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# Labor-Force Participation of Older Married Women

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This article utilizes the 1969, 1971, and 1973 waves of the Longitudinal Retirement History Study (LRHS) to examine stopping work by working wives of respondents. Different patterns of labor-force participation reveal that younger wives of respondents were more likely to work than were older wives. Most wives did not reenter the labor force after leaving it. The determinants of stopping or continuing work in 1969-73 for those wives who worked in 1969 were also examined. Although the patterns were somewhat different for younger wives, two factors stand out: Coverage of the wife by a private pension plan and providing support for children or elderly parents have substantial effects on the probability of continuing work.

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Whether a married woman ever works may be determined relatively early in life. At later ages it is increasingly unlikely that someone with no labor-force experience will begin work. Among working wives, what determines the timing of the reduction of work with approaching old age is addressed in this article. Also addressed is the rate at which working wives of respondents to the Longitudinal Retirement History Study (LRHS)<sup>1</sup> left the labor force during 1969-73. The article describes the overall rates at which these women stopped work. Also explored are factors that determine whether a woman stops or continues work.

These are useful questions to ask for at least two

reasons: (1) Most existing research on the labor-force participation of women emphasizes the role of life-cycle and family characteristics, particularly fertility and family economic status, in determining whether and how much younger women work.<sup>2</sup> Examining the work patterns of older women allows us to ask whether their work outside the home can also be seen in light of family characteristics, though different characteristics may be important at this stage of the life cycle. (2) Much of the research on labor-force participation of older men and on their retirement decision has emphasized the role of available nonwork income and family characteristics as they define the need for income.<sup>3</sup> Examining work patterns of older women can make explicit the role of family characteristics late in the life cycle and can also explore the similarity of explanations of work patterns for older men and older women.

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<sup>2</sup> J. Mincer, "Labor Force Participation of Married Women: A Study of Labor Supply" in National Bureau of Economic Research, **Aspects of Labor Economics**, Princeton University Press, 1962, pages 63-106; J. Kreps, **Sex In The Market Place: American Women At Work**, Johns Hopkins University Press, 1971; L. J. Waite, "Working Wives: 1940-1960," **American Sociological Review**, February 1976, pages 65-80; and L. J. Waite and R. M. Stolzenberg, "Intended Childbearing and Labor Force Participation of Young Women: Insights From Nonrecursive Models," **American Sociological Review**, April 1976, pages 335-352.

<sup>3</sup> R. E. Barfield and J. N. Morgan, **Early Retirement: The Decision and the Experience (1969)**, and **The Automobile Worker and Retirement: A Second Look (1970)**, Institute for Social Research, University of Michigan, and G. Bowen and T. A. Finegan, **The Economics of Labor Force Participation**, Princeton University Press, 1969.

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<sup>1</sup> L. M. Irelan, "Retirement History Study: Introduction," **Social Security Bulletin**, November 1972, pages 3-8.

**Table 1.—Patterns of labor-force participation**

Labor-force status	Wives					
	Under age 58			Aged 58 and older		
	Number	Percent	Percent of those who worked at least 1 week	Number	Percent	Percent of those who worked at least 1 week
Total.....	3,294	100.0	.....	2,539	100.0	.....
Orderly pattern:						
Out (1969, 1971, 1973).....	1,546	46.9	.....	1,657	65.2	.....
In (1969).....	206	6.2	11.7	216	8.5	24.4
Out (1971, 1973)						
In (1969, 1971).....	216	6.5	12.3	253	9.9	28.6
Out (1973)						
In (1969, 1971, 1973).....	1,002	30.4	57.3	292	11.5	33.1
Disorderly pattern:						
Out (1969, 1971)						
In (1973).....	92	2.8	5.2	27	1.0	3.0
Out (1969)						
In (1971).....	69	2.0	4.0	33	1.3	3.7
Out (1973)						
Out (1969).....	105	3.2	6.0	40	1.5	4.5
In (1971, 1973)						
In (1969)						
Out (1971).....	58	1.7	3.3	21	.8	2.4
In (1973)						

### Overall Participation Rates

Table 1 presents basic data on the transition of wives out of the labor force during the first three waves of the LRHS. The data are for all wives who remained in the survey during 1969-73. Data are presented separately for wives who were younger than age 58 in 1969 and for those aged 58 or older. Forty-seven percent of the younger wives and 65.2 percent of the older wives were out of the labor force in all three survey weeks. This article does not consider these nonworkers further. The table also describes other "orderly" patterns of labor-force participation and withdrawal; that is, patterns are described in which, once a woman leaves the labor force, she does not return for the remainder of the survey. It is possible that some of these women reentered the labor force after 1973. As expected, more of the younger wives are in the labor force in all three surveys. Of the wives who worked in at least one survey week, 57.3 percent of the younger wives were in the labor force at all three times, compared with 33.1 percent of the older wives. The older wives were much more likely to stop work after 1969 or 1971 than were the younger wives.

The last four rows of table 1 include all wives who fell into other patterns—women who worked at least one survey week between 1969 and 1973 but do not fall into one of the patterns discussed above. Their patterns are

"disorderly" in the sense that the wife reenters the labor force after having been out of the labor force in at least one survey week. Most of these women were in the labor force at the time of the 1973 survey. Younger women are more likely to fall into one of these patterns. These discontinuous patterns are typical of many women's work careers,<sup>4</sup> and they may be associated with a wife's age because younger wives are not yet into the retirement phase of the family life cycle and may be continuing their earlier "in-and-out" pattern.

Overall, the table identifies some interesting age differences. Older wives are less likely to work during the period; and among those who do work, they are less likely to work in all three survey weeks. In addition, they are less likely to follow an "in-and-out" pattern. Among both younger and older wives, about 85 percent of workers follow one of the "orderly" patterns of labor-force participation. The age differences shown in table 1 suggest that a woman's own characteristics have some predictive value in explaining the process of stopping work. For women of a particular age, however, nothing is known from this table of the factors that are associated with whether a woman leaves the labor force or whether she remains working.

<sup>4</sup> S. W. Polachek, "Discontinuous Labor Force Participation and its Effects on Women's Market Earnings," C. B. Lloyd (editor), *Sex, Discrimination and the Division of Labor*, Columbia University Press, 1975, pages 90-122.

## Family Life Cycle and Labor-Force Attachment

The importance of the family life cycle and the economic status of the family for the labor-force participation of women aged 16-44 has been demonstrated repeatedly. The concepts of "secondary career,"<sup>5</sup> "dual career,"<sup>6</sup> "life-cycle squeeze,"<sup>7</sup> and "dual linkage familial-occupation system,"<sup>8</sup> all emphasize the family as the unit of analysis in the study of labor-force participation among women. The general conclusion that can be drawn from this research is that family characteristics tied to the family life cycle have in the past largely accounted for whether or not women work outside the home, though recent research<sup>9</sup> suggests that labor-force participation and family life cycle may affect each other simultaneously.

The family life cycle refers to the sequence of statuses and attendant roles of the individual traditionally associated with certain ages,<sup>10</sup> such as occur with the establishment of a household upon marriage, child-bearing, childrearing, and retirement. These family-related responsibilities may create pressures for additional income at different stages of the family life cycle as well as facilitate or discourage work by wives outside the home. The concept of life-cycle squeeze was developed to explain:

(1) The emergence of these pressures particularly at two points of the family life cycle: One, soon after marriage when fertility patterns and plans<sup>11</sup> and important acquisitions such as a home create the need for additional income; and the other, a little over a decade later, when the presence of adolescent children is associated with high costs of family maintenance.<sup>12</sup>

(2) Aggregate rises in the labor-force participation of women that coincide with these two periods.<sup>13</sup> The life-

cycle squeeze hypothesis has sought to explain aggregate level of labor-force participation on the basis of individual characteristics which are hypothesized to occur quite generally at particular ages. On an individual level it should also be possible to examine this hypothesis since it would be expected that the probability any older wife works will depend on current family structure and retirement considerations.

The life-cycle squeeze hypothesis emphasizes the role of short-run responses of women to changes in family needs. That is, wives tend to work in response to transitory changes in husbands' incomes.<sup>14</sup> It is also possible that there are some long-run effects of low husbands' incomes.<sup>15</sup> Wives do not just respond to transitory changes in the husbands' incomes, but they are also more likely to work when husbands' incomes are permanently low.

Short-run factors that explain the work patterns of women also seem responsible for the decision of older males to reduce work. Both the reduction in the rate of labor-force participation of older men<sup>16</sup> and individual decisions to retire<sup>17</sup> have been tied to the amount of available retirement income. As with wives, in some cases men respond to short-run considerations. For example, many auto workers in the Barfield and Morgan study of early retirement declined a widow's pension to maximize current income, and many accepted social security benefits at age 62 even though a tie-in of the auto worker pension and social security meant the total benefit of those accepting early social security would be reduced at age 65.<sup>18</sup> That is, men modified their labor-force behavior on the basis of a temporarily high retirement income. These instances are not completely parallel to the response of women to transitory changes in family income, but they do suggest one parallel: Both men and women respond to relatively short-run considerations in their labor-force participation.

Older women workers probably modify their labor-force behavior in response to their own work histories as well as to short-run family needs. Past labor-force activity and earnings capacity have been found to facilitate or inhibit younger women's work.<sup>19</sup> Lifetime

<sup>5</sup> M. B. Turner, *Women and Work*, Institute of Industrial Relations, 1964.

<sup>6</sup> John R. Shea, Ruth C. Spitz, and Frederick A. Zeller, *Dual Careers*, Volume I, Manpower Research Monograph No. 21, Department of Labor, 1970.

<sup>7</sup> W. K. Gove, J. W. Grimm, S. C. Metz, and J. D. Thompson, "The Family Life Cycle: Internal Dynamics and Social Consequences," *Sociology and Social Research*, January 1973, pages 182-195; and V. K. Oppenheimer, "The Life Cycle Squeeze: The Interaction of Men's Occupational and Family Life Cycles," *Demography*, May 1974, pages 227-245.

<sup>8</sup> C. Safilios-Rothschild, "Dual Linkages Between the Occupational and Family System: A Macrosociological Analysis," M. Blaxall and B. Reagan (editors), *Women and the Work Place: The Implications of Occupational Segregation*, University of Chicago Press, 1976.

<sup>9</sup> L. J. Waite and R. M. Stolzenberg, *op. cit.*

<sup>10</sup> M. W. Riley, M. Johnson, and A. Foner (editors), *Aging and Society*, Russell Sage Foundation, 1972.

<sup>11</sup> J. A. Sweet, *Women in the Labor Force*, Seminar Press, 1973; and L. J. Waite and R. M. Stolzenberg, *op. cit.*

<sup>12</sup> W. K. Gove et al., *op. cit.*; V. K. Oppenheimer, *op. cit.*

<sup>13</sup> V. K. Oppenheimer, *ibid.*; and J. Kreps and R. Clark, *Sex, Age and Work: The Changing Composition of the Labor Force*, Johns Hopkins University Press, 1976.

<sup>14</sup> J. Mincer, *op. cit.*; G. Bowen and T. A. Finegan, *op. cit.*; and D. O. Parsons, "Health, Family Structure and Labor Supply," *American Economic Review*, September 1977, pages 703-712.

<sup>15</sup> G. C. Cain, *Married Women In The Labor Force*, University of Chicago Press, 1966.

<sup>16</sup> J. H. Schulz, *The Economics of Aging*, Wadsworth, 1976.

<sup>17</sup> R. E. Barfield and J. N. Morgan, *op. cit.*, 1969 and 1970.

<sup>18</sup> *Ibid.*

<sup>19</sup> L. J. Waite, "Working Wives: 1940-1960," *op. cit.*; L. Smith-Lovin and A. Tickamyer, "Nonrecursive Models of Labor Force Participation, Fertility and Sex Role Attitudes," *American Sociological Review*, August 1978, pages 541-557; and F. D. Blau, "Longitudinal Patterns of Female Labor Force Participation," H. Parnes et al., *Dual Careers*, Volume 4, Manpower Research Monograph No. 21, Department of Labor, 1975, pages 27-55.

labor-force attachment should be particularly relevant to older women's preretirement work, especially as it relates to retirement income sources and size. In this way also older women and older men may be similar in their labor-supply responses.

## The Older Family

Specific family and economic considerations that might influence the older wife to stop work or to continue for a few more years are:

(1) **Husband's characteristics.** Much of the literature on work by wives has examined the effect of husbands' labor-force participation, earnings, and health. This literature would seem an obvious place to look for information on older wives as well; the nature of the relationship, however, may change. Research on younger women suggests that wives work when husbands' incomes are low, particularly when husbands experience short-term reductions in earnings—because of ill health, for example. For older families stopping work may not mean a short-term change in family income. A husband's retirement may signal an emphasis on leisure activities by the family, and stopping work may be planned. The latter has been suggested as an explanation for whether wives work.<sup>20</sup> This analysis of stopping work focuses only on workers, but similar findings for other women would be expected.

(2) **Wife's characteristics.** As noted above, a wife's age has a strong effect on patterns of leaving the labor force. There are a number of characteristics of the wife which might also be important. The strength of her labor-market attachment, measured by her level of lifetime work, may affect her later work. The quality of her job and its wage may also be factors. A final consideration is pension coverage. Private pension coverage is an important predictor of retirement for men and, while relatively few women are covered by private pensions, it could have a large effect on those who are covered. To the extent that wives' characteristics play a role in determining work patterns, the retirement decisions of wives are not secondary to family considerations.

(3) **Family economic resources and needs.** Most research on the labor-force status of women has emphasized the ways in which their labor-force participation is secondary to their family roles, and economic need of the family has been seen as important as an inducement for women to work. Husbands' earnings are one measure of this need but there are others. Such measures may be of either current or future need. For example, one might examine both current need (such as

whether the family supports either children or aged parents) or measures of future resources (such as potential social security benefits). Based on currently available research, measures of current need are expected to be more important than future needs in determining whether the wife stops work.

## Results

Table 2 presents results for the two age groups separately. For each age group there are two equations: One contrasting those who worked only in 1969 with those who worked longer; and another contrasting those who worked in 1969 and 1971 with those who worked all three years. Thus, in each case, those who work a certain length of time are compared with those who work more. The dependent variable is coded: 1 = stops work and 0 = works longer. Therefore, negative signs indicate more work. The equations are estimated using the Nerlove-Press (1973) program for estimating multivariate logistic models.<sup>21</sup>

Although logistic models have a number of advantages with binary dependent variables,<sup>22</sup> their coefficients do not have the intuitive meaning of coefficients in linear probability models. Therefore, in the discussion of the results presented below, the coefficients are transformed to predicted proportional effects by evaluating them at the overall mean for the particular equation. These results are shown in each column to the right of the logit coefficients. These are the predicted changes in the probability of stopping work resulting from a change in the independent variable when the woman would otherwise be predicted to be at the mean of the dependent variable. Evaluating these coefficients at other locations would yield different effects since the logistic model is multiplicative, and the effect of any one variable depends on the state of the others. This model conforms best to actual, individual decision-making processes. For example, for someone who on all other variables would be expected to continue working, having children to support probably adds little to the probability of continuing work. For someone who otherwise has a fifty-fifty chance of stopping or continuing, however, supporting children may be a decisive deciding factor.

For the younger wives (left panel in table 2), the variable measuring whether the husband and wife

<sup>21</sup> M. Nerlove and S. J. Press, "Univariate and Multivariate Loglinear & Logistic Models," Rand Corporation, 1973. The logit model was estimated using the version of the program modified and maintained by the Economics Department of North Carolina State University. The authors thank Ann McDermid for making a copy of the program available.

<sup>22</sup> The predicted change in the proportion working for a change in an independent variable (therefore, the partial derivative of P with respect to one of the independent variables) is  $B(p(1-p))$  where B is the logistic coefficient and p is the probability (based on the other predictors) where the coefficient is evaluated.

<sup>20</sup> K. Anderson, R. Clark, and T. Johnson, "Retirement in Dual Career Families," unpublished paper, Department of Economics and Business, North Carolina State University, 1978.

**Table 2.—Determinants of stopping work**

Dependent variable	Wives							
	Under age 58				Aged 58 and older			
	Equation 1 <sup>1</sup>		Equation 2 <sup>2</sup>		Equation 1 <sup>1</sup>		Equation 2 <sup>2</sup>	
	Logit coefficient	Predicted proportional change						
<b>Husband's characteristics:</b>								
Labor-force participation in 1969 .....	0.081	0.009	0.299	0.043	-0.184	-0.037	-0.557	-0.138
Earnings in 1968 .....	0	0	0	0	0	0	0	0
Age .....	.055	.006	-.029	-.004	.021	.004	.098	.024
Health .....	-.059	-.007	-.043	-.006	<sup>3</sup> .426	.086	.326	.080
<b>Wife's characteristics:</b>								
Age .....	.034	.004	<sup>3</sup> .048	.006	<sup>3</sup> .179	.036	<sup>3</sup> .107	.026
Quarters of coverage .....	<sup>3</sup> -.019	-.002	<sup>3</sup> -.019	-.002	-.009	-.001	<sup>3</sup> .015	.003
Hourly wage in 1969 .....	<sup>3</sup> -.213	-.026	-.037	-.005	<sup>3</sup> -.172	-.034	.013	.003
<b>Family and retirement-income measures:</b>								
Social security benefit .....	0	0	-.001	0	0	0	.001	0
<b>Private pension:</b>								
Husband's .....	.323	.039	<sup>3</sup> .641	.092	-.091	-.018	.345	.085
Wife's .....	-.516	-.063	.235	.034	<sup>3</sup> .802	.162	<sup>3</sup> .939	.232
Support family members .....	-.165	-.020	<sup>3</sup> -.434	-.062	<sup>3</sup> -.691	-.139	-.356	-.088
Constant .....	-5.95	.....	-.167	.....	-13.05	.....	-13.38	.....

<sup>1</sup> Those who worked only in 1969 = 1 (Line 3, table 1) and those who worked longer = 0 (lines 4 and 5, table 1).

<sup>2</sup> Of those who worked past 1969, those who worked only in 1971

= 1 (line 4, table 1) and those who worked in 1971 and 1973 = 0 (line 5, table 1).

<sup>3</sup> Significant at .05 level of confidence.

support either a parent or a child has interesting effects. The estimated effect is not statistically significant for the first equation. For those who do work past 1969 (the second equation), the effect is large and significant. Supporting a parent or child in 1971 is associated with a 6.2 percent chance of continuing work past 1971—some evidence for the “middle-age preretirement squeeze.” Those who are still responsible for the financial well-being of others, and therefore in a sense in a “younger” phase of the life cycle, are more likely to continue to work.

Among younger wives, coverage of the husband by a private pension also has some effects. The effect is significant in the second equation: coverage by a pension reduces the chances a wife will continue work past 1971 by 9.2 percent. The effect in the first equation is not significant at the .05 level used, but the predicted reduction in work is 3.9 percent. One would expect that a husband's pension would reduce the chances the wife will continue work since a pension guarantees future family income.

There are a few other variables in the younger women's equations that reach statistical significance but that are not very large. For example, those wives with more previous labor-market experience are more likely to continue work in both equations. The effects, however, are small. An additional year of previous work (four quarters of coverage under social security) increases the probability of continued work by .8 per-

cent. Though small, these effects suggest that greater lifetime work experience is associated with later retirement.

In the equations for the older wives, a somewhat different set of factors is important. The strongest and most consistent effects for older wives are the wife's private pension coverage variables. Those women who will receive a private pension are much more likely to stop work. In the first equation, they are 16.2 percent more likely to be in the group that does not work past 1969. Among those who do work past 1969, they are 23.2 percent less likely to work past 1971. Women in this group are at least aged 62 in 1973 and many will actually be eligible to receive their pensions. A wife's age also has important effects. Among these older wives, each year reduces the probability of working past 1969 by 3.6 percent and reduces the probability of working past 1971 by 2.6 percent.

For older wives, there is some evidence that a husband's health limitation does affect the decision by the wife to continue or not continue work. Though as noted earlier, there is some possibility of misspecification of the model presented here, the husband's health limitation in 1969 has a large effect on whether the wife continues work past 1969. Those wives whose husbands are still working are about 8.6 percent more likely to continue work. The coefficient is equally large (8.0 percent) but not significant in the second equation. This finding seems to provide some confirmation of the

joint retirement hypothesis presented by Anderson et al.<sup>23</sup> They analyzed all couples, however, while only couples where the wife worked during this period were analyzed in this study. Whether the family supports other family members has a strong effect in the first equation for older wives—a predicted 13.9 percent increase in the probability of continuing work past 1969; but it is not important in the second equation.

It is also worth noting which factors do not seem to affect the decision to stop work. Current income, as measured by a husband's earnings, has no effect and neither does prospective retirement income as measured by the social security benefit calculated on a husband's earnings record. A wife's hourly wage has a negative sign in all four equations, however; it is statistically significant in only two. Race was not included as a predictor because in all of the analyses it had no effect.

In the case of social security benefits, it is important to note some limitations on the findings. Among wives who were working in 1969, the amount of social security benefits to be received on the basis of husbands' earnings records did not have a significant effect on stopping work. In some preliminary analyses, however, it was found that the level of social security benefits has a significant effect in the expected direction in determining whether a wife will work at all during the period. This finding suggests that while the level of benefits does not affect stopping work over the limited period examined, it does affect whether a woman works. This finding probably results from the effect of social security benefits over a longer period; it is possible, for example, that the level of benefits led a number of women to stop work before the 1969 survey.

## Summary

There are two relatively stable and important general patterns in these data: First, current support of a child or of an aged parent predicts continued presence in the labor force. This kind of current need for greater income is perhaps most likely to lead to more work because it is one that a wife's work can help fulfill in the short run. The support variable was statistically significant and substantively important in two of four equations and has a negative sign in the other two equations.

A second important set of factors is pension coverage of the wife. The expectation of a private pension has a very strong effect on the labor-force participation of wives.

For younger wives, such an expectation does not produce a significant effect on labor-force participation. Eventual receipt of a pension may require additional work for many of these women, and those who will receive pensions are probably in more desirable jobs.

For older wives, receipt of a private pension is associated with greatly reduced probabilities of continuation in the labor force. Compulsory retirement rules that often accompany private pensions, the need to retire to receive the pension, as well as the availability of alternate income are probably part of this decision. Although the effect of pension coverage is great, relatively few women in this cohort expect to receive a private pension. This factor is not true in later cohorts, and private pension coverage may be central to retirement decisions in the future.

Beyond these general findings, an important pattern emerges that is limited to older wives. Among older wives, a husband's health limitation affects her work. If the husband's health limited his work in 1969, the wife was likely to stop soon. This finding suggests an interesting age interaction. The work of the wife is secondary to her family role in the sense that she stops work in response to the poor health of her husband, but this only occurs at later ages. A husband's age is in the equation, so this finding is not due to the correlation between a husband's and a wife's age. This situation indicates that the response of the wife to the husband's leaving the labor force depends on the age of the wife. A joint retirement pattern of families with a working wife may only occur when the wife is also in the "normal" retirement age range.

This analysis is a preliminary one and much better data will eventually be available from the LRHS when all waves of the data are analyzed. The reason these results are preliminary is that some respondents probably reenter the labor force in years after 1973; and persons who leave work the day before the survey week are classified differently from those who leave work the day after the survey week. Thus, some wives were misclassified. Complete data will allow better classification.

This analysis, however, does allow addressing the questions posed earlier: How well do the factors used to explain the labor-force patterns of younger women or older men apply to older wives? Although a number of variables did not have the effect expected, some results do conform to expectations:

(1) Some of the same factors that affect the decisions of older men affect women as well—such as the need to support other family members, and wives' pensions.

(2) There is evidence that family factors also affect wives' continuation of work. Supporting other family members and a husband's labor-force participation are illustrative of these family effects.

## Technical Note

### Variables and Method

To examine the factors that affect the labor-force participation of older wives, the data from table 1 was

<sup>23</sup> K. Anderson et al., *op. cit.*

coded into two comparisons for each age group. The first comparison is between those who worked only in 1969 versus those who worked later. Therefore, on the first dependent variable, those who worked only in 1969 are coded one, and those who worked in 1971 or 1973 are coded zero. This method contrasts those who left the labor force relatively early with those who worked longer. The second comparison is an analysis of the patterns of those persons who worked after 1969, and it contrasts those who worked only in 1971 and those who were in the labor force all 3 years. Those who worked in 1971 are coded one and those who worked in 1971 and 1973 are coded zero. Those who worked only in 1969 are excluded from this second analysis. Thus, the analysis is conducted in two stages: (1) Those who worked only in 1969 were compared with those who worked longer and (2) among those who worked longer, those who stopped after 1971 were compared with those who continued to work in 1973. Those persons who fell in the "disorderly" patterns are not included in the analysis.

As predictors of patterns, the following are included:

(1) **Four characteristics of the husband.** A husband's earnings in 1968, and a husband's labor-force status in 1969, coded as in or out of the labor force are included because, as discussed above, the work of wives has often been seen as secondary to that of the husband. Some misspecification may occur in using these variables as predictors of work by a wife since it is possible that work by the wife at an earlier period (before 1969) may account for them. This is not likely to be a serious problem for two reasons: First, if a husband's work depends on whether the wife works, there is no problem since all wives analyzed here worked in 1969. Of course, if a husband's response depends on how much work the wife performs, there could be some misspecification. Second, causation is assumed primarily from husband to wife. A measure of whether a husband's health in 1969 limits his work is included to measure the effect of a husband's ill health on the work of the wife. A husband's age is included even though there is a limited age range because it allows an examination of the effect of a wife's age, not of a husband's.

(2) **Four measures of a wife's job and work experience.** A measure of a wife's previous labor-market experience is included, measured by the number of quarters she worked in jobs covered under social security in the period 1955-64—the period ending 5 years previous to the survey. Such a measure allows for assessing the effect of long-term labor-market experience on the probability of leaving the labor force early or late. Although the usefulness of the measure as

first approximation of an important concept has led to including it in the equations below, there are two potential problems: (1) There is measurement error in the variable because some women have worked some or all of the period in jobs not covered by social security. (2) Although the measure is somewhat different conceptually from the dependent variables and it is removed in time from them, there is the possibility that the quarters-worked measure is correlated with the errors in the dependent variable. For example, there may be an omitted variable that explains both early and late labor-force participation by wives, and this might bias the estimated coefficients.

One factor that may reduce this bias is that earlier labor-force participation has its greatest effect on predicting whether a woman will work later. Its effect on how much she will work is less, however, and is also less likely to be explained by an omitted variable. A second measure for a wife is her age. As noted earlier, this is an important predictor of patterns of leaving work. A third characteristic of a wife is her 1969 hourly wage. A wage level measures the quality of her job as well as the cost of stopping work. A final measure is a wife's coverage by a private pension. This measure is constructed from a question from the 1971 survey asking how much the spouse will receive from a private pension. Those responding with an amount are coded one; everyone else, including those who could not provide an amount, is coded zero. One problem in analyzing the effect of pensions is that they are often tied to compulsory retirement. The correlation is so high between the two that they can be considered one concept, and the pension coverage question has been used as a measure of this concept.

(3) **Measures of family economic status and need.** A variable was included, measuring whether the family supports a child or an aged parent in 1969 and 1971 (first equation) or in 1971 and 1973 (second equation). Two other measures of financial retirement status are included: Whether the husband expects to receive a private pension, a variable coded the same as for the wife; and the social security benefits for the couple when the husband is aged 65, based on the husband's earnings only. This variable was coded using the husband's earnings record. In addition to the variables included, also examined in various equations was the effect of family nonhome assets or mortgage balance. These variables were not statistically or substantively important and were not included in the analysis presented here because—given their variance and the number of cases in some of the equations—not all equations would converge to a solution when these variables were included.