

**The Private Financial Gains to
Entrepreneurship -- Is it a good use of
public money to encourage individuals to
become entrepreneurs?**

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Entrepreneurs will save us!

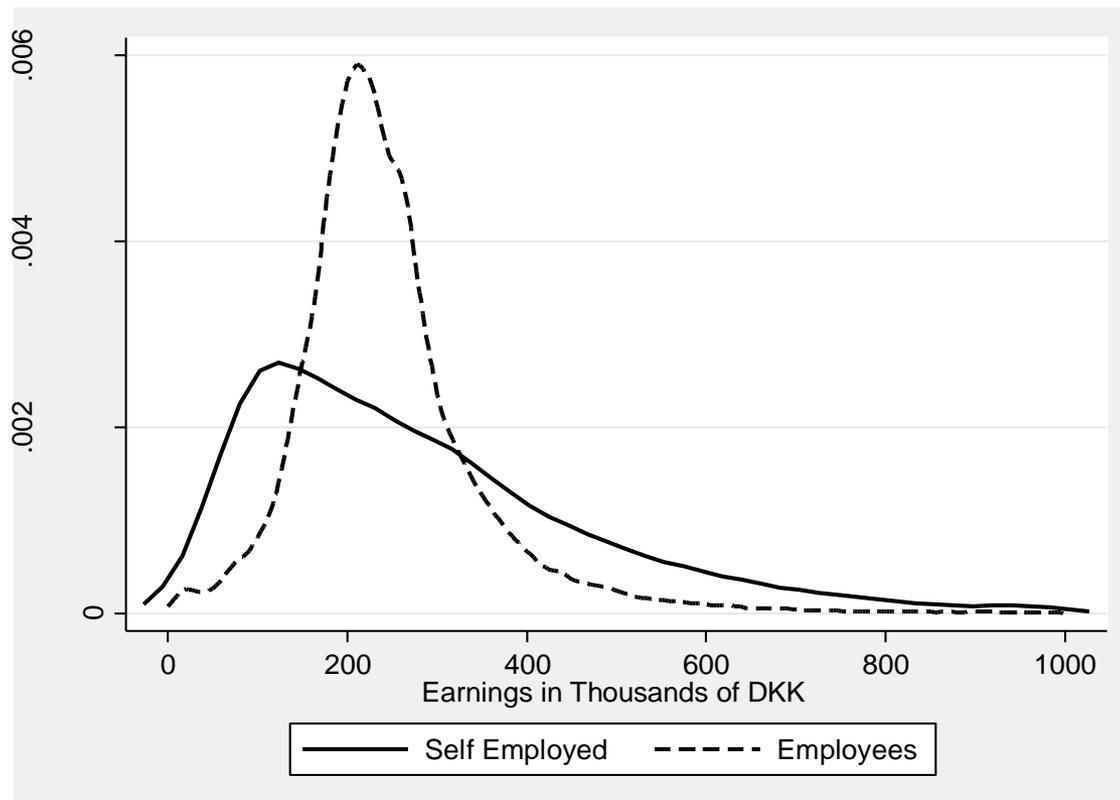
- Entrepreneurs create jobs and growth, especially when established firms fail (Schumpeter, 1947)
- But does that mean that entrepreneurs should be subsidized with money taken from wage workers?

Why subsidize?

- If the private gains to becoming an entrepreneur are negative but the social benefits are clearly positive, then there should be a subsidy, provided money is a motivation
- However, if people earn a lot of money becoming entrepreneurs the motivation for governments to subsidize them seems less obvious
- (There are other potential market failures as well, but the above is the primary one)

How much do they make?

- Estimates range between -4% and -15% per year to an observationally similar wage worker



Conditioned on individuals whose tenure at their job is at least ten years.

Source: Åstebro et al. (2014), Figure 2.

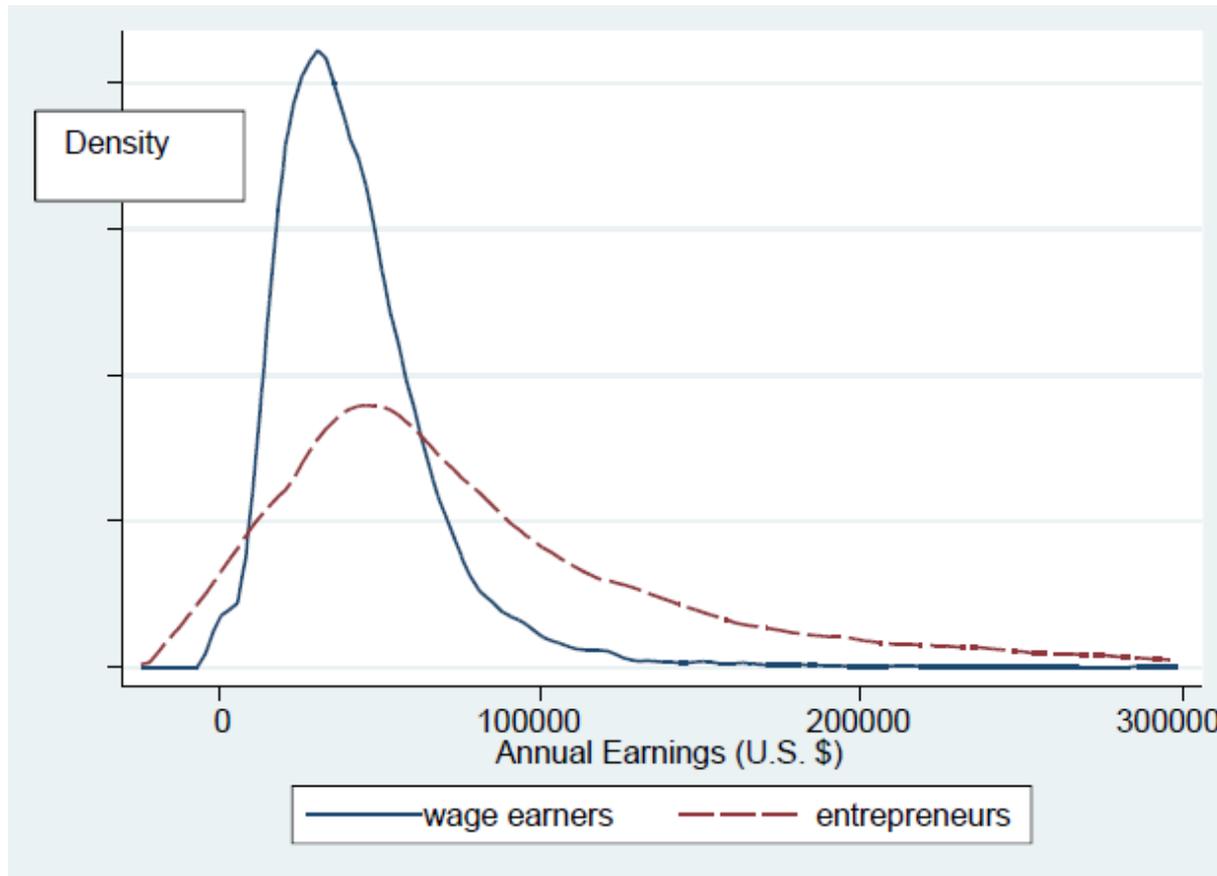
Other interesting facts

- Entrepreneurs experience a significant higher income risk, work longer hours, and persist at what they are doing
 - despite the possibility of typically earning more in wage work
- Entrepreneurs report enjoying work much more than wage workers

Who do people become entrepreneurs?

- A simple answer -- they significantly underreport their income to both tax authorities and in surveys
 - 99.5% of U.S. wages were voluntarily reported
 - 51% of known self-employment earnings were voluntarily reported
 - U.K. entrepreneurs underreport their household income by approximately 35%

What happens with earnings if we take under-reporting into account?



Earnings for U.S. entrepreneurs have been adjusted upwards by dividing each report with 0.68 reflecting the estimated degree of underreporting. Source: Åstebro and Chen (2014), Figure 1.

Do we believe this adjustment?

- We do not observe true entrepreneurial earnings
 - Inference is based on observing how much money is spent on food (and other consumption). If the entrepreneur reports much more food consumption for a given reported income than the wage earner, he is under-reporting his income with a computable amount
- Estimates verified across U.S.A., U.K., Australia, Sweden, Finland, Spain, and Canada,
 - Underreporting vary between 10% and 40%

Do we believe this adjustment?

- Hurst, Li and Pugsley (2014), reported that prior results remain valid even with a number of changes in the estimation procedures, use of different expenditure data, and across three different data sets
- Lyssirotou, Pashardes and Stengos (2004), found that removing the assumption that wage earners and entrepreneurs have the same preferences for food did not affect results
- Tedds (2010) found that underreporting varies with income, violating a basic assumption
 - When relaxing the assumption of a constant fraction of income underreported, the average Canadian household underreported only by approximately \$3,000
- Åstebro and Chen, (2014) estimate that the underreporting fraction drops by 30% if the focus is only on food eaten at home (rather than on both food eaten at home and eaten out)
- It seems entrepreneurs in fact do better financially when taking into account unreported income

Maybe we should focus only on technological entrepreneurs?

- >90% of the benefits of breakthrough innovation go to society as a whole, rather than the individual inventor, their partners, or their financial backers (Baumol, 2002; Nordhaus, 2004)
- However, these entrepreneurs are in minority
 - Most entrepreneurs are tradespeople, restaurant owners, storekeepers and service providers such as drycleaners where the social welfare are likely to be very small

Maybe we should focus only on technological entrepreneurs?

- Maybe they would undertake entrepreneurial efforts anyway, even without subsidies?
 - The difference in earnings compared to peers staying in academia was not significant (U.S.)
 - Difference in earnings before and after becoming an entrepreneur for academics were insignificant in most specifications (Sweden)
 - Of those leaving entrepreneurship within two years, fully 66% returned to academia

Maybe we should focus only on technological entrepreneurs?

- The ease by which they move out of entrepreneurship and back to academia, coupled with the apparently small difference in financial gains, does not motivate substantial subsidies for them to get started

Summary and Conclusions

- If underreporting of entrepreneurial income is taken into account, the observed average financial loss to entrepreneurship becomes a rather large average gain
- Since entrepreneurs appear to be doing economically well, the motivation for governments to subsidize them seems much less obvious
- Subsidizing technological entrepreneurs may still be motivated
 - But policy-makers and advisors need to clearly show that these inventions would not have been commercialized had there not been public subsidies in place