

## The labor force participation of older women: retired? working? both?

*Noneconomic factors—such as level of education, job flexibility in work hours, and physical stress—appear to influence older women’s labor force participation more strongly than economic ones, resulting in many “retired” women who are employed*

Elizabeth T. Hill

**W**hy do older women participate in the labor force? There is some evidence that on average, women’s incomes at older ages are low; therefore, they may work because they have to work. However, more-educated women continue to work till older ages. Thus, to the extent that education and income rise together, some older women apparently work because they prefer to work. This article considers the question of women working during the usual retirement ages: What are the ages of older women who are employed? Do work hours change as women age? Does the age of those who work more weeks per year differ from those who work more hours per week? Do older women typically leave the labor force and re-enter later or do they continue working? Do they work primarily because of income needs or do other reasons prevail?

The data are from the Mature Women’s Cohort of the National Longitudinal Survey of Labor Market Experience, sponsored by the Bureau of Labor Statistics. The survey began in 1967 with 5,083 women ages 30 to 44, following them for the past three decades. By 1997, they had reached ages 60 to 74, well into the usual retirement ages. The National Longitudinal Survey seeks information about personal and family characteristics as well as the labor market experience of respondents.

### Background and literature

Although a larger proportion of men than women are employed at older ages, the labor force participation rate among older men has fallen, while that of older women has risen. In 1975, women represented 38 percent of all older workers (ages 65 and older), but by 1990, they accounted for 43 percent.<sup>1</sup> Census and Social Security data show that between 1975 and 1990, the labor force participation rate among 55- to 64-year-olds changed differently by gender. Men’s labor force participation rate fell to 68 percent from 76 percent, while that of women rose to 45 percent from 41 percent. For women older than 65 years, the labor force participation rate rose slightly to 8.7 percent from 8.2 percent, although among men older than 65 years, it fell to 16 percent from 22 percent.<sup>2</sup>

The employment of retirement-age women could follow several paths. Workers could either remain in the labor force or leave at retirement and reenter later. Joelle R. Weckerle and Kenneth S. Shultz assert that continuing work but changing to a part-time or temporary job at later ages (bridge employment) is more common among men than women partly because nonstandard work is a more typical situation for women at all ages.<sup>3</sup> For women, working part time at the usual retirement ages is an ongoing labor force participation decision rather than the continuation of work in a

Elizabeth T. Hill is Assistant Professor of Economics, The Pennsylvania State University, Mont Alto, PA  
Email: ifl@psu.edu

different pattern, more typical of men.<sup>4</sup> The part-time employment of women workers might mean working fewer weeks per year or fewer hours per week. Studies indicate that older women seek to work fewer hours on average than older men.<sup>5</sup> However, Barry T. Hersh and others found that women are pushed into flex-time and part-time jobs so that the lower hours women work may not be their idea.<sup>6</sup> Moreover, data from the 1991 Commonwealth Fund Productive Aging Survey indicated that that 19 percent of women older than age 55 who work part time would prefer full-time work.<sup>7</sup> Whether they cannot find full-time jobs or personal and family commitments keep them from full-time employment is unclear. There is some evidence that they seek flexibility, if not fewer work hours. Michael C. Barth, William McNaught, and Philip Rizzi found that many older women are employed in the service industry because more flexible hours are possible in service occupations.<sup>8</sup>

Personal characteristics, family situations, and previous labor force attachment, as well as the need for income, may affect the labor force participation of older women. Age itself is associated with less labor force participation, of course, whether through personal issues such as health status, or because of labor force participation factors such as age discrimination. Nonwhite women seem to fare worse at older ages than white women. If they work, they hold lower-paying jobs.<sup>9</sup> Moreover, poverty has been shown as more persistent among older black women.<sup>10</sup> On the other hand, a number of studies have concluded that education has a positive effect on the likelihood of working among women at older ages.<sup>11</sup>

Marital status is an important factor in the labor force participation of older women. The retirement of both spouses often occurs within a short time, although men’s health problems do not result in their wives leaving the labor force.<sup>12</sup> Steven Haider and David Loughran, studying men and women, found that being married was associated with higher labor force participation among older people.<sup>13</sup> But others have found that the majority of women who work at retirement ages are unmarried.<sup>14</sup> And the results of Franco Peracchi and Finis Welch indicate that unmarried women are less likely to leave the labor force and more likely to reenter—but for unmarried men, the opposite is true.<sup>15</sup> Marital dissolution often reduces women’s retirement income substantially so that they must often work at older ages.<sup>16</sup> Women who have remained single react more like men, working a greater amount of time at earlier ages and reducing work to a greater extent as they get older.<sup>17</sup> Monetary incentives differ among women by marital status as well. Although married women respond only to their wages in their labor force participation decision, unmarried women respond to all financial variables.<sup>18</sup> David A. Weaver also found that the presence of children and parents in the household does not affect older women’s working. Labor force attachment at younger ages may affect labor force participation at

older ages. Amy M. Pienta and others, studying a group of women aged 55 to 64, found that the more strongly family situations caused women to leave the labor force at younger ages, the less they participated in the labor force at older ages.<sup>19</sup>

It seems likely that low income provides an incentive for older women to work. The poverty problem among elderly women is extensive. Women are 70 percent more likely to spend their retirement in poverty than men.<sup>20</sup> For the over-50 age group, women make up 60 percent of the lower-income quartile.<sup>21</sup> In 1989, the income of nearly 20 percent of women over age 74 was below the poverty level. Nearly three-fifths of women aged 75 and older had annual incomes below \$10,000.<sup>22</sup> And the picture is not likely to improve. Recent studies found that some older people, especially women, are headed for trouble, having few pension or savings plans.<sup>23</sup>

**Data and summary statistics**

The NLS Mature Women’s cohort included 5,083 women when it began in 1967. By the 1997 wave of the survey—when the women had reached ages 60 to 74—2,608 of the women responded.<sup>24</sup> For most of the tables in this article, the respondents are classified by age into three classes: younger than age 65, ages 65 to 69, and age 70 or older. These age groupings are useful in that Social Security may cause work incentives to differ among them. Women under 65 cannot retire with full Social Security benefits. In addition, at the time this survey was made, Social Security benefits were reduced by working until age 70 was reached. As table 1 shows, each age class represented about a third of the total 1997 respondents.

Table 2 summarizes information about their labor force status. As expected, age was associated with less labor force participation. More than 20 percent of all respondents were identified as employed. That percentage fell with age—37 percent of women younger than age 65 participated in the labor force compared with 11 percent of respondents age 70 or older. Nearly three-fifths of all respondents were classified as retired—rising to 75 percent of women at age 70, up from 37 percent of women younger than age 65. However, table 3 reveals that 144 (or 9 percent) of those classified as retired were working at the time of the interview.<sup>25</sup>

| Age group                         | Number | Percent |
|-----------------------------------|--------|---------|
| Total women interviewed 1997 .... | 2,608  | 100     |
| Under age 65 .....                | 842    | 32      |
| Aged 65 to 69 .....               | 853    | 33      |
| Aged 70 or older .....            | 913    | 35      |

**Table 2. Employment status of respondents to the 1997 National Longitudinal Survey of Mature Women**

| Employment status        | All cases |         | Under age 65 |         | Aged 65 to 69 |         | Aged 70 or older |         |
|--------------------------|-----------|---------|--------------|---------|---------------|---------|------------------|---------|
|                          | Number    | Percent | Number       | Percent | Number        | Percent | Number           | Percent |
| Total <sup>1</sup> ..... | 2,604     | 100     | 840          | 100     | 852           | 100     | 912              | 100     |
| Employed .....           | 584       | 22.5    | 315          | 37      | 170           | 20      | 99               | 11      |
| Unemployed .....         | 14        | 1       | 10           | 1       | 3             | —       | 1                | —       |
| Retired .....            | 1,522     | 58.5    | 311          | 37      | 524           | 62      | 687              | 75      |
| Disabled .....           | 241       | 9       | 98           | 12      | 68            | 8       | 75               | 8       |
| Other .....              | 243       | 9       | 106          | 13      | 87            | 10      | 50               | 6       |

<sup>1</sup> Differs from total in table 1 due to missing information.

**Table 3. Time worked by employed or retired respondents in the 1997 National Longitudinal Survey of Mature Women**

| Labor force status                  | Mean hours            |                                     |              | Mean weeks            |                                     |                           |
|-------------------------------------|-----------------------|-------------------------------------|--------------|-----------------------|-------------------------------------|---------------------------|
|                                     | Number of respondents | Percent of respondents <sup>1</sup> | Hours worked | Number of respondents | Percent of respondents <sup>2</sup> | Weeks worked <sup>3</sup> |
| All labor force status groups ..... | 622                   | 24                                  | 30           | 818                   | 31                                  | 45                        |
| Employed .....                      | 417                   | 71                                  | 30           | 539                   | 92                                  | 51                        |
| Retired .....                       | 144                   | 9                                   | 28           | 189                   | 12                                  | 32                        |

<sup>1</sup> Percent of those in labor force status who stated work hours greater than zero.

<sup>2</sup> Percent of those in labor force status reporting weeks greater than zero since last interview.

<sup>3</sup> Weeks worked since last interview. Range of weeks was 0 to 56. Weeks greater than 56 were set equal to 56.

NOTE: Data are for respondents who reported they were employed or retired at the time of the interview.

**Table 4. Full-time and part-time work of respondents to the 1997 National Longitudinal Survey of Mature Women**

| Age group             | Full-time work |         | Part-time work |         | All hours of work |         |
|-----------------------|----------------|---------|----------------|---------|-------------------|---------|
|                       | Number         | Percent | Number         | Percent | Number            | Percent |
| All ages .....        | 325            | 52      | 297            | 48      | 622               | 100     |
| Under age 65 .....    | 218            | 66      | 114            | 34      | 332               | 100     |
| Age 65 to 69 .....    | 75             | 42      | 104            | 58      | 179               | 100     |
| Age 70 or older ..... | 32             | 29      | 79             | 71      | 111               | 100     |

NOTE: Full time = 35 or more hours per week; part time = less than 35 hours per week.

Not surprisingly, of the women who work at older ages, the proportion that worked full time diminished with age, while the proportion who worked part time increased. Table 4 reveals that two-thirds (or 66 percent) of those younger than age 65 worked 35 or more hours per week, and one-third (or 34 percent) worked less than 35 hours per week. Among women age 65 to 69, 42 percent worked full time; 58 percent, part time. Less than 30 percent of women 70 years old or older who worked were employed full time, more than 70 percent working part time. However, further analysis revealed that the average hours worked were very similar for all age groups. Full-time working women for all age groups averaged about 42 hours; part-time workers, 16 hours. If the women were pushed into part-time jobs when they preferred full-time work, they might be expected to hold more than one job. However, only 5 percent of the women who worked reported working at more than one job. This would seem to indicate that if they worked part time, that was their preference. If so, this differs from the assertion of Barth and others as well as Hersh and

others, who concluded that part-time work was not the women's choice.<sup>26</sup>

Table 5 displays the industries employing the respondents by age group as well as for all ages. About two-fifths of these older women are employed in professional services. The percentage employed in both trade and personal services rose by 10 percentage points from the youngest to the oldest age group, while employment in manufacturing fell to 3 percent from 15 percent. This result supports Barth and others that older women workers desire the flexibility of employment available in service industries.<sup>27</sup> Not surprisingly, it also supports the findings of Haider and Loughran that older workers tend not to work in more physically-demanding jobs.<sup>28</sup>

Table 6 reveals that more women of all ages were employed in clerical occupations than in other occupations. Fewer of the women worked as laborers and operators as they aged, probably because of the physical demands of such occupations. In the older age groups, a larger percentage of those who worked were employed in household services: 3 percent

**Table 5. Industries employing respondents to the 1997 National Longitudinal Survey of Mature Women**

| Industry  | All ages |         | Under age 65 |         | Age 65 to 69 |         | Age 70 or older |         |
|---|----------|---------|--------------|---------|--------------|---------|-----------------|---------|
|   | Number   | Percent | Number       | Percent | Number       | Percent | Number          | Percent |
| Total .....   | 635      | 100     | 337          | 100     | 182          | 100     | 116             | 100     |
| Professional services .....                                     | 246      | 39      | 130          | 39      | 75           | 41      | 41              | 35      |
| Trade .....   | 99       | 16      | 44           | 13      | 28           | 15      | 27              | 23      |
| Manufacturing .....   | 77       | 12      | 51           | 15      | 22           | 12      | 4               | 3       |
| Personal services .....   | 69       | 11      | 32           | 9       | 24           | 13      | 22              | 19      |
| Finance, insurance, and real estate .....                       | 43       | 7       | 28           | 8       | 8            | 5       | 7               | 6       |
| Business, repair, entertainment and recreational services ..... | 35       | 5       | 12           | 4       | 7            | 4       | 7               | 6       |
| Other <sup>1</sup> .....  | 66       | 10      | 40           | 12      | 18           | 10      | 8               | 8       |

<sup>1</sup> Includes agriculture; construction; transport, communications, public utilities; and public administration.

**Table 6. Occupations of respondents to the 1997 National Longitudinal Survey of Mature Women**

| Occupation                 | All ages |         | Under age 65 |         | Age 65 to 69 |         | Age 70 or older |         |
|----------------------------|----------|---------|--------------|---------|--------------|---------|-----------------|---------|
|                            | Number   | Percent | Number       | Percent | Number       | Percent | Number          | Percent |
| Total .....                | 630      | 100     | 336          | 100     | 181          | 100     | 113             | 100     |
| Clerical .....             | 146      | 23      | 84           | 25      | 40           | 22      | 22              | 19      |
| Other services .....       | 119      | 19      | 63           | 19      | 35           | 19      | 21              | 19      |
| Professional .....         | 97       | 15      | 49           | 15      | 30           | 17      | 18              | 16      |
| Sales .....                | 79       | 13      | 35           | 10      | 23           | 13      | 21              | 19      |
| Executive/managerial ..... | 69       | 11      | 45           | 13      | 12           | 7       | 12              | 11      |
| Household services .....   | 33       | 5       | 11           | 3       | 12           | 7       | 10              | 9       |
| Laborer/operator .....     | 48       | 8       | 27           | 8       | 17           | 9       | 4               | 3       |
| Other <sup>2</sup> .....   | 39       | 6       | 22           | 7       | 12           | 6       | 5               | 4       |

<sup>1</sup> Includes technical, farm workers, and crafts workers.

NOTE: Data include respondents providing occupation.

of women under age 65, but 9 percent at age 70 or older. As observed in Barth and others, service occupations probably provide more flexibility in hours.<sup>29</sup>

The role of educational level in the labor force participation of older women is not clear. Poverty is more likely among women with a low educational level. This might mean that less-educated older women need to work. However, a number of studies have found that it is more-educated people who tend to work at older ages,<sup>30</sup> especially among women.<sup>31</sup> Table 7 provides a breakdown by education level within each age group. The results generally agree with the other studies, although the effect differs depending on whether work is measured in hours or weeks. The table reports the percentages who were employed any weeks since the last interview, the average hours worked and the average weeks worked since the last interview. For all age groups, the percentage of those who worked any weeks rose with educational level. For the youngest age group (less than age 65), 38 percent of those with less than a high school diploma had worked, while 67 percent of those with more than a college degree had been employed. For the two older age groups, while the overall percentage of women working was less, the effect of educa-

tion on working was greater. The percentage of those with the highest educational level who worked was more than double that of the lowest educational level (22 to 49 percent for 65- to 69-year-olds, and 15 to 32 percent for those age 70 and older).

Whether work was measured as hours per week the respondent was working at the time of the interview, or whether the number of weeks she worked since the last interview was used as the measure, appears to make a difference. Using hours of work, there is a small difference by educational level. Those with more education work about the same hours as less-educated respondents in the younger than 65 age group and for the 65 to 69 age group, there is no clear pattern. However, for the oldest workers, it appears that more educated women work somewhat fewer hours (26 if less than high school, 17 hours if post college level).

If weeks worked since the last interview is used to measure work, the youngest and oldest groups differ from the middle-age group. Less-educated women among 65- to 69-year-olds worked more on average: 49 weeks compared with 45 weeks for the most highly educated. For women under 65 years of age and women 70 years old or older, the

most highly educated worked 5 to 7 more weeks than the least educated.

The overall pattern seems to be that fewer less-educated women work as they get older. If they do work, they work more hours but fewer weeks by age 70. Conversely, more-educated women work more weeks, but they work fewer hours. There appear to be more work opportunities for older, more-educated women, and they seem to have more control over hours so that they can work more regularly but for shorter time periods. This is similar to Haider and Loughran's findings for older men.<sup>32</sup> The greater number of hours worked among women of the lowest educational level at the oldest ages may be due to the need to work to obtain income.

## Regression results

Although many women are employed at older ages, more are not. If providing an incentive to engage in market work is being considered in the development of policy changes in programs such as Social Security, then the extent to which economic factors and personal characteristics or preferences affect the labor force participation decision of older women

emerges as critical. In determining which older women work, controlling for various personal, labor market, and financial factors provides a clearer picture. Age itself is likely to reduce employment, either because of a reduction of energy or because of the custom for older people not to work.<sup>33</sup> The number of household members might increase the woman's need to work or decrease the likelihood of her working, depending on the needs of the other household members. Marital status may have substantial effects on the labor market behavior of older women because of the decision about how to spend time at older ages. If the woman's husband is retired, she may want to spend her time with him. In addition, marital status usually has financial ramifications for women. Because of the typical higher retirement income of men, older married women are less likely to have financial need.

The labor force participation of many of these women has been intermittent. In fact, the average years worked by the respondents as a percentage of their total adult years (since age 18) is 56 percent. Those who have worked most of their adult life may wish to leave the labor force as soon as Social Security benefits begin, as seems the case for men. On the other hand, women with a greater labor force attachment may

**Table 7. Education and work of respondents to the 1997 National Longitudinal Survey of Mature Women**

| Age and education           | In an educational level group |         | In an educational level group who worked |                         | Usual hours on job    |                           | Weeks worked since last interview |                             |
|-----------------------------|-------------------------------|---------|--|-------------------------|-----------------------|---------------------------|-----------------------------------|-----------------------------|
|                             | Number <sup>1</sup>           | Percent | Number <sup>2</sup>                      | Percent education group | Number of respondents | Hours worked <sup>3</sup> | Number of respondents             | Percent worked <sup>4</sup> |
| <b>All Ages</b>             |                               |         |  |                         |                       |                           |                                   |                             |
| All education classes ..... | 2,606                         | 100     | 817                                      | 31                      | 621                   | 30                        | 817                               | 45                          |
| Less than high school ..... | 836                           | 32      | 193                                      | 23                      | 148                   | 29                        | 193                               | 44                          |
| High school graduate .....  | 1,086                         | 42      | 345                                      | 32                      | 272                   | 30                        | 345                               | 45                          |
| Some college .....          | 367                           | 14      | 125                                      | 34                      | 89                    | 31                        | 125                               | 44                          |
| College graduate .....      | 184                           | 7       | 88                                       | 48                      | 67                    | 28                        | 88                                | 45                          |
| Post college .....          | 133                           | 5       | 66                                       | 50                      | 45                    | 29                        | 66                                | 47                          |
| <b>Under 65 years</b>       |                               |         |  |                         |                       |                           |                                   |                             |
| All education classes ..... | 840                           | 100     | 422                                      | 50                      | 331                   | 33                        | 422                               | 45                          |
| Less than high school ..... | 229                           | 27      | 86                                       | 38                      | 73                    | 31                        | 86                                | 41                          |
| High school graduate .....  | 368                           | 44      | 193                                      | 53                      | 155                   | 34                        | 193                               | 46                          |
| Some college .....          | 118                           | 14      | 62                                       | 53                      | 46                    | 34                        | 62                                | 46                          |
| College graduate .....      | 80                            | 10      | 51                                       | 64                      | 35                    | 33                        | 51                                | 46                          |
| Post college .....          | 45                            | 5       | 30                                       | 67                      | 22                    | 32                        | 30                                | 48                          |
| <b>Age 65 to 69</b>         |                               |         |  |                         |                       |                           |                                   |                             |
| All education classes ..... | 853                           | 100     | 244                                      | 29                      | 179                   | 27                        | 244                               | 45                          |
| Less than high school ..... | 264                           | 31      | 57                                       | 22                      | 40                    | 26                        | 57                                | 49                          |
| High school graduate .....  | 353                           | 41      | 103                                      | 29                      | 80                    | 27                        | 103                               | 45                          |
| Some college .....          | 129                           | 15      | 38                                       | 30                      | 25                    | 31                        | 38                                | 43                          |
| College graduate .....      | 60                            | 7       | 23                                       | 38                      | 19                    | 25                        | 23                                | 41                          |
| Post college .....          | 47                            | 6       | 23                                       | 49                      | 15                    | 30                        | 23                                | 45                          |
| <b>Age 70 or older</b>      |                               |         |  |                         |                       |                           |                                   |                             |
| All education classes ..... | 913                           | 100     | 151                                      | 17                      | 111                   | 23                        | 151                               | 44                          |
| Less than high school ..... | 343                           | 38      | 50                                       | 15                      | 35                    | 26                        | 50                                | 43                          |
| High school graduate .....  | 365                           | 40      | 49                                       | 13                      | 37                    | 23                        | 49                                | 42                          |
| Some college .....          | 120                           | 13      | 25                                       | 21                      | 18                    | 25                        | 25                                | 42                          |
| College graduate .....      | 44                            | 5       | 14                                       | 32                      | 13                    | 20                        | 14                                | 48                          |
| Post college .....          | 41                            | 4       | 13                                       | 32                      | 8                     | 17                        | 13                                | 48                          |

<sup>1</sup> Educational level in 1997.

<sup>2</sup> Those giving educational level who worked at least 1 week since last interview.

<sup>3</sup> Those giving educational level and hours on job.

<sup>4</sup> Set equal to 56 if weeks since last interview greater than 56.

prefer employment. Race can be considered a labor market factor. Lifelong racial discrimination resulting in less advantageous work experience for black women might create their need for employment to bolster income. Nonwage income would directly impact the necessity to work, especially among a group such as older women where poverty is such a pervasive problem. The effect of education could have both economic and personal preference aspects. While low nonwage income, often associated with low educational levels, could indicate the need to work, a higher educational level might mean more desirable jobs and working conditions, and thus provide a desire for continuing employment at older ages.

There are several forms a woman's employment could take. She could work more or fewer hours per week. She could work for a few weeks in temporary jobs. She might continue working as she ages, or she might leave the labor force and return after several years. One question that arises is whether women who engage in various forms of labor force participa-

tion differ, and if so, how. Therefore, the characteristics associated with different work patterns are analyzed with the results reported in tables 8 through 11. Each table reports results for the three age classes.

Table 8 is a probit analysis of whether the woman worked any weeks since her last interview. Of the personal factors, age was negative and significant for those under age 65, but was not significant for women older than that. This may reflect the availability of a rising Social Security benefit amount from age 62 on.<sup>34</sup> Although a larger number of household members was associated with women under 65 working, this variable was not significant at age 65 or older. Married women were less likely to work among those under 65. This result differs from Haider and Loughran, who studied an older group of both men and women and found that being married was associated with working more.<sup>35</sup> Other studies have found that most women of retirement age who work are unmarried, primarily through the effect of marriage on income at retire-

**Table 8.** Probit analysis of respondents to the 1997 National Longitudinal Survey of Mature Women who worked since last interview

| Independent variable                             | All ages    |             | Under age 65 |             | Age 65 to 69 |             | Age 70 or older |             |
|--|-------------|-------------|--------------|-------------|--------------|-------------|-----------------|-------------|
|  | Coefficient | t-statistic | Coefficient  | t-statistic | Coefficient  | t-statistic | Coefficient     | t-statistic |
| Age 1997 .....                                   | -0.09       | 9.08***     | -0.13        | 2.66***     | -0.03        | 0.63        | -0.03           | 0.55        |
| Number of household members .....                | .07         | 1.78*       | .10          | 1.75*       | -.03         | .38         | .13             | 1.55        |
| Married .....                                    | -.22        | 2.42**      | -.31         | 1.98**      | -.11         | .69         | -.22            | 1.31        |
| Less than high school <sup>1</sup> .....         | -.14        | 1.36        | -.34         | 2.03**      | -.05         | .29         | .03             | .14         |
| Some college .....                               | .04         | .32         | -.22         | 1.04        | .23          | 1.13        | .03             | .13         |
| College graduate .....                           | .36         | 2.18**      | .35          | 1.44        | .15          | .48         | .58             | 1.71*       |
| Post college .....                               | .21         | 1.18        | .15          | .50         | .11          | .37         | .53             | 1.39        |
| Percent of adult years worked <sup>2</sup> ..... | 2.11        | 13.21***    | 2.24         | 8.50***     | 1.85         | 7.19***     | 2.46            | 7.01***     |
| Race <sup>3</sup> .....                          | .50         | 4.76***     | .45          | 2.65***     | .41          | 2.25**      | .78             | 3.64***     |
| Nonwage income .....                             | -.005       | 2.56**      | -.006        | 2.14**      | -.002        | .67         | -.009           | 1.46        |
| N .....  | 1,370       | ...         | 443          | ...         | 443          | ...         | 484             | ...         |
| Chi square .....                                 | 1337.88     | ...         | 425.354      | ...         | 438.476      | ...         | 444.227         | ...         |

<sup>1</sup> Educational levels compared to high school graduates.

<sup>2</sup> (Number of years worked since 18)/(age-18).

<sup>3</sup> White = 1.

\* Significant at the 0.10 percent level.

\*\* Significant at the 0.05 percent level.

\*\*\* Significant at the 0.01 percent level.

**Table 9.** Ordinary Least Squares: usual hours worked by respondents to the 1997 National Longitudinal Survey of Mature Women

| Independent variable                             | All ages    |             | Under age 65 |             | Age 65 to 69 |             | Age 70 or older |             |
|--|-------------|-------------|--------------|-------------|--------------|-------------|-----------------|-------------|
|  | Coefficient | t-statistic | Coefficient  | t-statistic | Coefficient  | t-statistic | Coefficient     | t-statistic |
| Age 1997 .....                                   | -1.24       | 6.76***     | -.33         | .46         | -1.03        | 1.06        | -3.84           | 3.10***     |
| Number of household members .....                | 1.26        | 1.77*       | 1.86         | 2.13**      | -.36         | .20         | 3.49            | 1.47        |
| Married .....                                    | -.53        | .32         | -.07         | .03         | .19          | .05         | -3.93           | .92         |
| Less than high school <sup>1</sup> .....         | -3.15       | 1.60        | -5.82        | 2.10**      | -1.40        | .38         | .66             | .12         |
| Some college .....                               | 3.25        | 1.38        | 1.78         | .49         | 3.39         | .85         | 5.82            | 1.01        |
| College graduate .....                           | -1.56       | .57         | -.86         | .24         | -4.97        | .84         | 5.69            | .80         |
| Post college .....                               | -1.31       | .41         | .07          | .02         | .36          | .06         | -10.48          | 1.11        |
| Percent of adult years worked <sup>2</sup> ..... | .23         | .07         | -5.08        | 1.02        | 7.00         | 1.21        | -1.88           | .19         |
| Race <sup>3</sup> .....                          | 1.74        | .86         | 4.49         | 1.71*       | -.18         | .05         | -4.03           | .69         |
| Nonwage income .....                             | -.08        | 2.35**      | -.09         | 2.18**      | -.12         | 1.56        | -.12            | .90         |
| Constant .....                                   | 108.13      | 8.50***     | 53.23        | 1.18        | 93.90        | 1.46        | 298.06          | 3.34***     |
| N .....  | 372         | ...         | 197          | ...         | 108          | ...         | 67              | ...         |
| R <sup>2</sup> .....                             | .14         | ...         | .07          | ...         | .09          | ...         | .23             | ...         |

<sup>1</sup> Educational levels compared to high school graduates.

<sup>2</sup> (Years worked since age 18)/(Age-18).

<sup>3</sup> White=1.

\* Significant at the 0.10 percent level.

\*\* Significant at the 0.05 percent level.

\*\*\* Significant at the 0.01 percent level.

NOTE: Data are for hours greater than zero.

ment ages.<sup>36</sup> However, their preference for time use could also come into play in that married people often retire near the time when their spouses retire.<sup>37</sup> The signs on the marriage variable were also negative for the older groups but are not significant. Educational level was not strongly associated with labor force participation if work is measured as working any weeks since the last interview. Compared with high school graduates, those with lower educational levels were less likely to work under the age of 65, but that variable was not significant in older age groups. College graduates were somewhat more likely to work at the oldest ages. The percentage of years the woman worked in her adult life was strongly associated with the labor force participation for all age groups, even those 70 years old and older. This agrees with the findings of Pienta and others.<sup>38</sup> Apparently, women who have a lifetime of labor force attachment continue that attachment at older

ages. Considering a personal characteristic likely to have labor market effects, race (white) was positive and significant for all age groups. White women in this cohort worked more than black women.<sup>39</sup> Fewer good employment opportunities may exist for older black women. Barth and others as well as Mary Bowler found that if older black women worked, their wages were lower than those of older white women.<sup>40</sup> The sign on nonwage income was negative for all age groups but significant only for those under 65. They worked less if the nonwage family income was greater.<sup>41</sup> This indicates that although poverty is a problem for older women, it is not a strong factor in whether they engage in market work or not.

Using hours worked at the time of the interview as the measure of work tells a somewhat different story. Table 9 shows the results of a regression of hours worked. Age was associated with working fewer hours only for the oldest age

**Table 10. Ordinary Least Squares: usual weeks worked by respondents to the 1997 National Longitudinal Survey of Mature Women since last interview**

| Independent variable                             | All ages    |             | Under age 65 |             | Age 65 to 69 |             | Age 70 or older |             |
|--|-------------|-------------|--------------|-------------|--------------|-------------|-----------------|-------------|
|  | Coefficient | t-statistic | Coefficient  | t-statistic | Coefficient  | t-statistic | Coefficient     | t-statistic |
| Age in 1997 .....                                | -1.08       | 9.27***     | -1.93        | 2.94***     | -0.36        | 0.55        | 0.55            | 1.33        |
| Number of household members .....                | .89         | 1.96**      | 2.02         | 2.61***     | -.69         | .86         | 1.61            | 1.96**      |
| Married .....                                    | -4.08       | 3.64***     | -7.78        | 3.60***     | -2.95        | 1.39        | -2.31           | 1.46        |
| Less than high school <sup>1</sup> .....         | -1.09       | .89         | -5.70        | 2.39**      | .92          | .40         | 1.30            | .75         |
| Some college .....                               | -.29        | .18         | -3.15        | .97         | 1.68         | .57         | -.08            | .04         |
| College graduate .....                           | 5.30        | 2.43**      | 5.77         | 1.66*       | -2.29        | .54         | 9.92            | 2.72***     |
| Post college .....                               | 5.90        | 2.46**      | 4.82         | 1.13        | 5.77         | 1.37        | 6.77            | 1.75*       |
| Percent of adult years worked <sup>2</sup> ..... | 26.58       | 14.67***    | 32.59        | 9.62***     | 24.83        | 7.63***     | 21.80           | 8.05***     |
| Race <sup>3</sup> .....                          | 7.90        | 6.26***     | 10.74        | 4.46***     | 5.78         | 2.45**      | 8.03            | 4.48***     |
| Nonwage income .....                             | -.07        | 3.40***     | -.08         | 2.42**      | -.05         | 1.26        | -.06            | 1.31        |
| Constant .....                                   | 67.16       | 8.06***     | 116.36       | 2.83***     | 23.21        | .52         | -51.97          | 1.71*       |
| N .....  | 1,552       | ...         | 510          | ...         | 501          | ...         | 541             | ...         |
| R <sup>2</sup> .....                             | .23         | ...         | .27          | ...         | .15          | ...         | .15             | ...         |

<sup>1</sup> Educational levels compared to high school graduates.

<sup>2</sup> Years worked since age 18/(age-18).

<sup>3</sup> White=1.

\* Significant at the 0.10 percent level.

\*\* Significant at the 0.05 percent level.

\*\*\* Significant at the 0.01 percent level.

NOTE: Weeks worked = 56 if greater than 56 weeks since last interview.

**Table 11. Ordinary Least Squares: years worked 1987-97 by respondents to the 1997 National Longitudinal Survey of Mature Women**

| Independent variable   | All ages    |             | Under age 65 |             | Age 65 to 69 |             | Age 70 or older |             |
|--|-------------|-------------|--------------|-------------|--------------|-------------|-----------------|-------------|
|  | Coefficient | t-statistic | Coefficient  | t-statistic | Coefficient  | t-statistic | Coefficient     | t-statistic |
| Age in 1997 .....  | -.29        | 14.33***    | -0.07        | 0.68        | -0.26        | 2.25**      | -0.18           | 2.16**      |
| Number of household members .....                            | .03         | .42         | .32          | 2.48**      | -.22         | 1.58        | .07             | .47         |
| Married .....  | -.46        | 2.36**      | -.32         | .90         | -.37         | 1.02        | -.67            | 2.16**      |
| Less than high school <sup>1</sup> .....                     | -.59        | 2.73***     | -1.36        | 3.49***     | -.60         | 1.49        | .09             | .27         |
| Some college .....   | .60         | 2.10**      | .75          | 1.40        | .96          | 1.91*       | .29             | .65         |
| College graduate .....                                       | .48         | 1.27        | 1.15         | 2.01**      | -.60         | .81         | .36             | .50         |
| Post college .....   | .72         | 1.72*       | .75          | 1.07        | .44          | .61         | .92             | 1.21        |
| Percent of adult years worked before 1986 <sup>2</sup> ..... | 4.58        | 16.01***    | 5.36         | 10.56***    | 4.99         | 9.81***     | 3.44            | 7.29***     |
| Race <sup>3</sup> .....                                      | .91         | 4.10***     | 1.11         | 2.78***     | .78          | 1.91*       | .84             | 2.36**      |
| Nonwage income .....   | -.005       | 1.45        | -.01         | 2.03**      | -.003        | .49         | .003            | .37         |
| Constant .....   | 20.50       | 14.29***    | 6.11         | .90         | 18.66        | 2.43**      | 12.53           | 2.09**      |
| N .....  | 1,552       | ...         | 510          | ...         | 501          | ...         | 541             | ...         |
| R <sup>2</sup> .....   | .28         | ...         | .27          | ...         | .22          | ...         | .13             | ...         |

<sup>1</sup> Educational levels compared to high school graduates.

<sup>2</sup> (Years worked before 1986)/(age 86-18).

<sup>3</sup> White=1.

\* Significant at the 0.10 percent level.

\*\* Significant at the 0.05 percent level.

\*\*\* Significant at the 0.01 percent level.

group. Women younger than 65 worked more hours if there were more household members, while women at older ages did not. Marital status and educational level were not related to hours worked except that less-educated women under 65 worked fewer hours. The variable for the proportion of years worked as an adult was not statistically significant with regard to hours worked at any age. Race had no clear pattern in that while white women less than age 65 worked marginally more hours, the other age groups showed no significant differences according to race. However, lower nonwage income among women under 65 years old was associated with working more hours. Although Haider and Loughran found that older women worked fewer hours,<sup>42</sup> the results of this table seem to indicate that the hours worked are probably driven more by the requirements of the job than by the characteristics of the woman worker.

Table 10 examines which women worked more than others when the number of weeks worked since the last interview is used as a work measure. With the under 65 age group, age may be an economic issue. Only women in the under 65 age group tended to work fewer weeks as their age rose. This agrees with Haider and Loughran who studied that age group.<sup>43</sup> This may be due to the fact that although some Social Security benefits are available at age 62, full benefits are available only at age 65. Women under 65 and those 70 and older tended to work more weeks if there were more members in their households, perhaps because they had more help with tasks at home or because additional income was needed for larger households. Married women under 65 worked less, and the sign was also negative for the older age groups, although the marital status variable was not significant at ages 65 and older. Generally, working more weeks tended to rise along with the woman's educational level, supporting the studies linking education and work at older ages among women.<sup>44</sup> For women younger than 65 years old, those with less than high school educations worked less compared with high school graduates while college graduates tended to work more. In the oldest group, women with college level educations or more tended to work more weeks.

The proportion of adult years worked had a strong association with weeks worked, significant at the 1-percent level. The more a woman was attached to the labor force during her life, the more weeks she tended to work at older ages. This was the case for all of the age groups. Of the labor force conditions, white women in all age groups worked more weeks, likely having better employment opportunities than black women. The higher the nonwage income, the less women under age 65 tended to work. The sign on the variable for nonwage income was negative but not significant with regard to weeks worked by those in older age groups. These results seem to indicate that these women worked less because of financial factors than personal characteristics or preferences.

Table 11 looks at the labor force participation of the respondents over the 10 years preceding the survey. The results are similar to Table 10 where the number of weeks worked since the last interview is measured. Not surprisingly, the older the women were, the fewer years out of the last 10 that they worked. Women younger than 65 tended to work if there were more members in their households, although the number of household members was not a significant variable for those aged 65 and older. Being married was associated with working fewer years only for the oldest age group. This may be because the women's husbands were more likely retired over those years. To some extent, education was associated with working more of the last 10 years for the age groups under 70 years old. Those with some college worked more at ages 65 to 69, and those with less than a high school diploma worked less at ages less than 65. Once again, the previous labor force attachment (proportion of adult years worked before 1986 in this table) was strongly associated with working from 1987 to 1997. Considering the labor market and financial issues, white women worked more years between 1987 and 1997 than black women. This was true for all of the age groups. Nonwage income was negative and significant only for women under 65 years of age. There seems to be little evidence of these women leaving the labor force and returning to it, a path often followed by men. If women left and eventually returned to the labor force, the proportion of adult years worked would likely show a weaker association with working more out of the last 10 years. This result supports the finding of Honig and Weckerle and Shultz that women ~~engage in bridge employment less often than men.~~<sup>45</sup> Rather, they continue to choose to participate in the labor force, often part time.

### Does "retired" mean "not working?"

The assumption that being retired means not working is not necessarily correct. Moreover, the descriptive statistics of the 1997 wave of the NLS for this cohort of older women show that if women classified as retired work, they work nearly as many hours as those classified as employed. However, among the women who work at older ages, more work part time as they get older. Not surprisingly, the industries and occupations employing the women reveal the move toward performing less physical work as they age, along with the need or desire for jobs that include more flexible hours. Tables 8 through 11 compare the personal and preference factors with the labor market and economic factors. Results lead to the conclusion that even though poverty may be a real possibility, the personal or noneconomic aspects of the women's lives appear generally more influential than economic factors on whether she works at older ages. This result differs somewhat, depending on the measure used to determine the extent



of labor force participation. It is weaker when hours worked is the measure, seeming to indicate that hours are more often determined by the needs of the job. When weeks worked, working at all recently, or working more of the last 10 years are used as measures, the strength of personal factors appears greater.

Economic issues do have some effect. White women work more. If there is no systematic difference in attitudes about market work between older white and older black women, racial discrimination may be strong with regard to the black women in this cohort. Less family income (family income without the woman's wage) is somewhat associated with her working more weeks and more years out of the last 10 years. However, the assertion of Honig that labor force participation is an ongoing personal decision among women—and that of Haider and Loughran that non-economic factors are more important among older people in work decisions—seems borne out by the results of this study.<sup>46</sup> Even controlling for income, married women are less likely to work, perhaps because of preferences for the use of time. Although David A. Weaver found no effect from parents or children in the household, these results show that living with more household members is generally associated with greater labor force participation.<sup>47</sup>

(These may be household members who help with chores at home rather than needing the woman's care.)

It appears that older women who work do so because they prefer to engage in market work. Those with more education are likely to work more weeks but fewer hours. They probably hold jobs they enjoy and have more flexibility about their work schedules. Market work for this cohort seems to have been a part of their lives but not an overriding part. On average, the proportion of their adult years they worked is not much over half. However, if market work has been a part of their lives, it is strongly associated with their labor force participation at older ages.

Compared to this cohort, more recent cohorts of women have experienced a stronger lifetime labor force attachment. Whether the factors associated with working at older ages remain similar, or change with future cohorts of women who have more continuous work histories, should be addressed in future research in order to clarify the effect of policy recommendations. If these results hold for future cohorts of women, changing the Social Security program or other programs to provide work incentives would probably be more successful with older women if they focused on providing flexibility in work situations rather than financial incentives. □

## Notes

<sup>1</sup> John R. Besl and Balkrishna D. Kale, "Older workers in the 21st century: active and educated, a case study," *Monthly Labor Review*, June 1996, pp. 18–28.

<sup>2</sup> Patrick J. Purcell, "Older workers: employment and retirement trends," *Monthly Labor Review*, October 2000, pp. 19–30.

<sup>3</sup> Joelle R. Weckerle and Kenneth S. Shultz, "Influences on the bridge employment decision among older USA workers," *Journal of Occupational and Organizational Psychology*, September 1999, pp. 317–329.

<sup>4</sup> Marjorie Honig, "Partial retirement among women," *Journal of Human Resources*, Vol. 20, fall 1985, pp. 613–621.

<sup>5</sup> Steven Haider and David Loughran, "Elderly labor supply: work or play," Working paper CRR WP 2001–04 (Chestnut Hill, MA, Center for Retirement Research at Boston College, 2001); Michael C. Barth, William McNaught, and Philip Rizzi, "Older Americans as workers," in Scott A. Bass, ed., *Older and Active* (New Haven, CT, and London, Yale University Press, 1995), pp. 35–70.

<sup>6</sup> Barry T. Hersch, David A. MacPherson, and Melissa A. Hardy, "Occupational age structure and access for older workers," *Industrial and Labor Relations Review*, April 2000, pp. 401–418.

<sup>7</sup> Michael C. Barth, William McNaught, and Philip Rizzi, "Older Americans...."

<sup>8</sup> *Ibid.*

<sup>9</sup> *Ibid.*; Mary Bowler, "Women's earnings: an overview," *Monthly Labor Review*, December 1999, pp. 13–21.

<sup>10</sup> Donald O. Parsons, *Poverty Dynamics among mature women: evidence from the National Longitudinal Surveys 1967–1989*, NLS Report 95–95 (U.S. Department of Labor, Bureau of Labor Statistics, 1995).

<sup>11</sup> Steven Haider and David Loughran, "Elderly labor supply...."; Francis G. Caro and Scott A. Bass, "Increasing volunteering among older

people," in Scott A. Bass, ed., *Older and Active* (New Haven, CT, and London, Yale University Press, 1995), pp. 71–96; Franco Peracchi and Finis Welsh, "Labor force transition of older workers," *Journal of Labor Economics*, April 1994, pp. 210–242; Giora Hanoch and Marjorie Honig, "Retirement, wages, and labor supply of the elderly," *Journal of Labor Economics*, April 1983, pp. 131–152.

<sup>12</sup> Richard W. Johnson and Melissa M. Favreault, "Retiring together or retiring alone," Working paper CRR WP 2001–01 (Chestnut Hill, MA, Center for Retirement Research at Boston College, March 2001); Seongsu Kim and Daniel C. Feldman, "Working in retirement: the antecedents of bridge employment and its consequences for the quality of life in retirement," *Academic of Management Journal*, December 2000.

<sup>13</sup> Steven Haider and David Loughran, "Elderly labor supply...."

<sup>14</sup> John R. Besl and Balkrishna D. Kale, "Older workers in the 21st century...."; Marjorie Honig, "Partial retirement...."

<sup>15</sup> Franco Peracchi and Finis Welsh, "Labor force transition...."

<sup>16</sup> Donald O. Parsons, *Poverty Dynamics among mature women*; John R. Besl and Balkrishna D. Kale, "Older workers in the 21st century...."

<sup>17</sup> "Work and family: work patterns of women near retirement," Report 830 (Bureau of Labor Statistics, October, 1992), pp. 1–6.

<sup>18</sup> David A. Weaver, "The work and retirement decisions of older women: A literature review." ORS Working Paper Series No. 61. (Social Security Administration, Office of Economic Research, May 1994).

<sup>19</sup> Amy M. Pienta, Jeffrey A. Burr, and Jan E. Mutchler, "Women's labor force participation in later life: the effects of early work and family experience," *Journal of Gerontology*, Vol. 49, no. 5, 1994, S231–S239.

<sup>20</sup> Donald O. Parsons, *Poverty Dynamics among mature women*.

<sup>21</sup> J.S. Chatzky, "How's the nest egg," *USA Weekend*, July 22, 2001, p. 20.

<sup>22</sup> Michael C. Barth, William McNaught, and Philip Rizzi, "Older Americans...."

<sup>23</sup> Jon E. Hilsinroth, "Retirees becoming wealthier, healthier," *Wall Street Journal*, May 23, 2001, pp. A2 and A6; Patrick J. Purcell, "Older workers: employment...."

<sup>24</sup> Although the women were selected originally from age range 30 to 44, by 1997 there were a few whose ages were outside the expected range (60 to 74), both younger and older.

<sup>25</sup> The questionnaire asked "are you retired from a job or business?" If a woman responded affirmatively, she was classified as retired.

<sup>26</sup> Michael C. Barth, William McNaught, and Philip Rizzi, "Older Americans...."; Barry T. Hersch, David A. MacPherson, and Melissa A. Hardy, "Occupational age structure...."

<sup>27</sup> Michael C. Barth, William McNaught, and Philip Rizzi, "Older Americans...."

<sup>28</sup> Steven Haider and David Loughran, "Elderly labor supply...."

<sup>29</sup> Michael C. Barth, William McNaught, and Philip Rizzi, "Older Americans...."

<sup>30</sup> Francis G. Caro and Scott A. Bass, "Increasing volunteering..."; Franco Peracchi and Finis Welsh, "Labor force transition..."; Giora Hanoch and Marjorie Honig, "Retirement, wages...."

<sup>31</sup> John R. Besl and Balkrishna D. Kale, "Older workers in the 21st century...."

<sup>32</sup> Steven Haider and David Loughran, "Elderly labor supply...."

<sup>33</sup> It is likely that age discrimination would already have had its effect by the time the women reached the ages in this wave of the survey.

<sup>34</sup> Age may also reflect health problems. When a variable for health-limiting work was included, the sign was negative but the variable was not statistically significant for any age group.

<sup>35</sup> Steven Haider and David Loughran, "Elderly labor supply...."

<sup>36</sup> John R. Besl and Balkrishna D. Kale, "Older workers in the 21st century..."; Marjorie Honig, "Partial retirement...."

<sup>37</sup> Richard W. Johnson and Melissa M. Favreault, "Retiring together..."; Seongsu Kim and Daniel C. Feldman, "Working in retirement...."

<sup>38</sup> Amy M. Pienta, Jeffrey A. Burr, and Jan E. Mutchler, "Women's labor force participation...."

<sup>39</sup> All except 34 women were either white or black. The 34 whose race was 'other' were left out of this analysis. Removing race from the regression did not substantially change the results.

<sup>40</sup> Michael C. Barth, William McNaught, and Philip Rizzi, "Older Americans...."; Mary Bowler, "Women's earnings...."

<sup>41</sup> Nonwage income is total family income without the wage income of the respondent. When nonwage income was replaced with Social Security amounts, the sign was negative but it was not significant for any age group. Using pension income reduced the sample size substantially.

<sup>42</sup> Steven Haider and David Loughran, "Elderly labor supply...."

<sup>43</sup> *Ibid.*

<sup>44</sup> Francis G. Caro and Scott A. Bass, "Increasing volunteering..."; Franco Peracchi and Finis Welsh, "Labor force transition..."; Giora Hanoch and Marjorie Honig, "Retirement, wages...."

<sup>45</sup> Marjorie Honig, "Partial retirement..."; Joelle R. Weckerle and Kenneth S. Shultz, "Influences on the bridge employment decision...."

<sup>46</sup> Marjorie Honig, "Partial retirement..."; Steven Haider and David Loughran, "Elderly labor supply...."

<sup>47</sup> David A. Weaver, "The work and retirement decisions of older women...."