

We now come to the question of why pension plans do not pay their accumulated funds to retirees in a single sum. The main reason corporations and institutions throughout the country—whether commercial or nonprofit, public or private—do not make lump-sum settlements of accumulated benefits upon retirement is the conviction that their pension obligation to a retired employee lasts as long as the employee does, and that their pension plan must therefore pay the maximum possible *lifetime* income—an income that retired employees cannot outlive or lose through poor investments or incapacity in old age.

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Reference

1. *Standard and Poor's Trade and Securities Statistics, Security Price Index Record* (Standard and Poor, New York, 1970), pp. 167-184; *Standard and Poor's Trade and Securities Statistics, Security and Price Index Record, Current Statistics Supplement* (Standard and Poor, New York, Jan. 1972), pp. 50-51.

Ph.D.'s with Husbands

Susan M. Ervin-Tripp (Letters, 24 Dec., p. 1281) describes a recipe for determining whether the hiring of Ph.D.'s discriminates against women: ". . . multiply by .91 [the percentage of women with doctorates working in the last decade . . .] the percentage of Ph.D.'s that were given to women scientists in the top five departments in each field. . . ." Unless an institution or department has the resulting percentage of women at each rank it doesn't qualify as discrimination-free.

This hypothesis has much to recommend it, and Ervin-Tripp in all likelihood has stated a suitable zeroth-order approximation to the problem. Unfortunately she has neglected several first and second order corrections that may be comparable in magnitude to the term she cites. Her proposal actually gives an upper bound which may be several times larger than a true nondiscriminatory level of employment and which might mislead some into practices that discriminate seriously against men.

The corrections are necessary because Ervin-Tripp makes the implicit assumption that for the purposes of employment the mobility of women is identical to that of men. This may be

reasonably valid for unmarried women. However, marriage places a constraint on the mobility of both men and women and limits their joint opportunities for careers, the limitation being more severe if they elect to live in a small, nondiversified community. For the sake of simplifying the analysis, let us divide the married women into two fractions, f_1 and f_e , liberated and enslaved, depending on whether the woman or her husband determines where they both live.

In these terms, the percentage calculated by Ervin-Tripp's formula should be multiplied by the quantity

$$Q = [F_u + F_m (f_1 + f_e P_h)] \quad (1)$$

in which F_u and F_m are the fractions of women with Ph.D.'s who are unmarried and married. The quantity P_h is the probability of an enslaved, married woman Ph.D. having a husband whose work takes them to a community that has an academic position suitable to her talents.

Insofar as I know, there have been no very detailed studies of what governs P_h , or of its impact upon the employment of women Ph.D.'s. However, for those in a large metropolitan area one would expect P_h to be larger than for a smaller, college-dominated town. My limited experience with employment of women Ph.D.'s on our faculty and with the placement of our own graduates leads me to believe that the effective value of P_h for an institution and community such as ours may be as small as $1/5$ in some disciplines. In Eq. 1, F_u and f_1 are substantially less than $1/4$, so to a good approximation, $Q \approx P_h$. Therefore, the Ervin-Tripp approach overestimates the nondiscriminatory level of academic employment of women Ph.D.'s by the factor $1/P_h$, which may be severalfold.

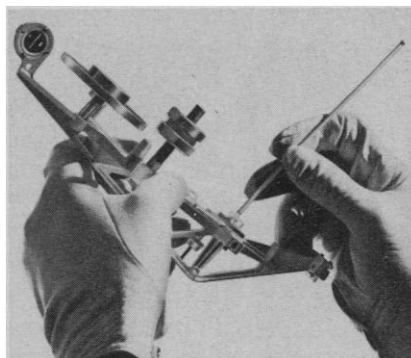
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Special Virus Cancer Program

Nicholas Wade's report on the Special Virus Cancer Program (SVCP) at the National Cancer Institute (News and Comment, 24 Dec., p. 1306) needed to be written, was well researched, and represents a good overview. However, I reject criticism by "a virologist acquainted with NIH affairs," "a virologist under contract to the SVCP," "academic scien-

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