Mobility of workers is closely related to age and tenure, so that separated workers are predominantly young and have short tenure. As a result, a very large fraction of separated workers have no vested pension rights. Even relatively liberal vesting requirements provide no protection in this event. The Boeing Co., like other firms in the airframe industry, has a vesting requirement of 10 years' service, but when the Dyna-Soar contract was canceled, Boeing laid off 5,000 workers as a direct result of the cancellation. Of 3,758 respondents to a survey, only 248 respondents had over 10 years of continuous service at Boeing suggesting that perhaps 7 percent of the displaced workers had vested pensions on separation.[35] The Boeing example may be extreme in that the airframe industry is notoriously unstable, but the vesting requirement reflects this instability by being especially generous.

Although our results on the likelihood of vesting are not fully comparable with respect to age and tenure categories with those of Holland, previously published (table 14), it seems clear that our estimate of the likelihood of vesting is markedly higher in similar age and tenure groups. In the 1956–59 study, for instance, Holland found a likelihood of vesting for workers 55 to 59 years old with 20 or more years of experience to be 55 percent, while for workers of the same age with more than 20 years tenure our likelihood is 73 percent, and differences similar in direction, if not in magnitude, may be found in other age and tenure groups. Despite the crudeness of our estimates, it seems likely that vesting has become more widespread in the 1960's, but vesting is still concentrated among workers with long tenure, especially among older workers with long tenure.

## VI. SUMMARY AND CONCLUSIONS

This paper presents theoretical arguments suggesting that, in many instances (1) pensions are paid for, in part, by wages that are lower than they would otherwise be; (2) pensions reduce mobility; and (3) employers exploit workers who leave employment before gaining a vested right to a pension.

Empirical evidence of direct association between pensions and low mobility is not convincing, but there is good evidence that mobility has decreased considerably since World War II: (1) The manufacturing quit rate has declined, even when account is taken of variations in economic conditions; (2) annual voluntary job changing declined between 1955 and 1961; and (3) average length of job tenure increased from 1951 to 1966. There is no direct evidence of association between the spread of pensions and the decline of mobility, but the change in prevalence of pensions has been larger than changes in other factors that might have influenced mobility.

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[35] Leo Neuschwander and Ray Williams, *A Case Study of the Effects of the Dyna-Soar Contract Cancellation Upon Employees of the Boeing Co., in Seattle, Wash.*, U.S. Arms Control and Disarmament Agency, July 1965, table B–3, p. 46.