would not be due to involuntary retirement arising out of unfavorable

employment opportunities.

Projection II results from introducing a moderate upward trend in the male retirement rates between 1960 and 1980. This trend is based on projections of participation rates for older males by the Bureau of Labor Statistics.25 Social security retirement benefit eligibility at age 62 is assumed available for men after 1962.

Projection III assumes a larger decline in the average age of retirement. The retirement rates for this projection are estimated from projected participation rates, using a technique developed by Stuart H. Garfinkle.29 The trend in participation rates is based upon the data presented in table 6, which shows recent estimates of male participa-

tion rates over the 1961-66 period. Social security eligibility at age 60 is assumed.

Table 7 shows the resulting pension income projections. The effect of early retirement and early pension eligibility (under the assumption assumed) is to cause the income distribution to shift down at the lower end. This results in a sharp rise in the number of persons projected as receiving very low pension income—income which is, by present adequacy standards, inadequate.30

TABLE 7.—PROJECTED PENSION INCOME DISTRIBUTIONS, 1980 [Percent distribution]

Pension income —	Retired couples			Retired unmarried		
	ı	11	111	1	11	111
ss than \$1,000	4	5	6	32	32	
.000 to \$1,999	17	16	25	20	19	
,000 to \$2,999	28	28 25	26	21	31	
000 to \$3,999 000 to \$4,999	24		21	20	11	
000 to \$4.999	12	14	12	5	5	
000 to \$9,999	16	12	11	2	3	
	100	100	100	100	100	

Source: Simulation model (see text).

## 5.2 Projected pension-earnings ratios

In a study of future aged pension income adequacy, which I have not yet fully completed, the effects of early retirement upon income adequacy are illustrated quite vividly. The measure of income adequacy being used in the study is the amount of wage replacement after retirement provided by pension income.

Table 8 shows some of the preliminary findings of this study.31 It presents the projected ratio at retirement of total pension income to average earnings 5 years prior to retirement for married males (who were age 45 to 60 in 1960). The tabulation is broken into three groups by age at time of retirement: less than age 60, 60 to 64, and over 64.

<sup>&</sup>lt;sup>23</sup> U.S. Bureau of Labor Statistics, "Labor Force Projections for 1970-80," Monthly Labor Review, 88 (February 1965), 129-140.

<sup>25</sup> Op. cit.

<sup>30</sup> The social security poverty index, for example, is presently about \$2.500 for couples and \$1,750 for unmarried persons.

<sup>31</sup> The simulation model described above (in modified form) was used to make these projections. projections.