

## Age and productivity

### Over 30 and over the hill

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#### While productivity tends to fall with age, pay tends to rise

PAY and productivity, it is generally assumed, should be related. But the relationship seems to weaken as people get older.

Mental ability declines with age. That's the same for the brainy and the dim—and not just for humans: it's measurable even in fruit flies. But minds that keep lively will suffer less than the lazy. In general, the more education you have, the more productive your old age will be.

Some abilities decline faster than others. According to most studies\*, people's numerical and reasoning abilities are at their best in their 20s and early 30s. Other abilities—those that depend on knowledge, such as verbal abilities—may improve with age. One study, carried out in Seattle, suggests that verbal fluency peaks at 53, on average.

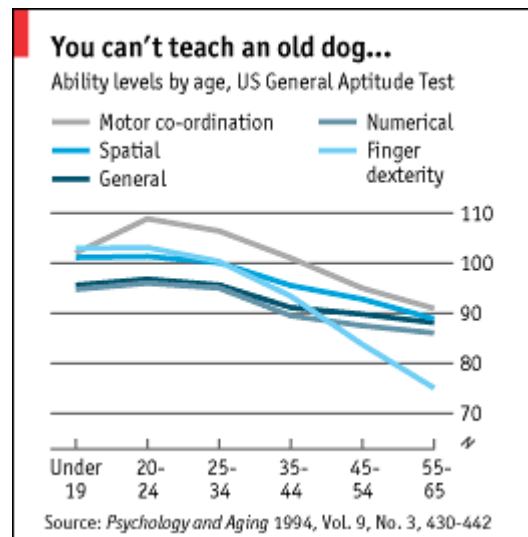
Measuring this sort of thing precisely is riddled with statistical pitfalls: as a cohort ages, for example, the frail, with low productivity, drop out. The survivors tend to be the brightest and toughest. That puts average scores up. On the other hand, improved education in past decades probably biases test scores against people too old to have benefited from it.

For most workers, decreased abilities will lead to lower productivity; only a minority will find know-how, knowledge and the ability to prattle convincingly outweighs their failing powers. And even for these, returns diminish: experience only counts for so much. This tilt is becoming steeper: technological change puts a premium on adaptability, and a discount on experience. Even those employees who remain highly productive will be likely to shine only in a narrow field.

Academics notice this. It's less clear that employers do. Studies of supervisors' ratings show no clear correlation between age and perceived productivity. When other employees' views are taken into account, though, the picture changes: these ratings suggest that workers in their 30s are the most productive and hardworking, with scores falling thereafter.

That's backed up by studies of work samples, which find lower productivity among the oldest employees. A study for America's Department of Labour showed job performance peaking at 35, and then declining. It varied by industry: the fall was slow in footwear, faster in furniture.

Brainier occupations are harder to measure, but the picture's the same. Academics seem to publish less as they age. Painters, musicians and writers show the same tendency.



Their output, measured by both quality and price, peaks in their 30s and 40s. The only exception is female writers, who are most productive in their 50s.

So what does this mean for wages? Earnings in most advanced industrialised countries tend to peak for workers at some point in their 50s. But productivity is already falling by then. "Younger workers are underpaid and older workers overpaid relative to their productivity," says Vegard Skirbekk, a Norwegian demographer based in Germany.

Why? One explanation is that though new employees may be more productive on average, their individual abilities are uncertain: hiring someone older is a safer bet. Treating older employees well may increase loyalty among younger workers. That would make sense in bits of the labour market where precise measurement of output is hard, and workers are unlikely to shift to other employers. But, as the number of older workers rises, this comfortable arrangement (for the old, at least) is likely to break down.

\*[Age and individual productivity: a literature survey](#)", Vegard Skirbekk, Max Planck Institute for Demographic Research, 2003