Skill obsolescence, vintage effects and changing tasks

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Human capital is no doubt one of the most important factors for future economic growth and well-being. However, human capital is also prone to become obsolescent over time. Skills that have been acquired at one point in time may perfectly match the skill requirements at that time but may become obsolete as time goes by. The more innovative an economy is, the more likely it is that particular technological or methodological skills become obsolete. Thus, in the following paper, we not only study the depreciation processes of workers performing different types of tasks with different skill requirements over a period of more than 20 years, but also how workers adapt to it by systematically changing their work tasks to overcome the negative consequences of skill obsolescence and depreciation in their initial stock of human capital.
We argue that two types of tasks have to be distinguished: knowledge-based tasks on the one hand and experience-based tasks on the other. We show that the human capital of people performing knowledge-based tasks suffer more from depreciation, as the human capital of individuals performing experience-based tasks. Moreover the data indicates that individuals to get around the negative depreciation effects by changing their task portfolios over their career.. We see that older people focus more on experience based tasks whereas younger workers perform knowledge based task to a higher degree.