

Age and Productivity in Work Teams: Evidence from the Assembly Line

Discussion by
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Overview (1)

- *This paper analyses the impact of age of workers on productivity of car assembly teams*
- *It uses a huge and unique data set and contributes substantially to the literature on this topic*
- *Results show that age lowers productivity as a consequence of reduced fitness, but.....*
- *... that experience fully compensates for that, so that...*
- *... the 'net effect' of age is virtually neutral.*



Overview (2)

- *Composition of teams appears to be important: teams with workers of similar age are significantly more productive than teams with (strongly) varying ages. This is quite surprising as one might expect that a mixture of experienced/old and vital/young would be optimal.*
- *All in all, it is a very interesting paper, which I have read with great interest. It contains a clear presentation of an original approach to unique data, and provides convincing and robust results.*



General comment (1)

- *As often with this types of studies, it is difficult to generalise the results:*
- *First: this is a particular assembly line, so that results do not hold for all other type of production, e.g. office work, service industry, etc. Note that many service industry jobs are information intensive, so that human capital depreciates rapidly. Hence, the value of experience is often more limited.*
- *Second: productivity may not coincide fully with 'avoiding errors in the production'.*



General comment (2)

- *The paper does not provide a direct link to pensions.*
- *The major suggestion is that (from an economic point of view, not necessarily supported by the employees) we might delay retirement as older workers remain productive (and we can pay them accordingly).*



General comment (3)

- *A practical shortcoming of the paper might be that it studies the current age composition of the workers, where elderly in the critical years from 55 to 65 (or 68 as the recently set future retirement age for Germany) are heavily underrepresented (see Figure 2), so that the results from selectivity bias.*
- *Less productive or less motivated workers have higher chances to become unemployed, disabled, etc., so that the remaining workers constitute an above-normal productive selection.*



General comment (4)

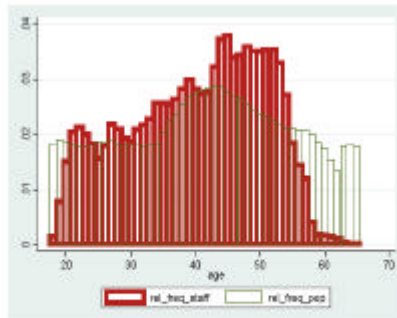


Figure 2: Age distribution in the plant (red) and in Germany (green)



General comment (5)

- *A flat productivity across all ages is quite remarkable. What happens if the range of ages would become wider? Will productivity remain flat? One expects a fall in productivity after some age limit.*
- *What would be more interesting is an approach which would provide the optimal (average) retirement age, for instance, based on the age-dependent decline in productivity (if any):*
 - If productivity falls below a critical threshold, the related income (or productivity) becomes 'insufficient'*
- *This study, however, suggests that productivity remains equal over the age profile, so that it does not provide a building block for such retirement-age theory*

