

other expected income, and if another firm wishes to bid enough, it can make its offer greater than the present value of the unvested pension and wages in the original job.

The effect of pensions depends on the present value of the pension costs (P) compared to the total present values of the worker's total wealth (A) and of the wages associated with the job (W). Total wealth is important because a worker with large wealth can better afford to forfeit pension rights. In a pension plan integrated with OASDHI under Internal Revenue Service regulations, the higher the worker's wages the larger are the proportions of his pension rights to his human wealth and to his total wealth. Hence, P/W and P/A are both increasing functions of W . Thus we would expect the immobilizing effects of pensions to be greater for higher earners, *ceteris paribus*. In fact, wealth is highly correlated with earnings so the immobilizing effects resulting from the high ratios may be mitigated by a high level of wealth.

As the worker ages, W declines although A may increase. Usually P/A will be an increasing function of age; hence, the immobilizing effects of unvested pensions should increase with age.

The likelihood of a potential employer making an offer of a more valuable job to the worker decreases with age because of the shortening of remaining worklife that occurs with increasing age and the increasing ratio of $P/(+P)$ that results from accumulating pension rights. The present value of the productivity differential between any two jobs normally decreases with age, while the premium necessary to move the worker increases.¹⁹ There are few instances in which potential employers will pay a premium for an older worker. In most instances invested pensions restrain mobility of workers close to retirement age far more than is necessary to prevent movement because the older worker has no alternatives.

EMPLOYER'S WAGE POLICIES

The magnitude of the worker's wages depends on his employer's perception of his productivity. The revenue attributable to the worker's productivity is

$$R = \sum_{t=0}^{\infty} \left(\frac{(MRP)_t d_t}{(1+i)^t} \right) \quad (4)$$

where $(MRP)_t$ is the marginal revenue productivity of the worker at time period t , d_t is the probability of the worker continuing in the job through period t , and $(1+i)$ is the rate of discount relevant to the firm, which is the firm's marginal profit rate, since employers are usually assumed to borrow up to the point that the profit rate equals their interest rate (marginal interest rate in the case of a monopsonistic borrower).

The marginal revenue product depends in part on the worker's marginal physical productivity, which depends on his native ability and his training. If the labor market is in equilibrium for different

¹⁹ A given wage difference has a lower present value for an older worker than for a younger worker.