kinds of workers, a dollar buys the same marginal revenue product for each grade of worker. If the employer provides general (or marketable) training at firm expense, then he will have to pay the worker his increased market value. If the worker is trained in skills that are useful only to the particular firm ("specific training" in Becker's term [20]) his market value to other firms does not increase and the firm will not have to pay the worker a higher wage than before the training. Nevertheless the worker can cause a loss to the firm by moving. This loss of specific training is one of the major turnover costs of the employer.[21]

Once a firm has invested in specific training for the worker, it has an incentive to protect the investment while it is being amortized. It can do this by paying the worker a larger wage than his opportunity wage that might be paid by other employers who could not benefit from his specific training.[22]

The probability of survival, d_t, depends not only on mortality and probability of disablement to the worker but also on his mobility, since if the worker leaves employment with the firm he is economically dead to the employer. The probability of survival depends in part on actions of the employer through his compensation policy.

The employer's compensation policy is also influenced by the presence of a union or the threat of unionization. Unions usually seek job security. They tend to demand and to enforce strict seniority rules for layoffs and promotions. The worker's seniority provides security worth a great deal of money.[23] Few executives or salaried workers are covered by formal seniority systems, but the custom that older workers shall not be discharged, demoted, or suffer wage cuts simply because their productivity has dropped is a powerful constraint. The employer lacks complete control over the wages and tenure of many of his employees for each period of time. Hiring decisions are increasingly long-term decisions, and this trend has led to a gradual decasualization of labor markets and the growth of continuing employment relationships.

The effect of these practices, together with the eventual decline of productivity in old age leads to a situation in which productivity and salaries are to a degree independent (fig. 4). The present value of the worker to the firm is at first close to zero (for the marginal worker), becomes large, as mobility decreases with length of service and as the employer invests in specific training for the worker, reaches a peak, then declines and becomes negative as the worker's expected worklife shortens and as wages exceed productivity (fig. 5).

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[20] See Gary S. Becker, "Investment in Human Capital: A Theoretical Analysis," *Journal of Political Economy*, supplement: October 1962, pp. 9–49.

[21] Others include recruitment costs, severance pay, and the costs of any chargeable unemployment insurance.

[22] In some circumstances, the specific training of a worker may become valuable as a result of commercial rivalry, and the rival may be willing to pay a substantial premium to learn about the internal affairs of the original employer. "Trade secrets" in the sense of unpatented inventions and techniques are other examples of marketable human capital, the knowledge of which may not increase the physical productivity of the worker but may make him especially valuable nonetheless.

[23] The worker's accumulating seniority increases his expected stream of earnings by increasing the probability of his being promoted to the level of his ability and decreases the variance of the expected earnings since the probability of layoff is decreased. A seniority system may decrease the present value of the job to the new worker who would expect rapid promotion if promotion were based on ability and who does not value distant income very highly.