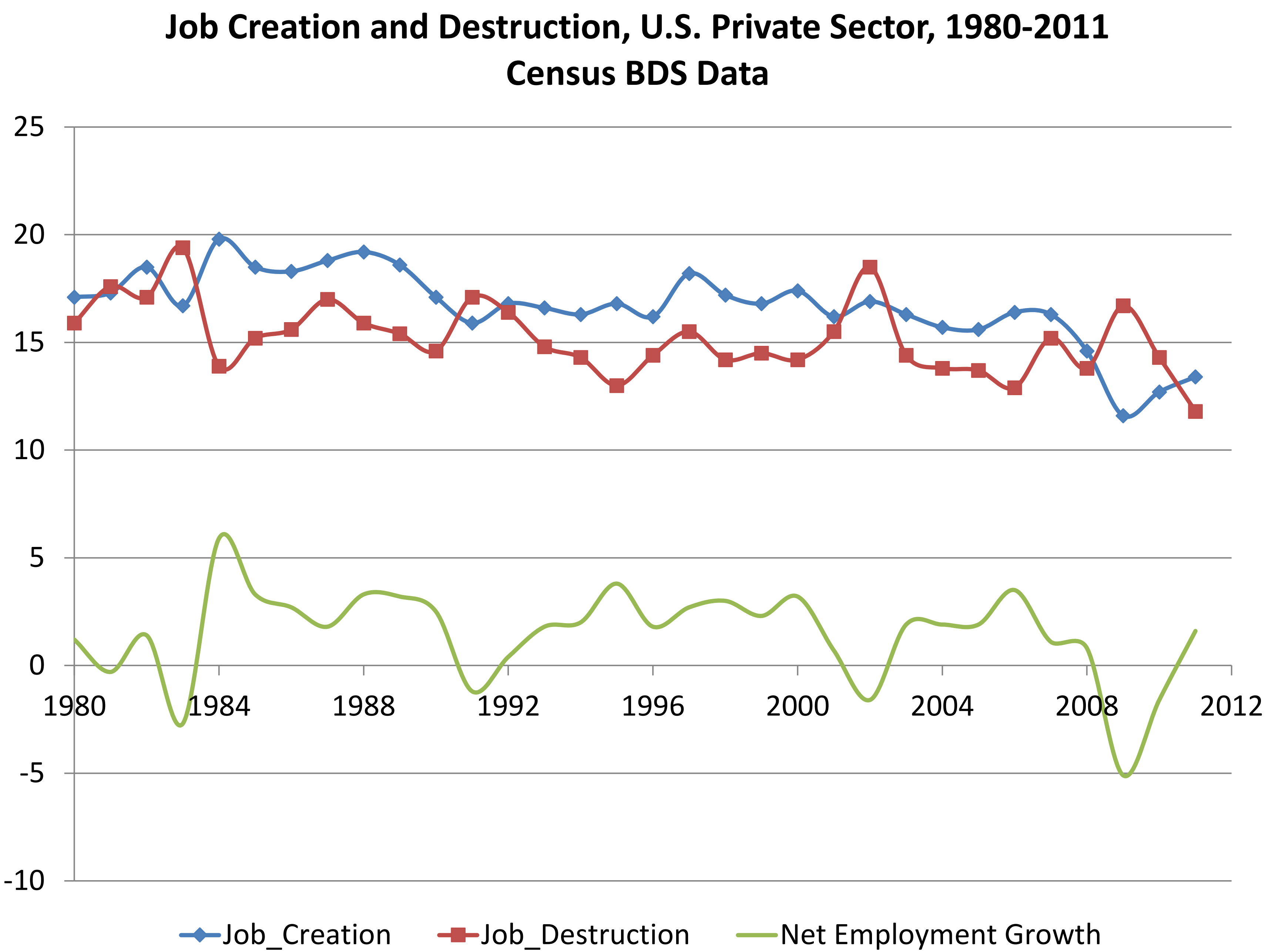
Without necessarily implying concurrence, these remarks draw heavily on joint research with Ryan Decker, Teresa Fort, Ron Jarmin and Javier Miranda. The analysis and results presented herein also do not necessarily reflect concurrence by the US Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed.

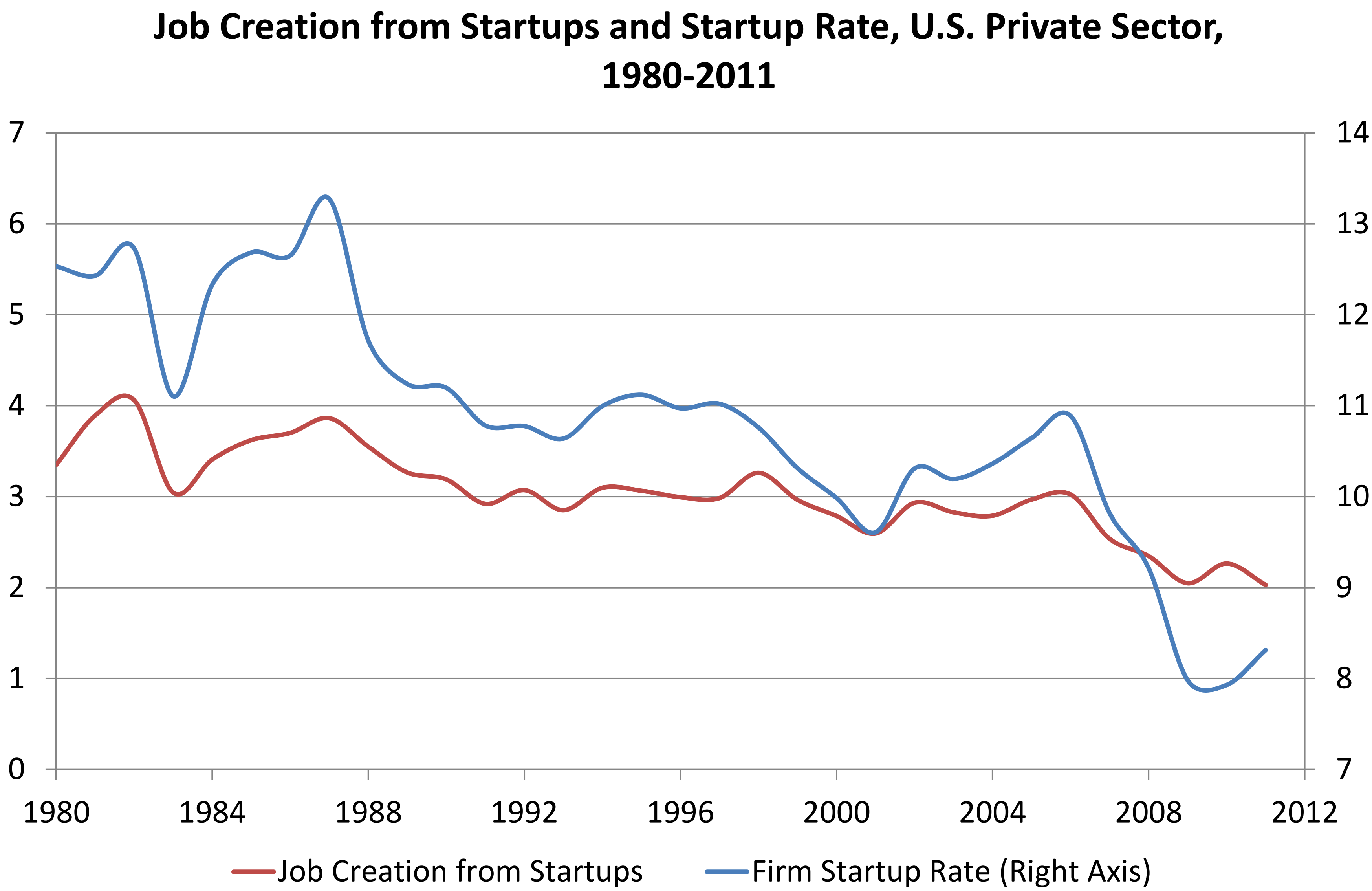
Background: Why is it important to distinguish between firm size and firm age?

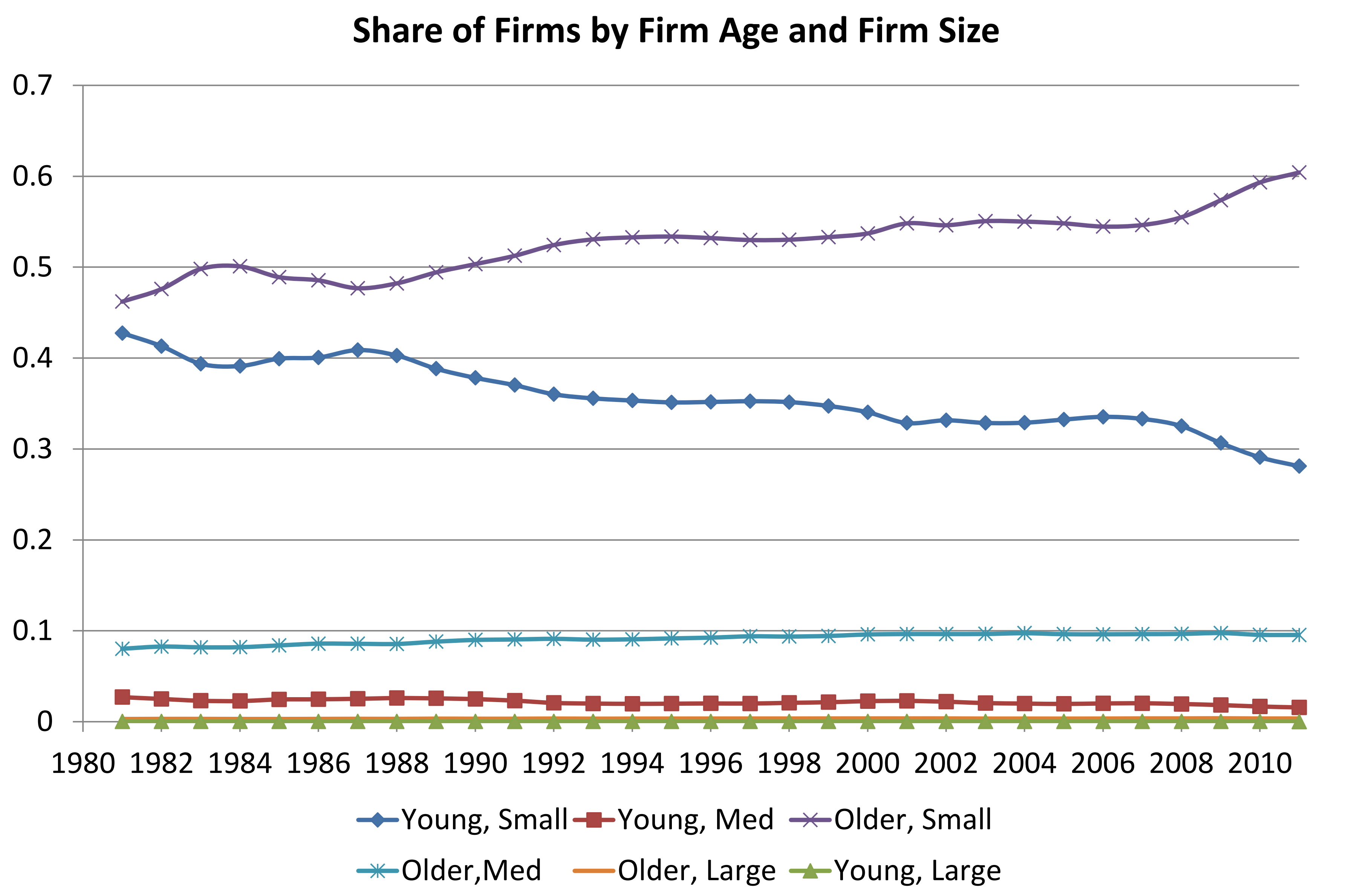
- Young firms are small (in U.S.) but there are many old, small firms.
- Young firms have high overall rates of net job creation (including contribution of startups)
- Young firms have highest dispersion and skewness in growth rates
  - High growth firms are disproportionately Young firms
- ¾ of Gross Job Creation accounted for by startups and high growth firms (that are disproportionately young).
- High growth young firms have above average productivity. Exiting young firms have low productivity. The dynamism of young firms contributes disproportionately to productivity growth.
- In contrast, Old/Small firms have negative net job creation. They disproportionately destroy jobs but don't disproportionately create jobs. Old/small surviving have lower than average productivity.

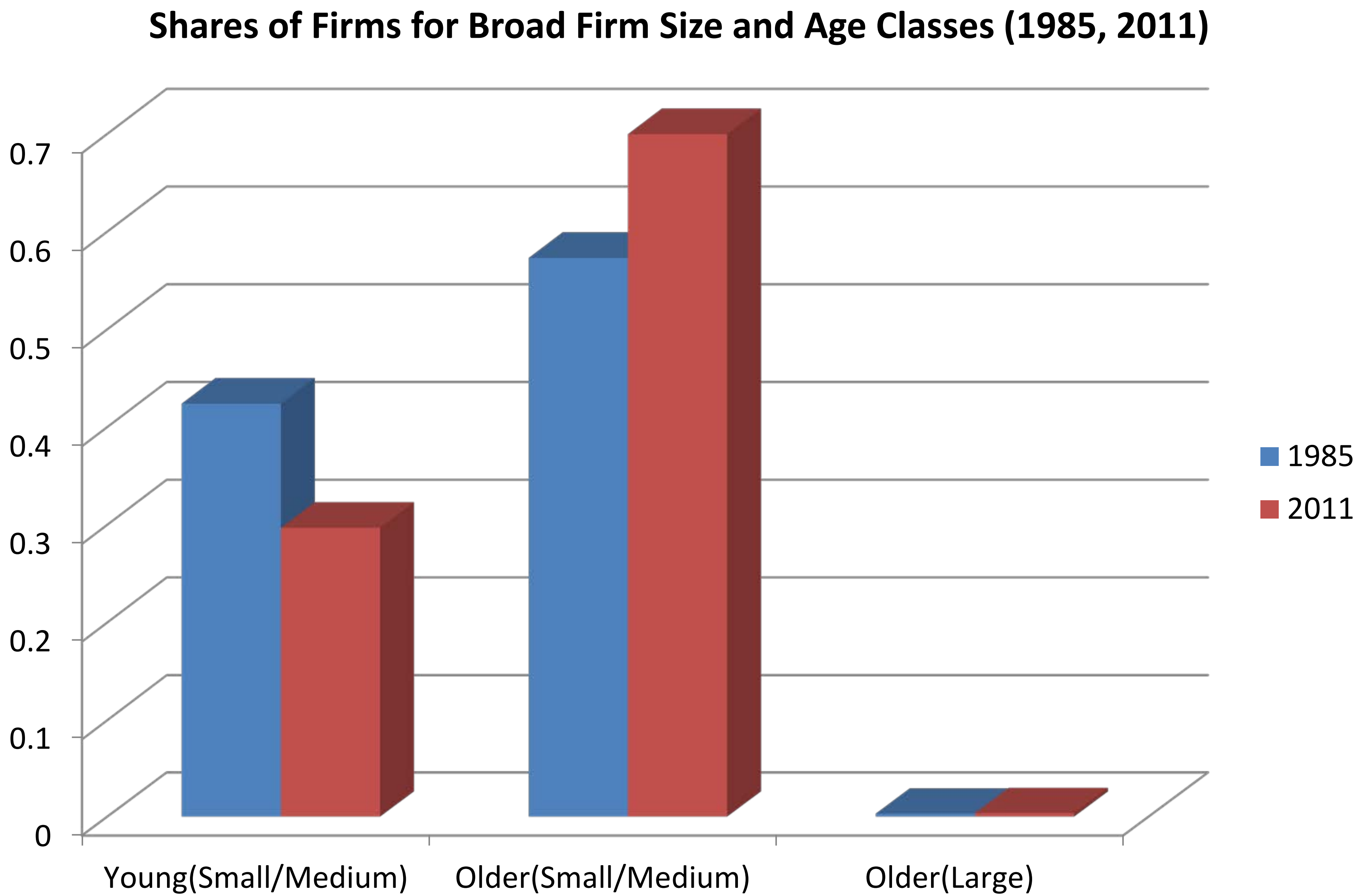
Trend and Cyclical Concerns for Young Firms?

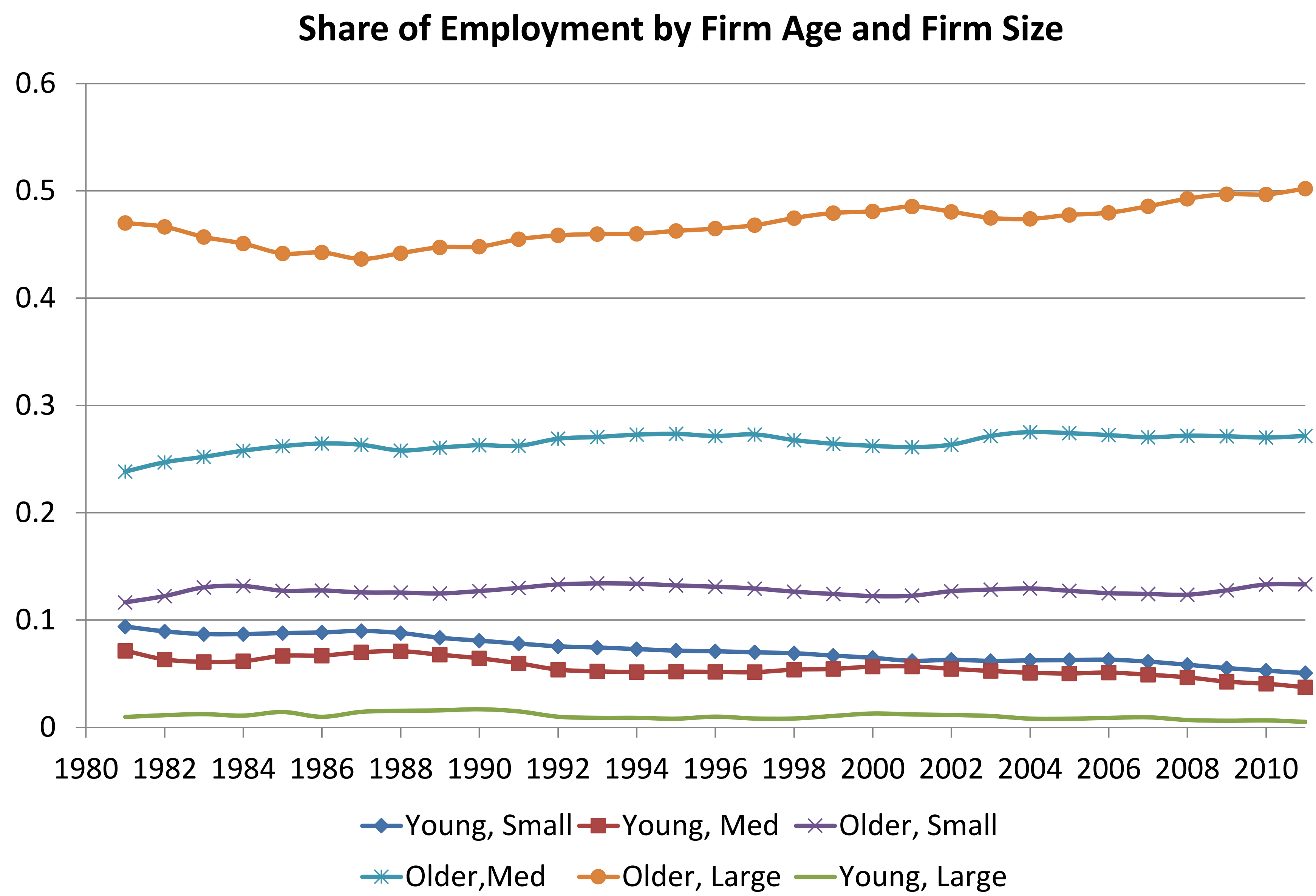
- **Secular Trends:**
  - U.S. has become less dynamic
  - Declining pace of Firm Startups
  - Shift away from young firms important contributor to the declining dynamism in U.S.
  - Why? We don't fully understand this pattern yet (Demographics, Changing Technology, Business Climate)
- **Cyclical:**
  - Young firms (which are small and medium size) hit especially hard in Great Recession.
    - Job Creation from Business Startups 3.5 million in 2006 – less than 2.5 million in 2009, 2010, and 2011. Number of startups fell from 570K to under 400K.
  - Why? Collapse of Housing Prices an Important Contributor


Job Creation and Destruction, U.S. Private Sector, 1980-2011
Census BDS Data
25
20
15
10
5
0
-5
-10
1980
1984
1988
1992
1996
2000
2004
2008
2012
Job_Creation
Job_Destruction
Net Employment Growth


Job Creation from Startups and Startup Rate, U.S. Private Sector, 1980-2011
7
6
5
4
3
2
1
0
14
13
12
11
10
9
8
7
1980
1984
1988
1992
1996
2000
2004
2008
2012
Job Creation from Startups
Firm Startup Rate (Right Axis)

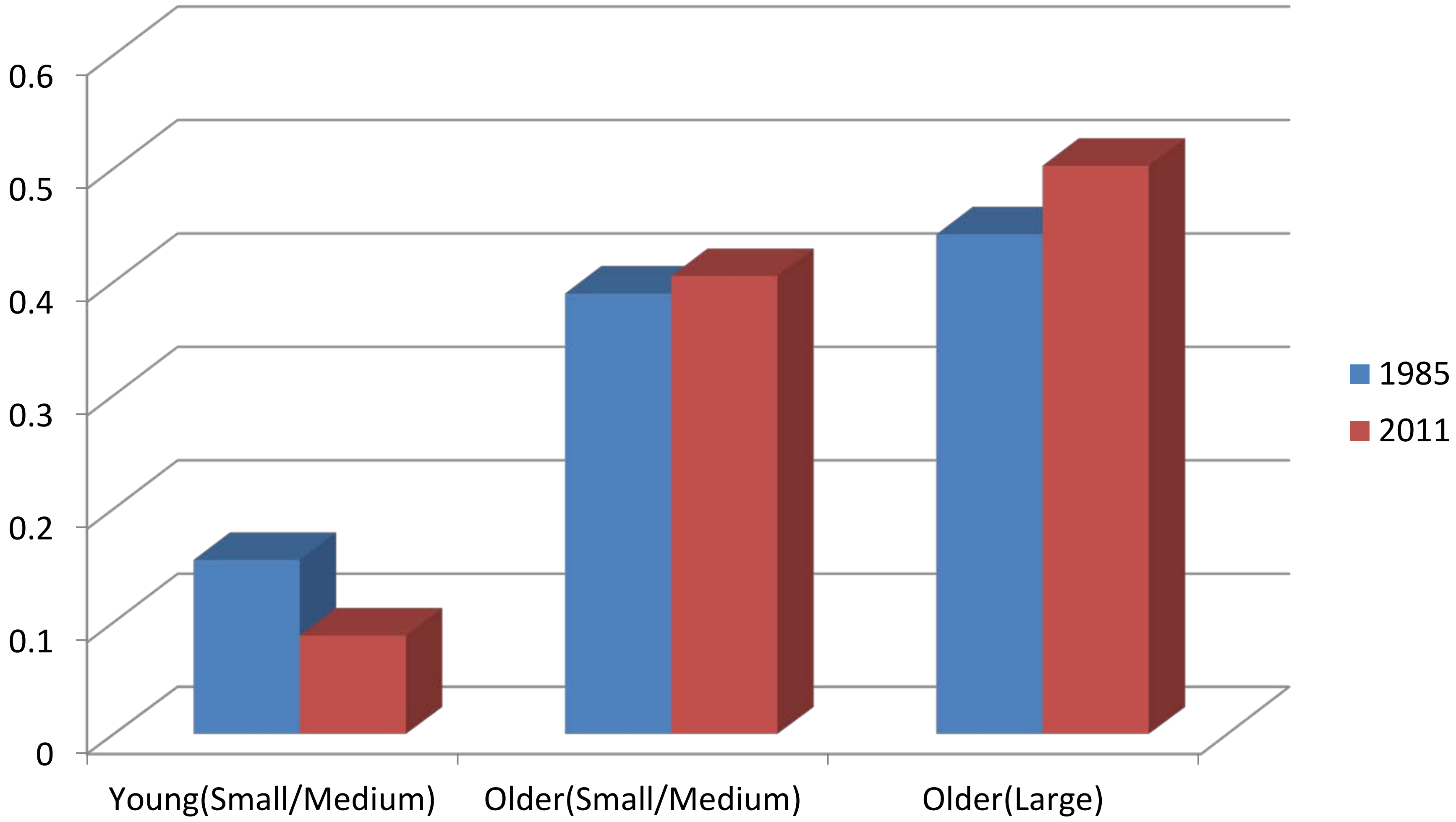

Share of Firms by Firm Age and Firm Size
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
Young, Small
Young, Med
Older, Small
Older,Med
Older, Large
Young, Large

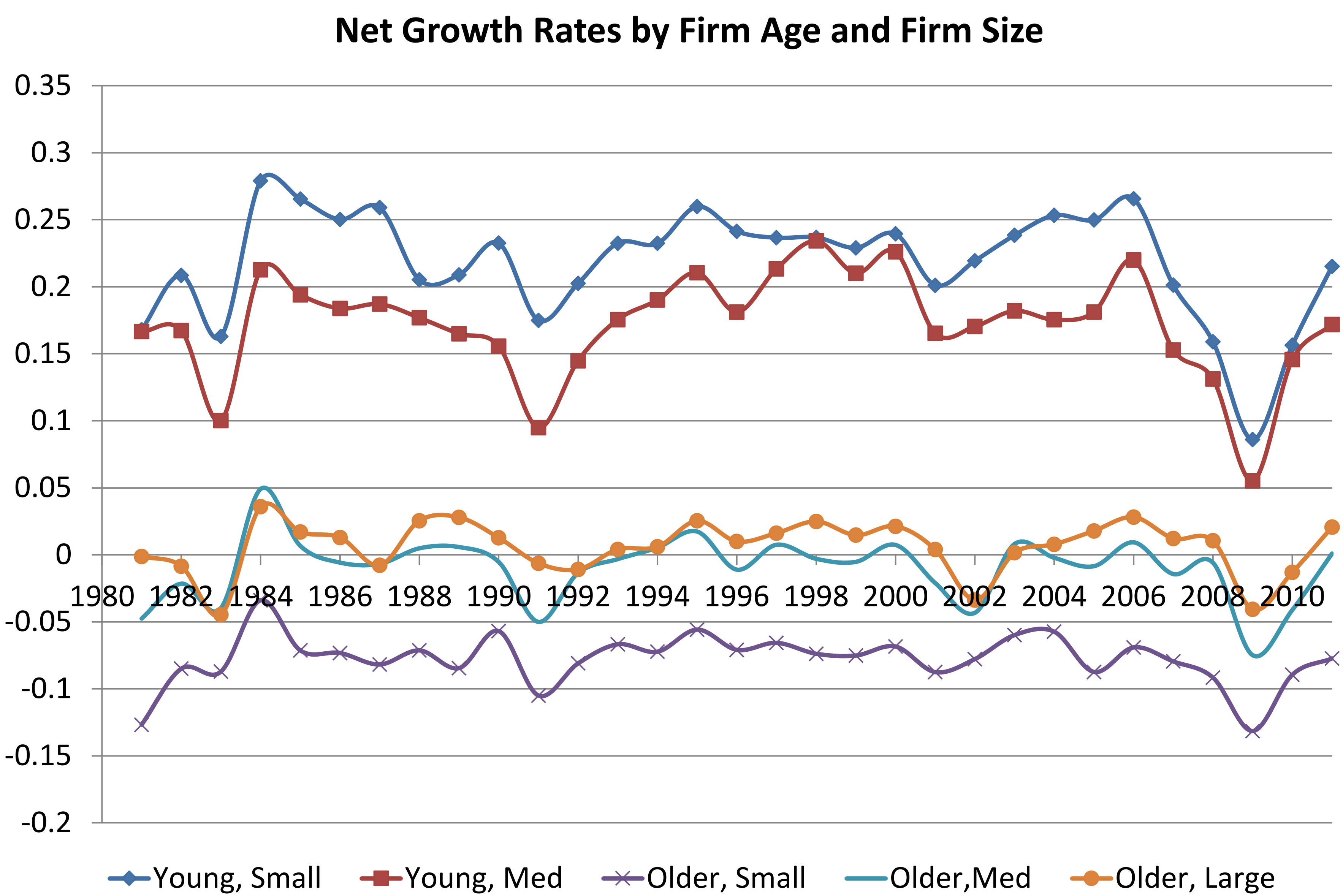

Shares of Firms for Broad Firm Size and Age Classes (1985, 2011)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Young(Small/Medium)
Older(Small/Medium)
Older(Large)
1985
2011



Share of Employment by Firm Age and Firm Size
0.6
0.5
0.4
0.3
0.2
0.1
0
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010
Young, Small
Young, Med
Older, Small
Older,Med
Older, Large
Young, Large

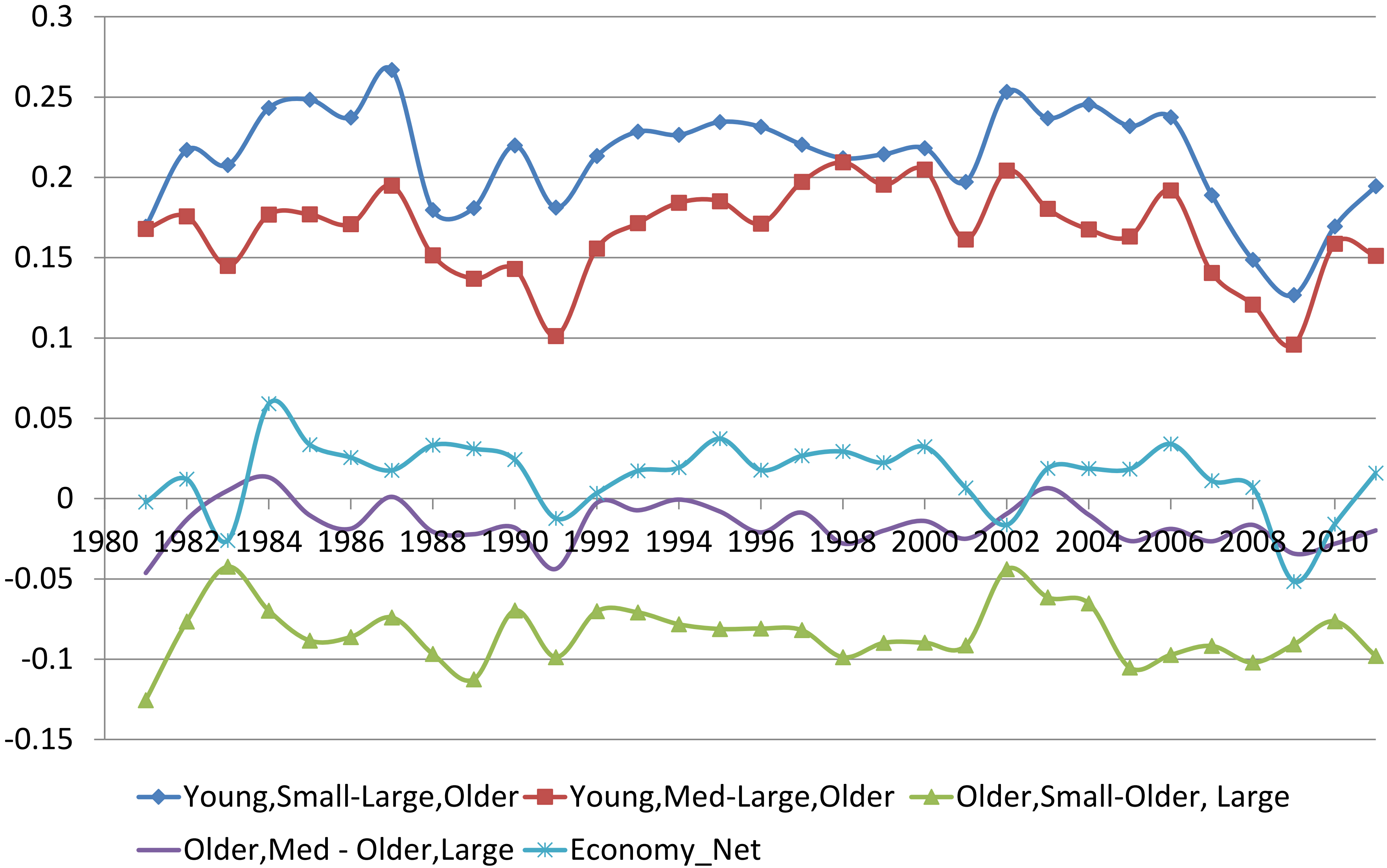
Shares of Employment for Broad Firm Size and Age Classes (1985, 2011)

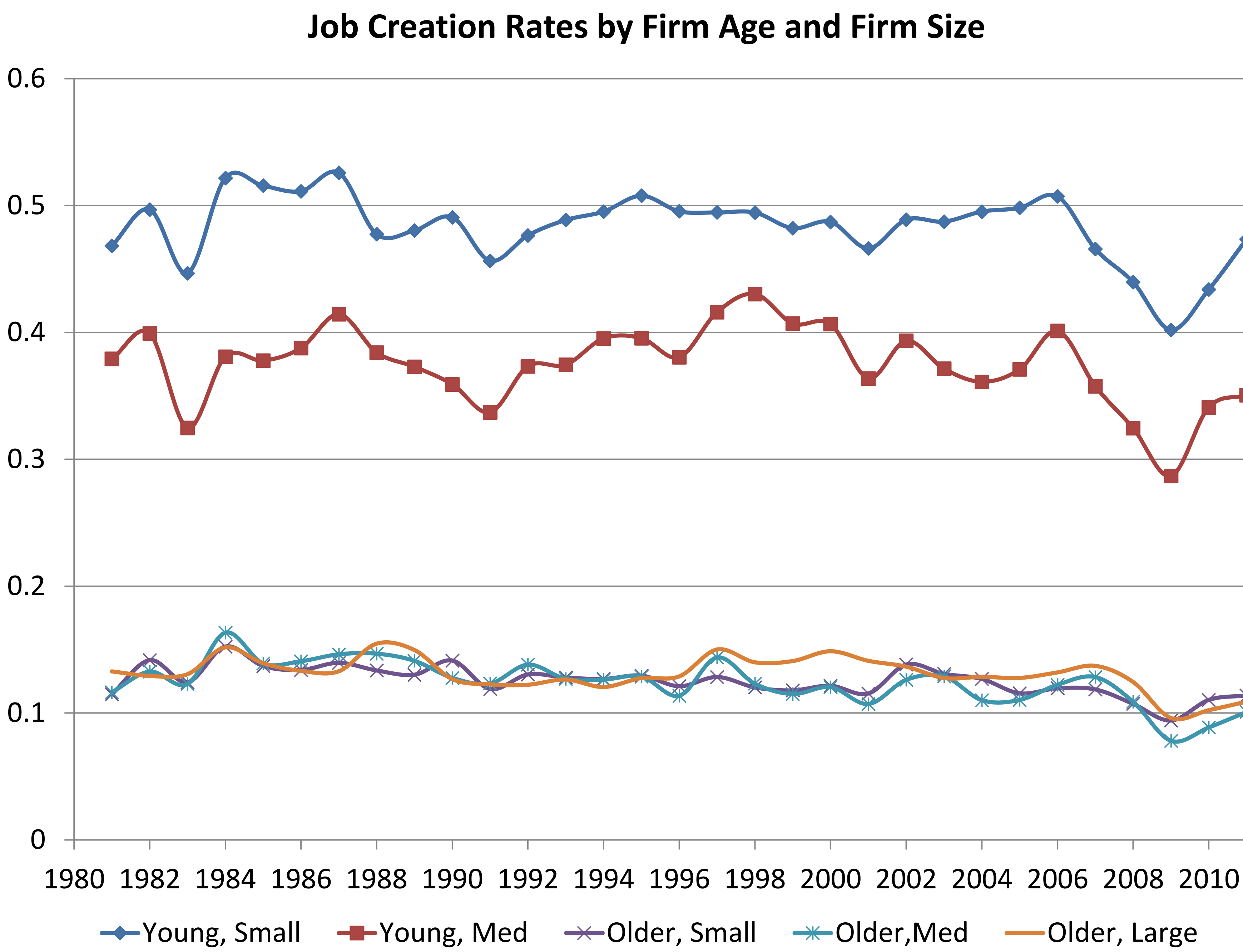


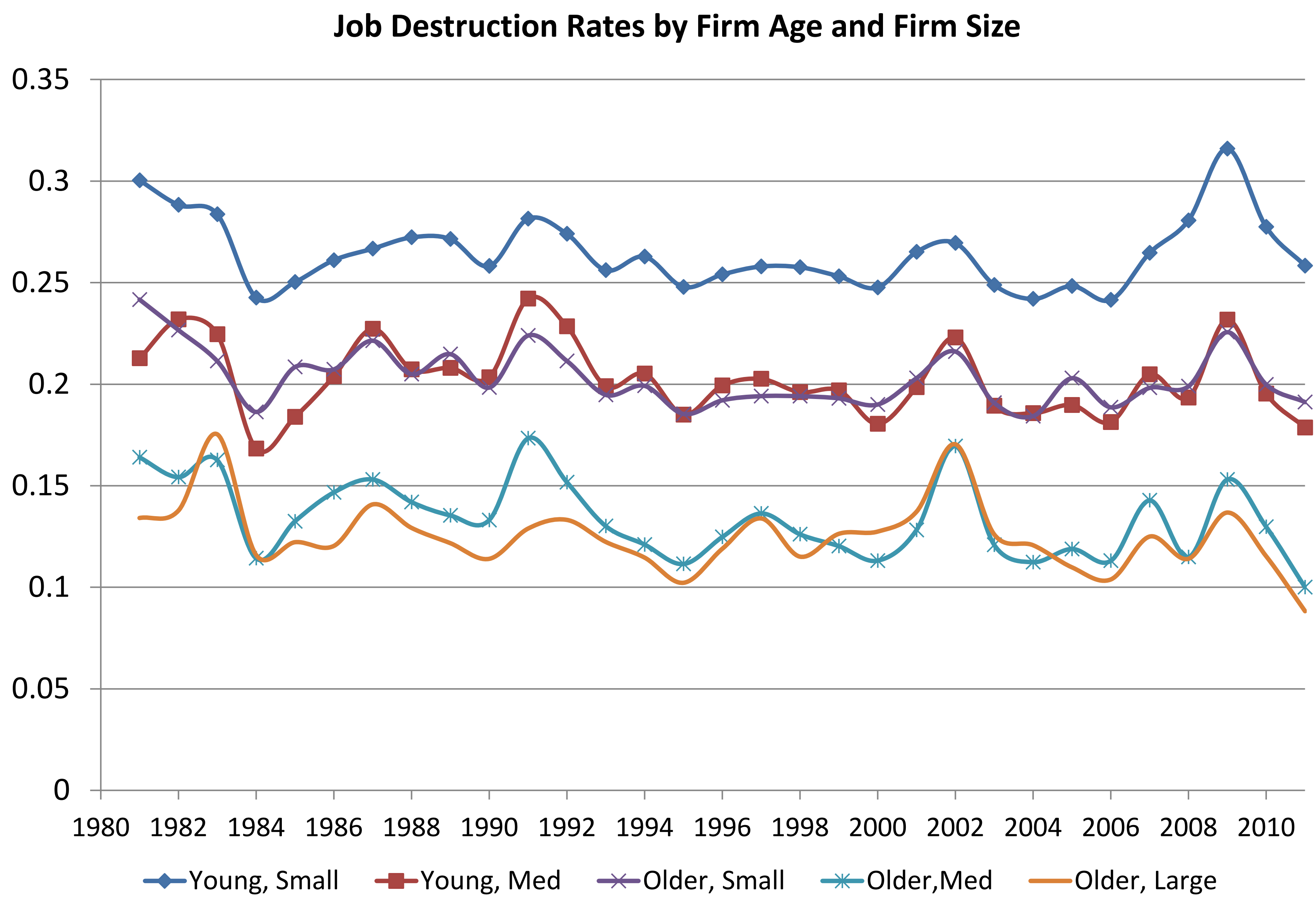


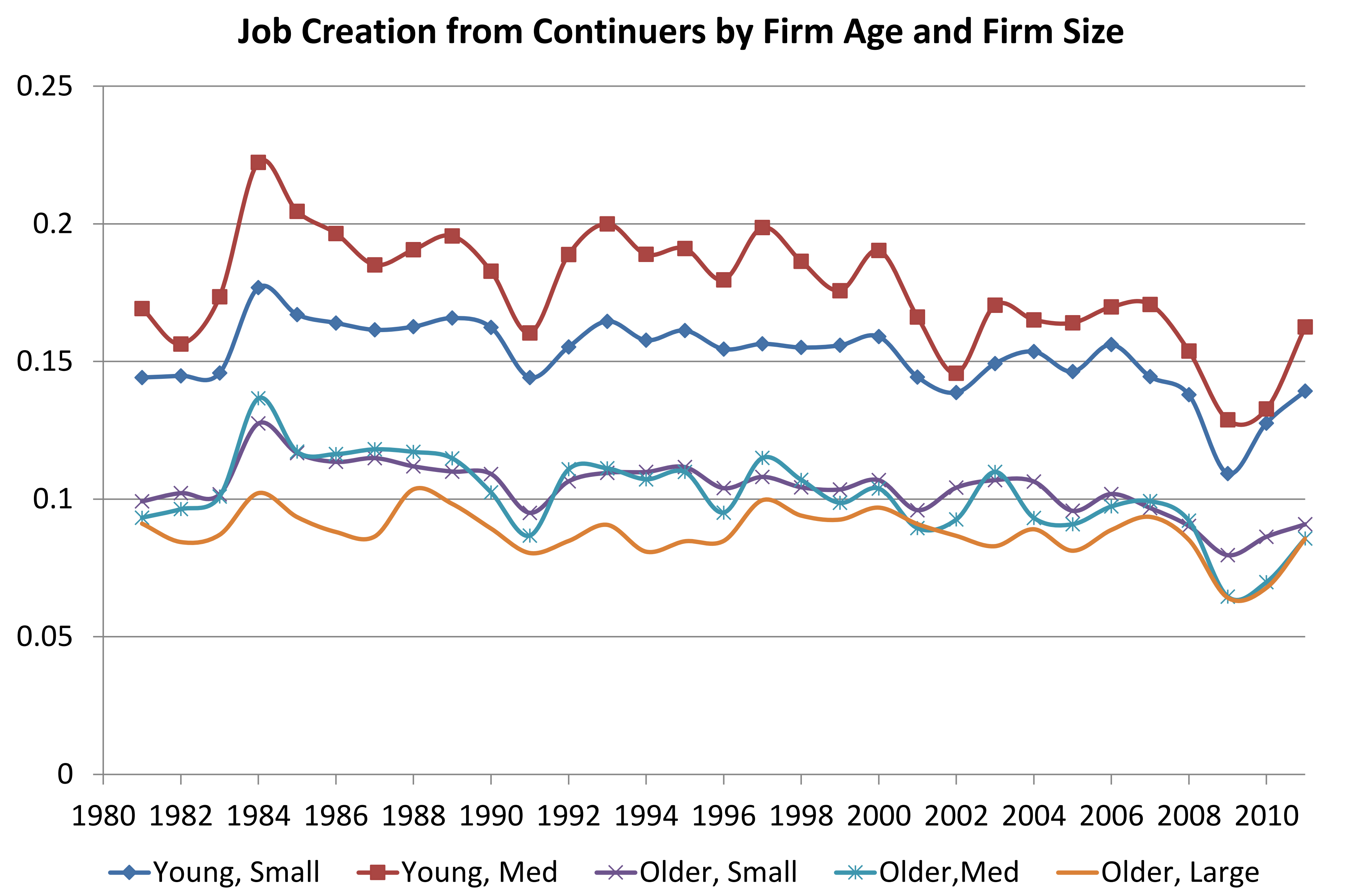
Net Growth Rates by Firm Age and Firm Size
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
Young, Small
Young, Med
Older, Small
Older,Med
Older, Large

Differences in Net Growth Rates

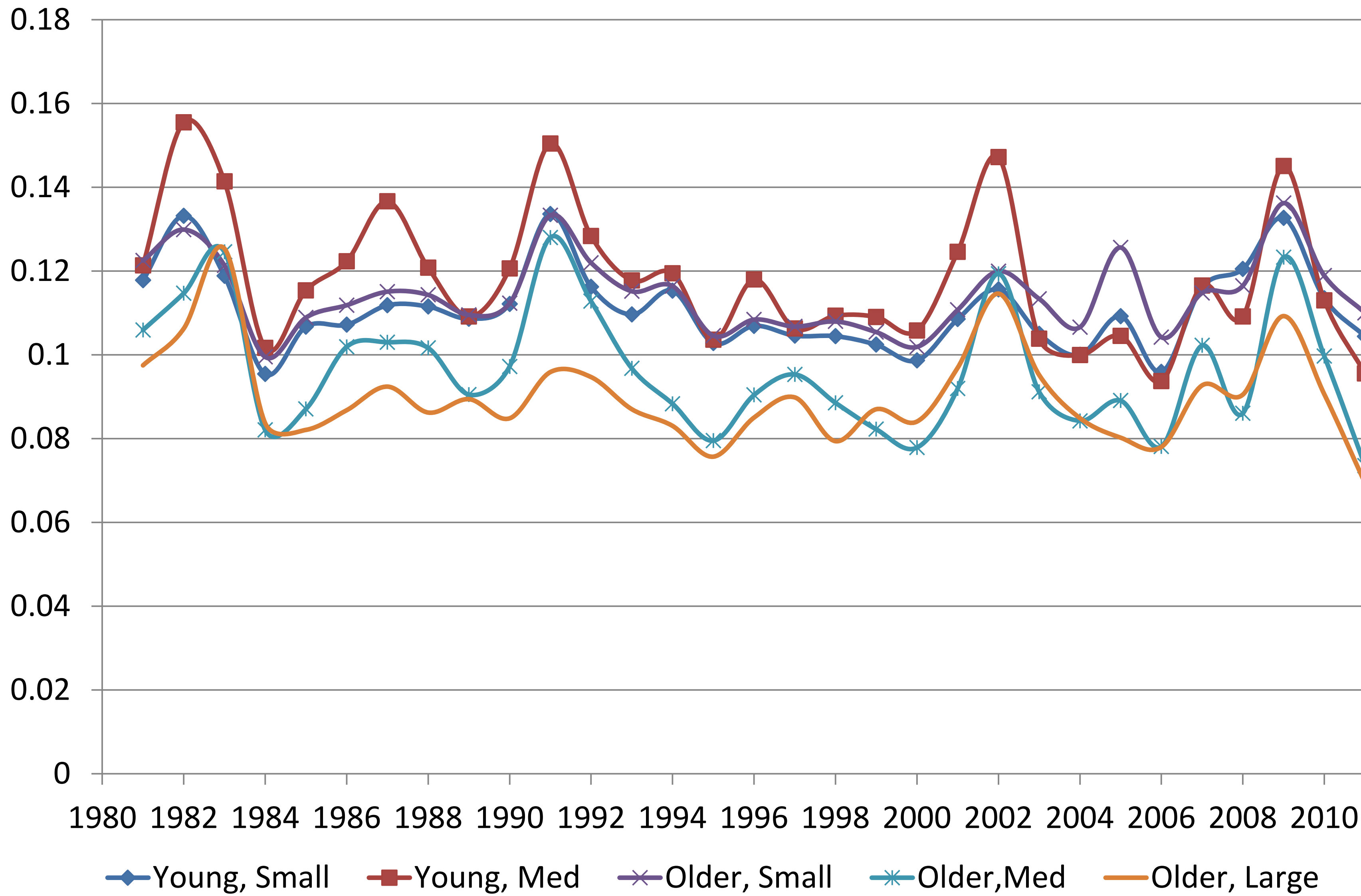


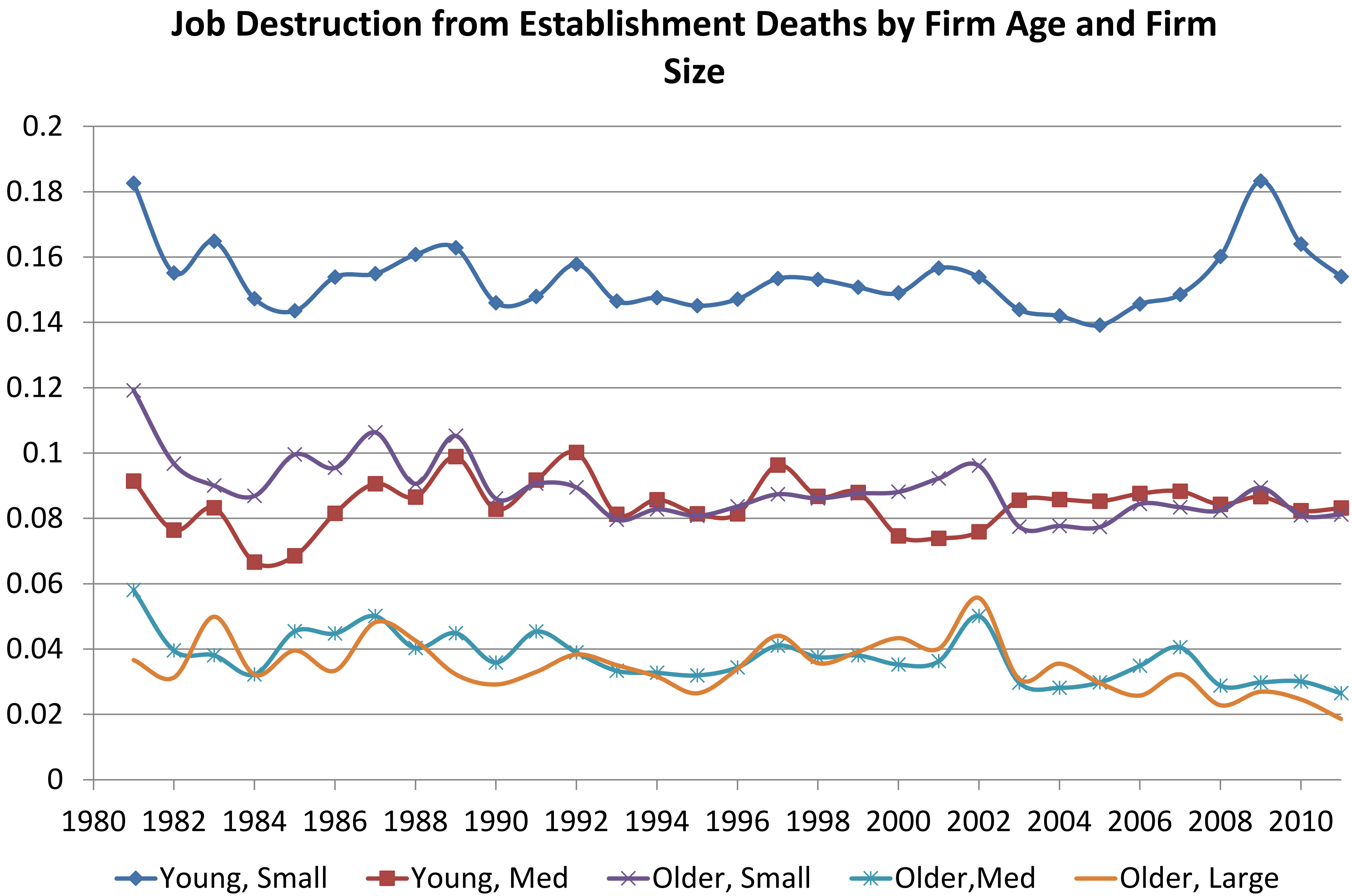

Job Creation Rates by Firm Age and Firm Size
0.6
0.5
0.4
0.3
0.2
0.1
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
Young, Small
Young, Med
Older, Small
Older,Med
Older, Large


Job Destruction Rates by Firm Age and Firm Size
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
Young, Small
Young, Med
Older, Small
Older,Med
Older, Large

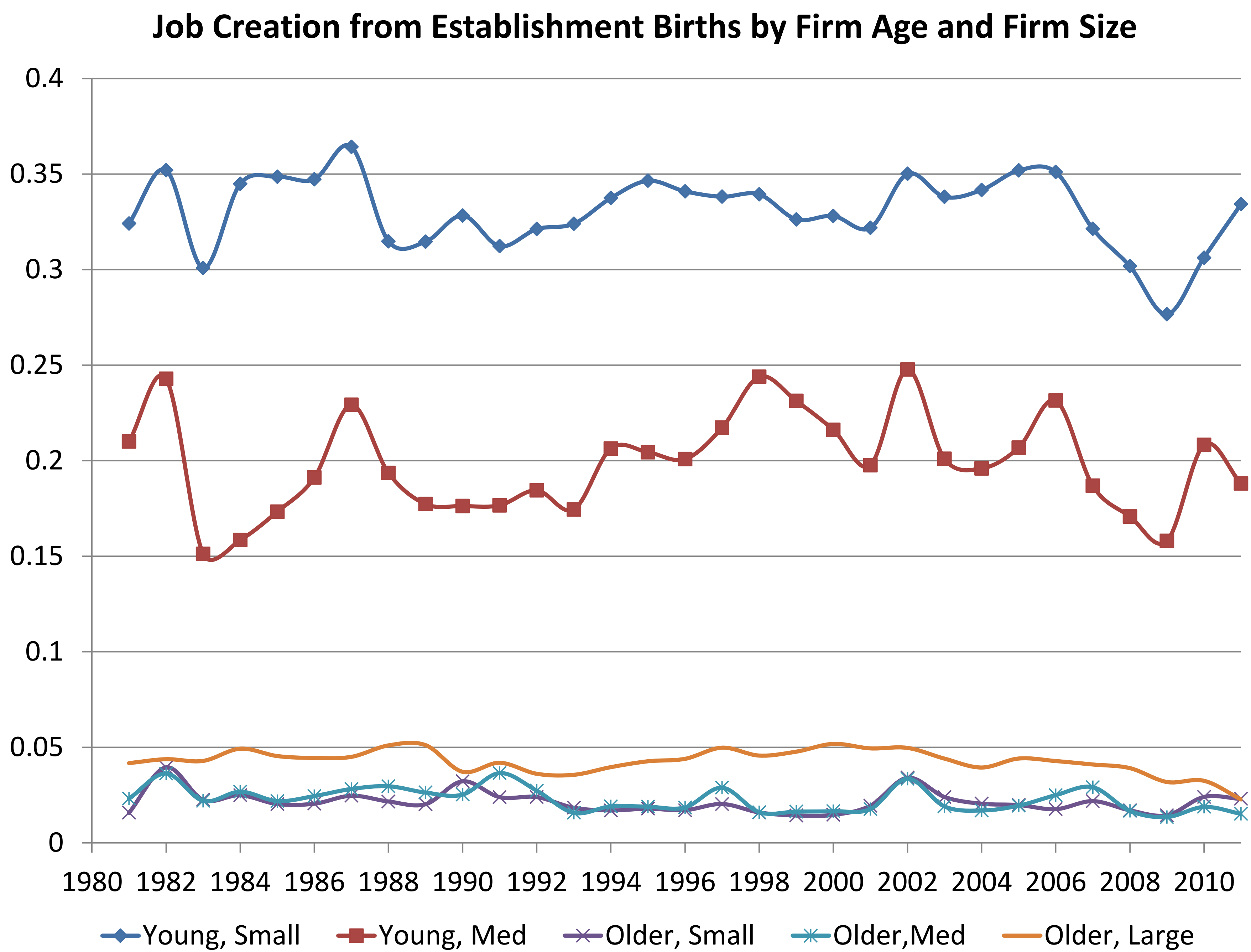

Job Creation from Continuers by Firm Age and Firm Size
0.25
0.2
0.15
0.1
0.05
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
Young, Small
Young, Med
Older, Small
Older,Med
Older, Large

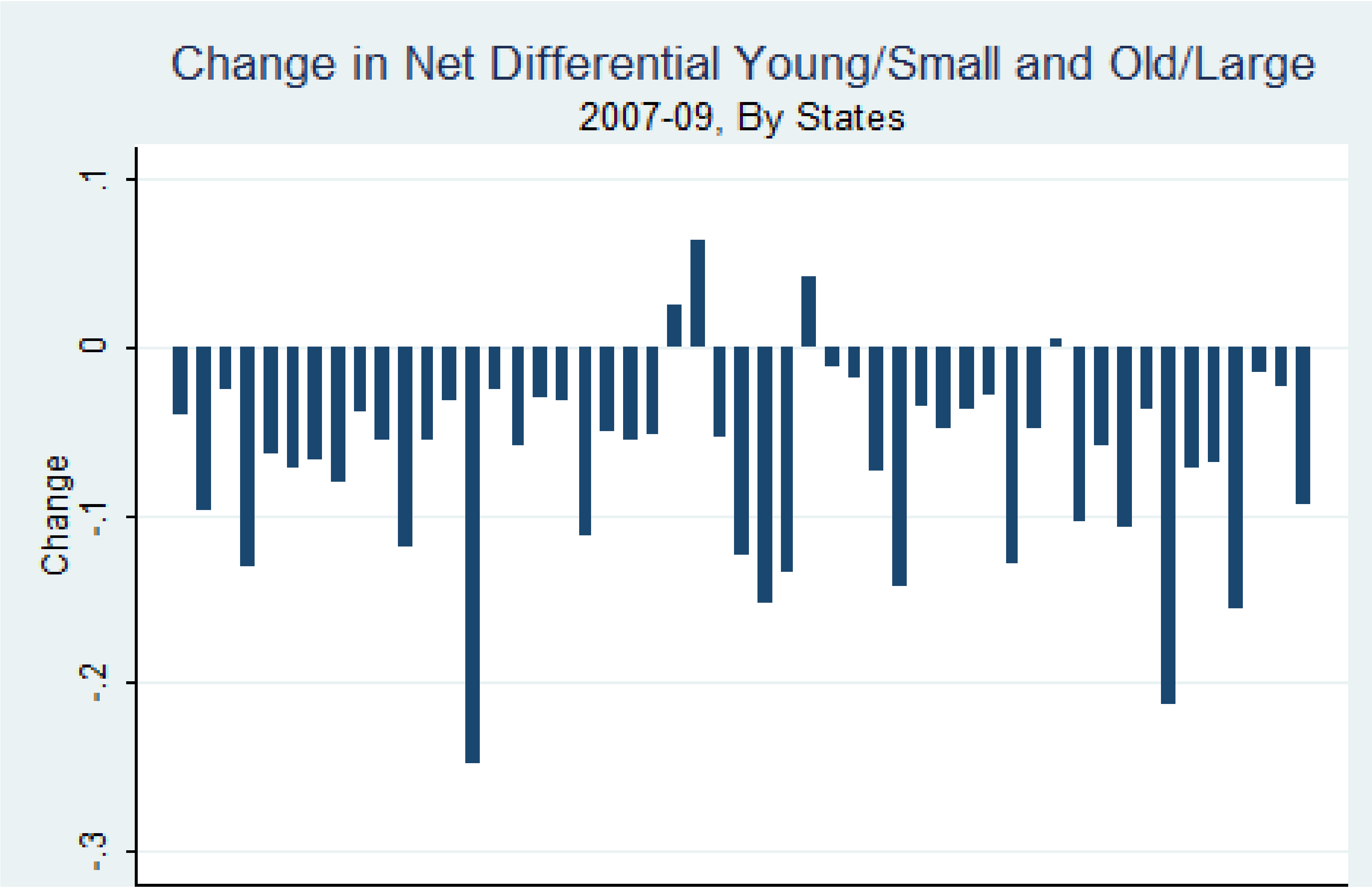
Job Destruction from Continuers by Firm Age and Firm Size

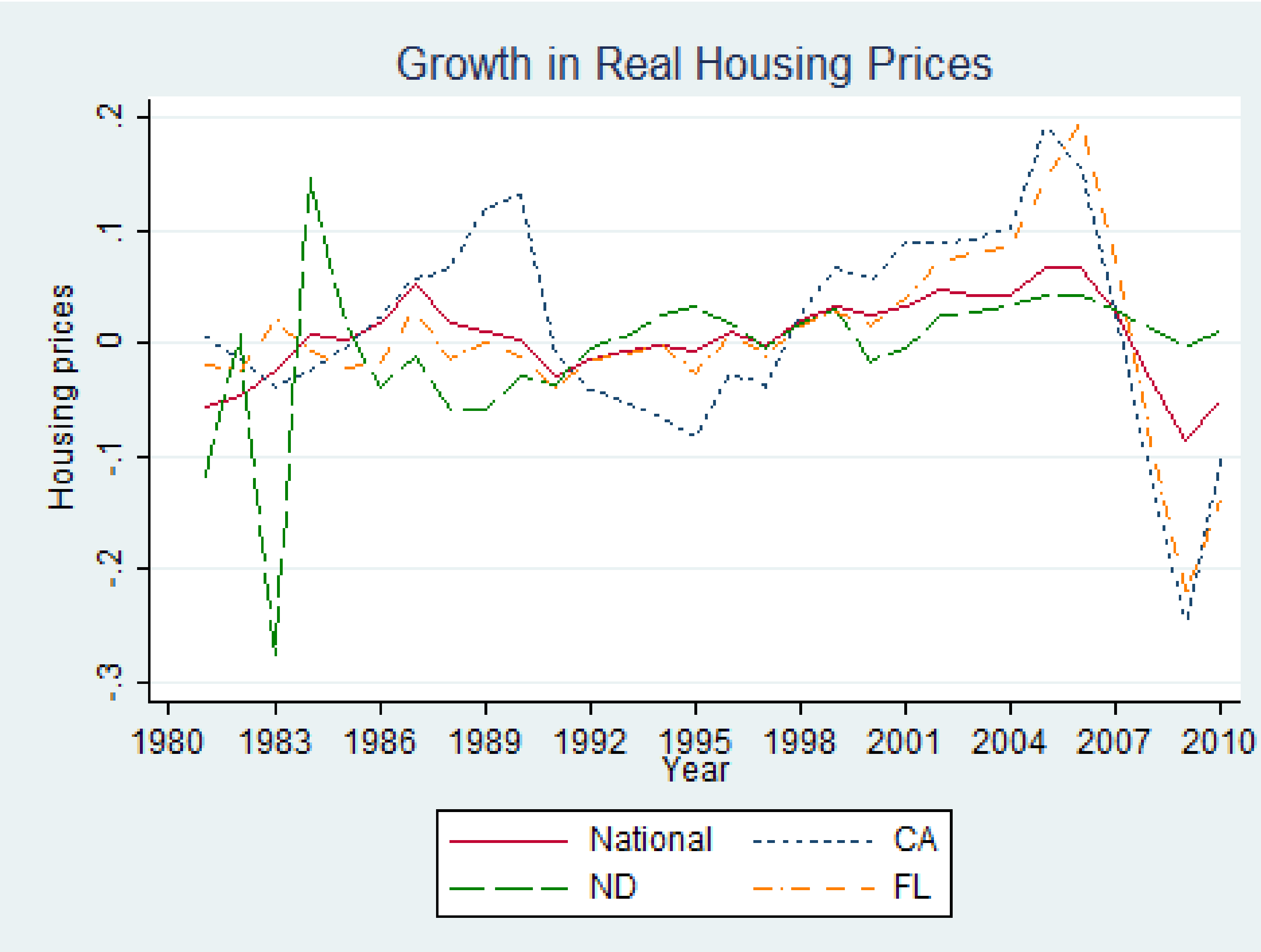




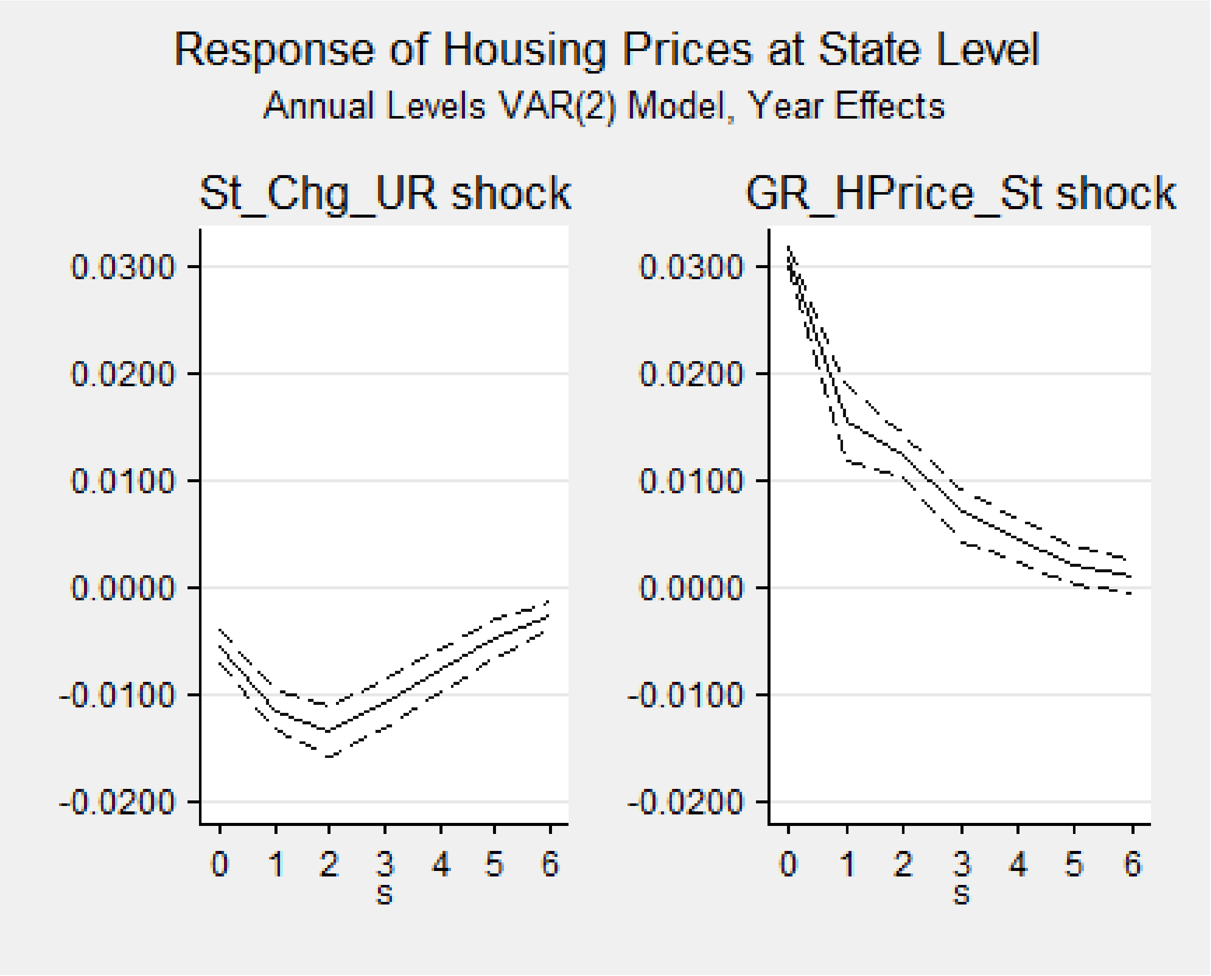
Job Destruction from Establishment Deaths by Firm Age and Firm Size
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
Young, Small
Young, Med
Older, Small
Older,Med
Older, Large


Job Creation from Establishment Births by Firm Age and Firm Size
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
Young, Small
Young, Med
Older, Small
Older,Med
Older, Large

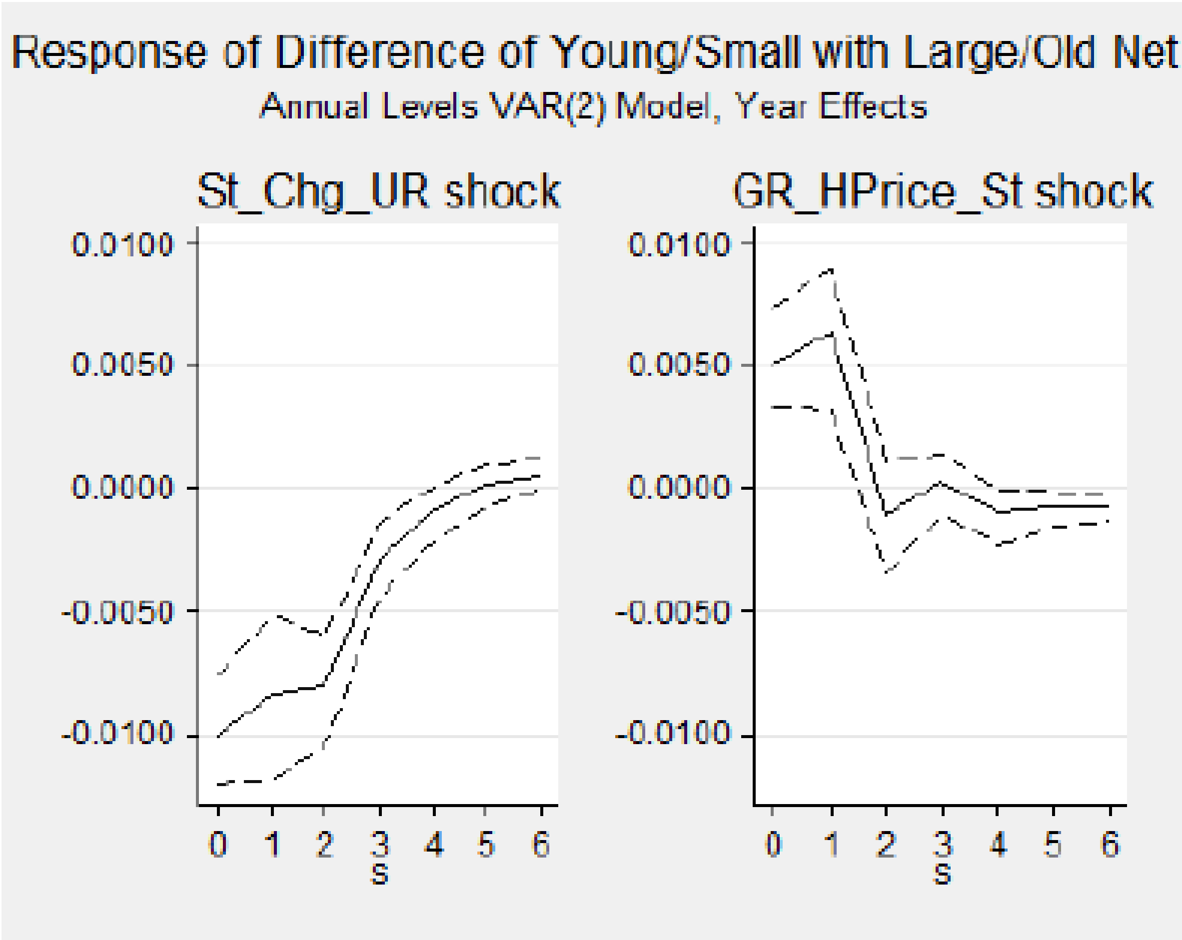

Change in Net Differential Young/Small and Old/Large
2007-09, By States
Change
.1
0
-.1
-.2
-.3


Growth in Real Housing Prices
Housing prices
.2
.1
0
-.1
-.2
-.3
1980
1983
1986
1989
1992
1995
1998
2001
2004
2007
2010
Year
National
CA
ND
FL

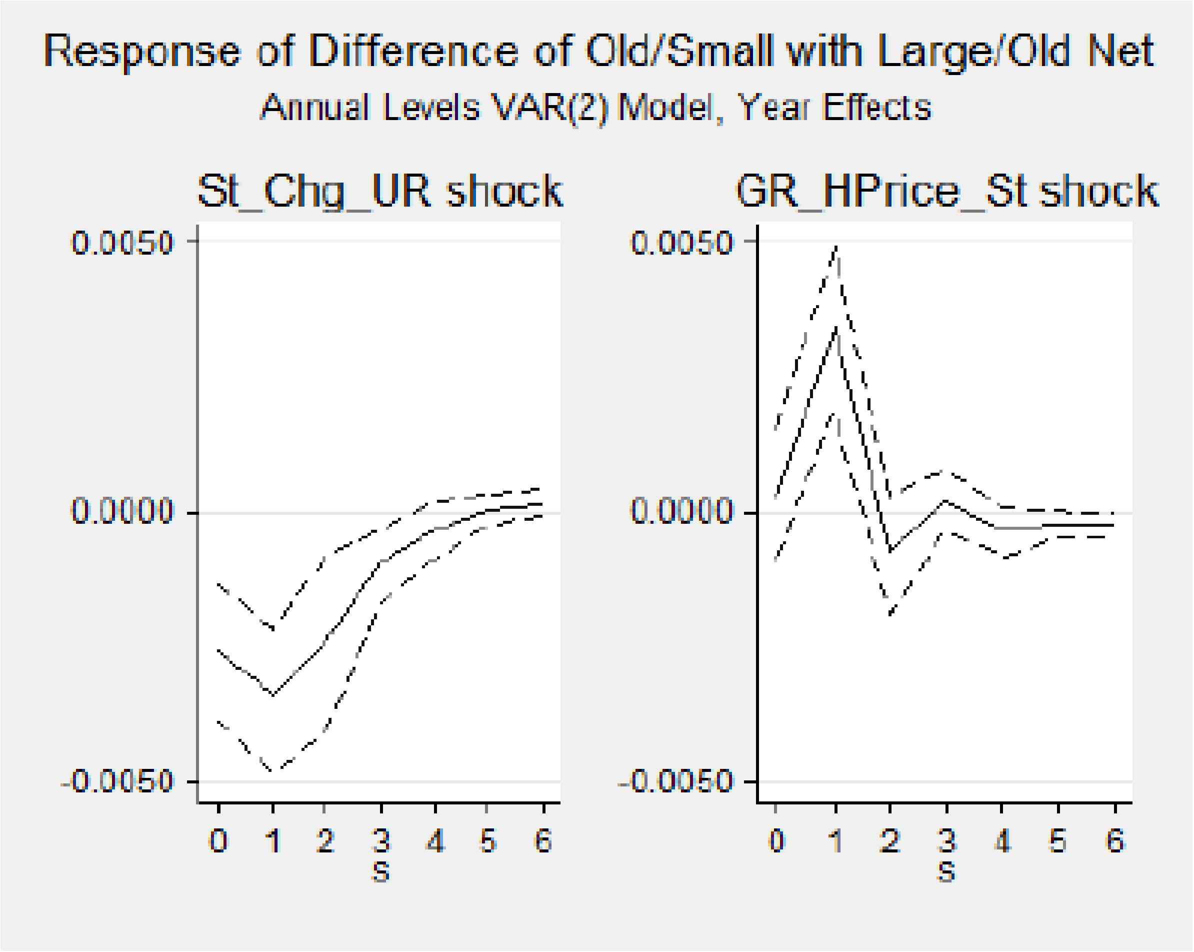
State-Specific Housing Price Dynamics



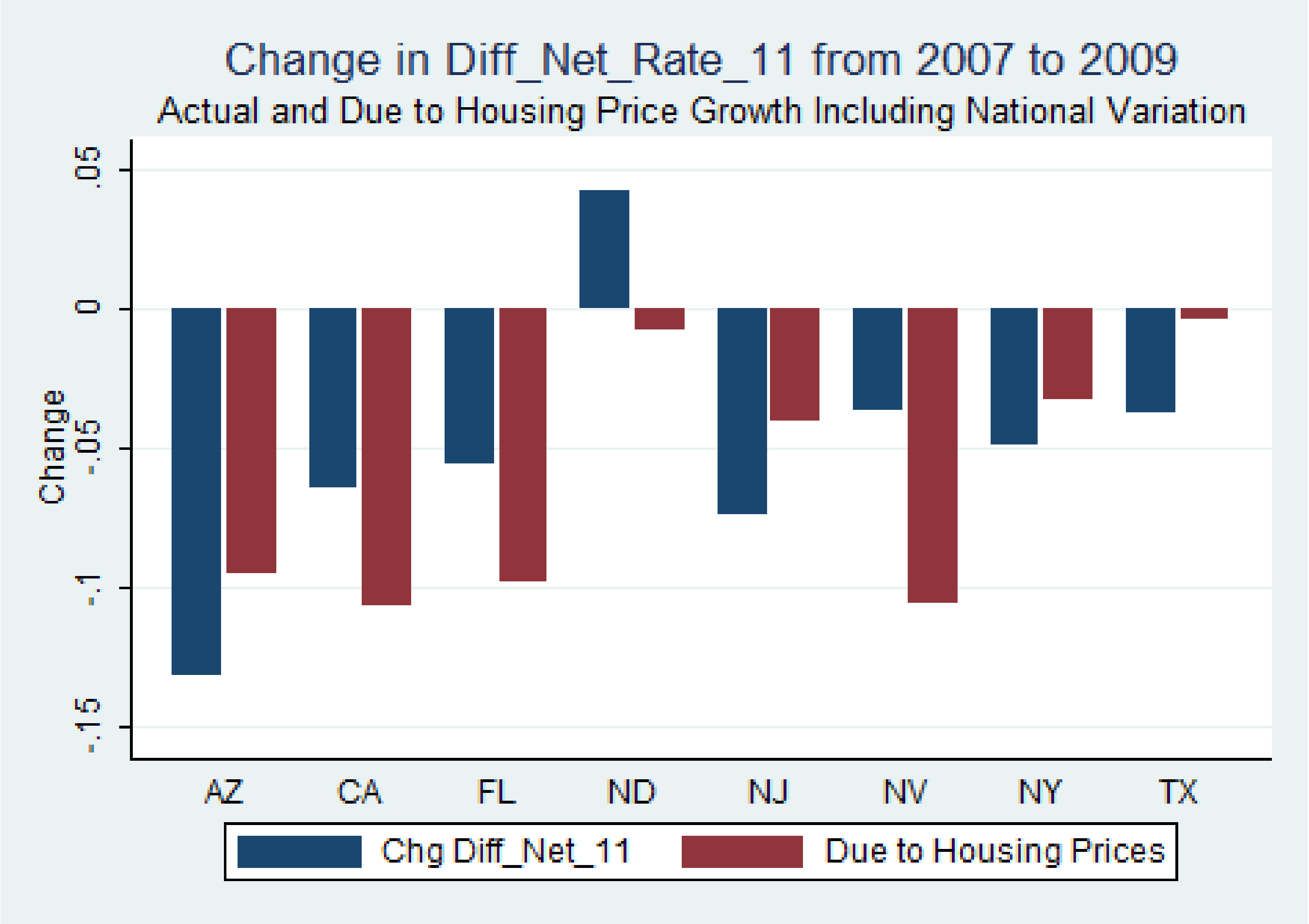
Impact on Net Growth Young/Small relative to Large/Old for State-Specific Shocks



Impact on Net Growth Old/Small relative to Large/Old for State-Specific Shocks



Large Decline in Net Differential Between Young/Small and Older/Large – Housing Prices Are Important Contributor



Alternative Explanations

- All results point to young/small being more vulnerable population. But why?
- The responsiveness of young/small to local cyclical shocks
  - Customer base/Reputation for more established firms
  - Product differentiation (substitution to low price Big Box stores in recessions? Wal-Mart)
  - Young/small firms inherently more tied to local demand (less tradeable or limited geographic reach)
  - Face greater credit constraints
- The responsiveness of young/small to local housing price shocks
  - Home equity financing of young/small businesses
  - Consumption/Household Balance Sheet Channel
  - Housing-sensitive sectors: Construction and FIRE

Final Thoughts

- U.S. Recovery Obviously Slow
- Why?
  - Interaction of secular and cyclical factors associated with Young/Small businesses?
  - U.S. less dynamic (lower pace of business dynamism driven in part by lower share of young/small firms)
  - Young/Small firms hit especially hard in Great Recession