Demographic Origins of the Decline in Labor’s Share
Glover and Short

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In this section, we contrast the behavior of this published series with several alternative measures of the labor share. Our findings indicate that the headline measure has overstated the decline in the labor share because of the way self-employment income is imputed in the construction of the headline number.

### I.A. Evolution of the Headline Labor Share Measure

The evolution of the headline labor share measure during the postwar period is depicted by the black line in figure 1, and some related summary statistics are provided in table 1. Four observations are apparent from these. First, the labor share exhibited no obvious trend during the first four decades of the postwar era. From 1948 through 1987 it hovered around a mean of 63.6 percent. Second, one can discern a trend decline in the labor share since the late 1980s. Third, the share spiked in the late 1990s. Percent

![Figure 1. Labor Share, Payroll Share, and Replicated Labor Share in U.S. Nonfarm Business Sector, 1948-2013](image)

Source: Elsby, Hobinn, Sahin 2013
Many theories have been proposed

  - Capital and labor are complements: Oberfield/Raval (2014)
- **Housing** is behind rising capital share: Rognlie (2015)
- **Intangibles** become more important: Eisfeldt/Falato/Zhang (2018)
- **Composition/concentration**: Autor et al. (2018), Kehrig/Vincent (2018)
- **Globalization**: Elsby et al. (2013)
- **Taxation** matters: Kaymak/Schott (2018)
- Etc.
- Links two strong structural trends: fall in labor share vs. ageing

- Seems like a natural link to investigate
  - Trends line up quite well
  - Ageing and LS decline are global phenomena

- Personally, I find it very appealing and I want to believe!
  - A pure structural mechanism
  - Does not rely on endogenous margins: prices, concentration, etc.
  - Supply-side story that does not focus on goods, but labor instead
Basic example (C-D, young and old) is very intuitive

Age-dependent wedges: \( w_{a,t} = \frac{1}{\omega_a} MPN_{a,t} \)

LS is an average of wedges, w/ effective labor supply as weights

\[
LS_t = \frac{E_t}{Y_t} = \alpha \left[ \frac{1}{\omega_{young}} \frac{z_{young,t} n_{young,t}}{\sum z_{i,t} n_{i,t}} + \frac{1}{\omega_{old}} \frac{z_{old,t} n_{old,t}}{\sum z_{i,t} n_{i,t}} \right]
\]

Notes:
1. This is ultimately a composition story
2. Wedges are time-invariant; firm concentration theories are about increases in \( \omega \)
Intuition

- Rewrite as relationship between LS, earning shares and wedges

\[ LS_t = \frac{E_t}{Y_t} = \frac{\alpha}{\omega_{young} + (\omega_{old} - \omega_{young}) \frac{E_{old,t}}{E_t}} \]

- Empirical strategy: Exploit within-sector $\Delta LS^{-1}$ and $\Delta E_{old,t}/E_t$ to implicitly recover $\omega_{young}$ and $\omega_{old} - \omega_{young}$

\[ \Delta LS_{s,t}^{-1} = \beta_0 + \beta_1 \Delta EAGE_{s,t} + \psi_t + \phi_s + \eta_{s,t} \]

- Note that...
  - $\alpha$ and $\omega_{\alpha}$ are not separately identified;
  - higher $E_{old,t}/E_t$ can be driven by relative supplies or productivities
Empirics - a few comments

\[ \Delta L S_{s,t}^{-1} = \beta_0 + \beta_1 \Delta E A G E_{s,t} + \psi_t + \phi_s + \eta_{s,t} > 0 \]

1. Was expecting more reduced-form evidence to start with
   - Evolution of EAGE across sectors
   - Correlation between $\Delta LS$ vs. $\Delta E_{old}/E$ across sectors

2. Why not a few controls?
   - Capital intensity, measures of offshoring, concentration, etc.

3. How stable/significant are the coefficient estimates over time?

4. Maybe there’s a more natural order for the paper?
   - Basic evidence $\Rightarrow$ Regressions/robustness $\Rightarrow$ Interpretation under old/young model (composition) $\Rightarrow$ Microfoundations
Age profile of earnings wedges

\[ LS_t = \frac{\alpha}{\omega_{young} + (\omega_{old} - \omega_{young}) \frac{E_{old,t}}{E_t}} \]

- As \( E_{old,t}/E_t \) rises, labor share falls if \( \omega_{old} - \omega_{young} > 0 \)
  - workers get (more) exploited/screwed as they age

\[ w_{a,t} = \frac{1}{\omega_a} MPN_{a,t} \]

- Declining earnings/MPN profile is crucial...
  - ...and arises naturally as a by-product of the identification

⇒ **Comment**: more outside evidence would be helpful
How does this profile compare to what is in the literature?
Large labor literature on wage/productivity profiles

Hellerstein and Neumark (1999, 2007), Crépon et al. (2003), Haegeland and Klette (1999), Dostie (2016), etc.

Summaries from survey papers:

- De Hek and van Vuuren (2010): “Two of the most convincing findings are that firms are reluctant to hire older workers, and that the wage profile of workers is not less steep than the productivity profile.”
- Van Ours and Stoeldraijer (2010): ”This suggests that older workers are relatively overpaid.”
- Van Biesebroeck (2015): “On the evidence, young workers appear to be systematically compensated below their productivity level.”
My take: generally, **older workers are found to be “overpaid”**

- Wage-age profile is steeper than productivity-age profile
- In line with a deferred-compensation model à la Lazear (1979)

But...

- Roger and Wasmer (2011): could these results be specific to manufacturing and lower-skilled workers?
- Cardoso et al. (2010): endogeneity issue in lit; “…as prime-age approaches, wage increases lag behind productivity gains.”

One way or another, reconciling with findings from labor literature seems important
Some thoughts about the way forward

- Possibility of exploiting matched worker-firm data?
  - Much more power to disentangle from other stories

- Other ways ageing could affect LS?
  - Ex: Ageing, firm creation and business dynamism
    - Ouimet and Zarutskie (2014): “an increase in the regional supply of young workers is positively related to the rate of new firm creation”
  - Ex: Age, consumer loyalty and markups

- Other “labor composition” dimensions?
  - Arrival of women in the workplace: Hellerstein and Neumark (1999) find that $w/MPN$ is lower for women
  - Rise in educational achievements: Hellerstein and Neumark (2007) find that “some college” raises $w$ by less than $MPN$
Great intuitive idea
- Links two strong trends
- Story of labor share decline that focuses on labor!

Is this THE culprit for the decline in LS?
- Ideally, more evidence needed to back the basic mechanism
- Even if ageing plays a role, could be through other channels

In the end, we have an embarrassment of riches
- Many stories, still waiting for the clear smoking gun