Earnings of Couples: A Cohort Analysis

*by Howard M. Iams**

This article looks at Social Security covered earnings of wives relative to their own husbands, using interview responses from the 1990 Survey of Income and Program Participation linked to Social Security Administration records of covered earnings. It examines earnings at ages 22-31, 22-41, and 22-51 for birth cohorts of wives born in the 1930's, 1940's and 1950's. More recent cohorts of wives had more years of earnings and higher levels of indexed earnings. As expected, differences in earnings of wives relative to their husbands declined among more recent cohorts. Nevertheless, if these earnings patterns continue through retirement age, the majority of wives born in the 1930's and 1940's and two-fifths of those born in the 1950's can expect to receive spouse benefits, and, if widowed, most can expect to receive widow benefits based on their husband's covered earnings. The article explores which characteristics are significantly associated with wives having low earnings relative to their husbands.

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The majority of older women receive Social Security benefits based partly or totally on their husband's earnings. About three-fifths of current beneficiary women aged 62 or older received benefits either partly or totally as wives or widows based upon the earnings records of their husbands (Lingg 1990). One-fifth received retired-worker benefits as well as some wife or widow benefits because their retired-worker benefits were less than the benefits that they received as wives or widows. (This type of benefit receipt is known as dual entitlement.) Over time, the percentage of older women with exclusively wife and widow benefits has decreased, while the percentage with dual entitlement has increased (chart 1). The proportion exclusively with retirement benefits has been roughly stable between 1960 and 1988 at almost two-fifths.

Wife and widow benefits are based on marital status and in some cases on marital history. If age requirements are met, current wives of insured workers can receive spouse benefits and widows of insured workers can receive survivor benefits. Divorced women must have at least 10 years of marriage to be eligible for these benefits.

Social Security benefits are based on a lifetime of covered earnings.[1] In the fully mature Social Security system serving persons born after 1928, an individual must be aged 62 and have at least 40 quarters of Social Security covered earnings to be eligible for a retired-worker benefit. The benefit is based on the 35 years of highest earnings from age 22 to age 61, after dropping the five lowest years. Any years with higher earnings before age 22 or after age 61 may be substituted for earnings from ages 22 to 61. The earnings are wage indexed, and an average of indexed monthly earnings (AIME) is calculated. The basic benefit--the primary insurance amount (PIA)—is derived from the AIME, giving greater weight to lower earnings.[2] If the highest 35 years of earnings include years with low or zero earnings, they are averaged into the AIME, which lowers benefits.

The types of benefits that wives receive depend on their history of covered earnings relative to their own husbands. Disregarding adjustments for early or late re-

tirement, a wife beneficiary is eligible for half of a worker's basic benefit (that is, primary insurance amount), while a widow beneficiary is eligible for the full basic benefit of the deceased spouse. When an aged wife or widow of an insured worker is also entitled to her own retirement benefit based on her own earnings record, the wife or widow benefit is reduced by an amount equal the retirement benefit. She receives the higher of her own worker benefit or the wife or widow benefit.[3]

Women's labor-force activity has changed substantially over time. Perhaps the "single most important development in the labor market over the past 40 years has been the increase in the number of women, especially married women, at work for pay" (Gunderson 1989, p. 46). While only 29 percent of adult women participated in the labor force in 1950, fully 58 percent did so in 1990 (Goldin 1990; Levine and Mitchell 1991).[4]

Compared with earlier cohorts, more recent cohorts of young women are increasingly remaining in the labor force (Hill and O'Neill; 1990). This increased commitment to the labor force applies even when they first become mothers. O'Connell (1990) found that first-time mothers in the early 1980's worked longer into their pregnancy and returned to work sooner after childbirth than did first-time mothers in the early 1960's. While only 14 percent had returned to work within 12 months of childbirth in the early 1960's, 53 percent had done so in the early 1980's. The increasing presence of younger women in the labor force and their increasing work experience lead some to expect increases in women's earnings relative to those of men (Hill and O'Neill 1990; Smith and Ward, 1984).

For the most part, we do not know how the accumulated work experience and earnings of wives relative to their husbands vary over time and across age groups. This is the case because most data measure experience at one point in time, or do not have large enough sample sizes to make reliable estimates by birth cohort.[5] But in addition, the common research approach compares the earnings of women with those of men rather than comparing the earnings of wives with those of their own husbands.

The changing labor-force participation rates of women may have resulted in greater accumulated earnings and smaller gender differences in earnings in more recent birth cohorts. Such change could affect the types of Social Security benefits for which women will become eligible. This analysis examines partial work histories of husbands and wives in various birth cohorts to identify the extent of expected changes in women's benefits.[6]

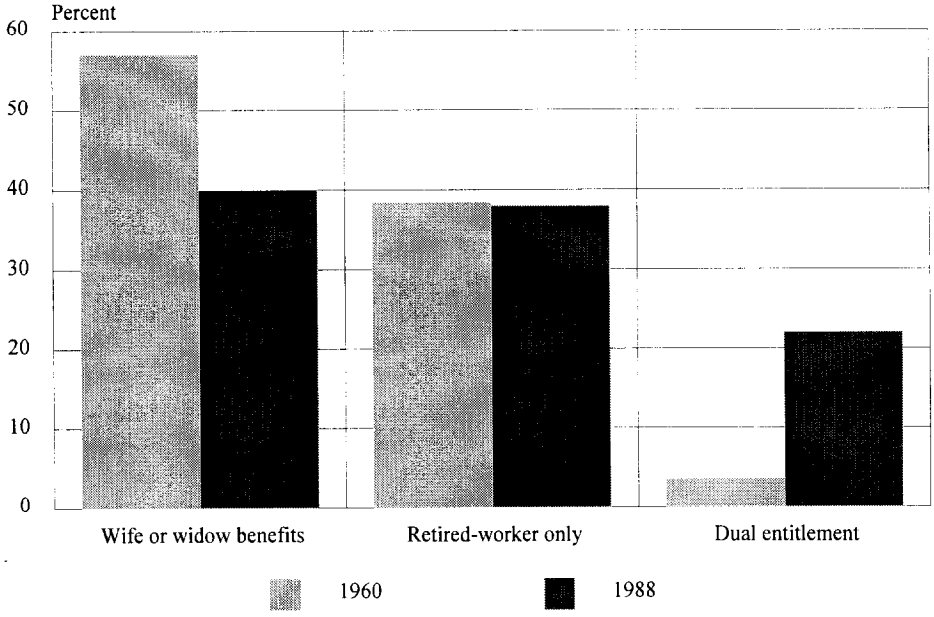
Data Source

This analysis is based on data from the 1990 Survey of Income and Program Participation (SIPP), which has been matched to the Social Security Administration's Summary Earnings Record (SER) for 1951-1990. The SIPP is a nationally representative survey containing a full range of socioeconomic variables, and historical information on labor-force participation and birth dates of first and last children. Sample persons were interviewed in February 1990, and reinterviewed every 4 months over 2-1/2 years until September 1992. This analysis draws on data from the second interview that included information on work, marital, and fertility histories. About 91 percent of adults in the survey had valid Social Security numbers that could be matched to the Summary Earnings Record. The analysis is restricted to the survey sample with a matchable SER. The SER contains a record of each person's own covered earnings and quarters of coverage for each year beginning with 1951. These earnings form the basis for benefit payments from the person's own earnings. The linked data file is tightly restricted by tax and privacy legislation for use by Census Bureau and Social Security Administration personnel who are special sworn agents of the Bureau.

This analysis links information on each wife and her husband at the time of the second 1990 SIPP interview. Formerly married women are not included because matching is impossible. Most women in the survey (about 69 percent) were married with a husband present (table 1). The number of children ever-born decreased among more recent birth cohorts of married women with a husband present in the household. This occurred mainly because a decreasing percentage of wives had three or more children and an increasing percentage of wives were childless.

The focus here is on accumulated work experience and earnings of particu-

Chart 1.-- Type of benefit among current aged beneficiary women, 1960 and 1988



Source: Lingg 1990.

Table 1.—Marital status and number of children ever born to currently married women, by birth year

Birth year	Marital status							Number of children ever born			
		Married									
	Total	Spouse present	Spouse absent	Widowed	Divorced	Separated	Never married	None	One	Two	Three or more
1930–34	4,996	69	1	13	12	3	4	5	11	24	60
1935–39	5,405	69	1	8	14	3	5	6	7	28	58
1940–44	6,416	69	1	4	17	4	5	7	12	37	43
1945–49	8,232	70	0	3	15	4	8	9	15	42	34
1950–54	9,293	69	0	1	14	4	12	13	15	40	33
1955–59	10,158	66	1	1	11	5	16	16	20	38	25

Source: 1990 SIPP.

Table 2.—Percentage distribution of years with covered earnings at wife's age

Birth year	Wife's earnings at—				Husband's earnings at—			
	Ages 22–51							
	None	1–7	8–23	24–30	None	1–7	8–23	24–30
1930–34	6	26	55	13	0	5	14	81
1935–39	4	18	57	21	0	3	14	83
	Ages 22–41							
	None	1–4	5–16	17–20	None	1–16	17–20	...
1930–34	11	25	53	11	1	18	82	...
1935–39	6	18	60	16	1	15	85	...
1940–44	5	16	55	24	1	18	81	...
1945–49	4	12	50	34	1	19	80	...
	Ages 22–31							
	None	1–2	3–8	9–10	None	1–8	9–10	...
1930–34	26	18	41	14	1	29	70	...
1935–39	17	22	45	16	1	18	81	...
1940–44	13	17	46	24	1	17	82	...
1945–49	10	14	45	31	2	19	78	...
1950–54	6	9	40	45	2	19	79	...
1955–59	5	7	36	52	1	20	79	...

Source: 1990 SIPP matched with Social Security Administration Summary Earnings Record.

lar age groups in different birth groups. The oldest wives in the analysis were born in 1930 and the youngest in 1959. These years were chosen because covered earnings were recorded annually beginning in 1951, when women born in 1930 were age 21, and because 1990 earnings were the latest available, when women born in 1959 were age 31. Analysis was made of covered earnings from ages 22 to 31 for all couples (using wife's age to define a couple's age) and from ages 22 to 41 and 22 to 51 for birth cohorts using available data. Age 22 is the beginning point of the period of earnings for Social Security benefit computation. Thus, ages 22-31 begin the first 10 years of covered earnings, ages 22-41 begin the first 20 years, and ages 22-51 begin the first 30 years of covered earnings. The early years of the worklife are a critical period when family responsibilities often conflict with the demands of paid employment and when more recent cohorts of mothers have been more likely to remain in the labor force and accrue more work experience. The analysis includes couples for which the wife or her husband had at least one year of nonzero covered earnings when the wife was ages 22-31.

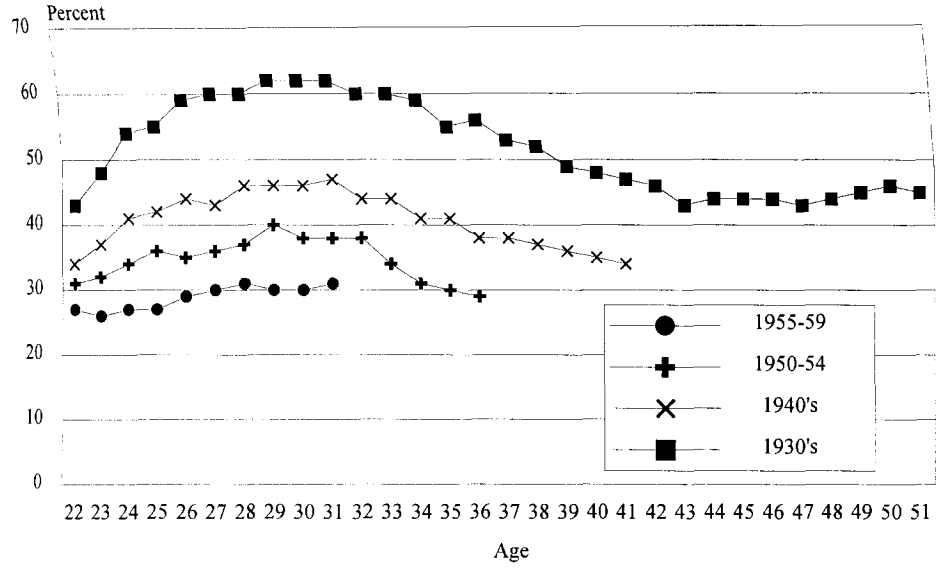
Years With Covered Earnings

Increasing labor-force participation by recent cohorts of wives includes both a decrease in the proportion with no earnings and an increase in the number of years with earnings. Table 2 identifies the number of years with covered earnings at ages 22-31, ages 22-41 and ages 22-51.

The percentage with no earnings at ages 22-31 years decreased from 26 percent of wives born in 1930-34 to 5 percent of wives born in 1955-59. At ages 22-41, the percentage decreased from 11 percent of wives born in 1930-34 to 4 percent of wives born in 1945-49. The reduction in the proportion of wives with no earnings among more recent birth cohorts also can be seen at

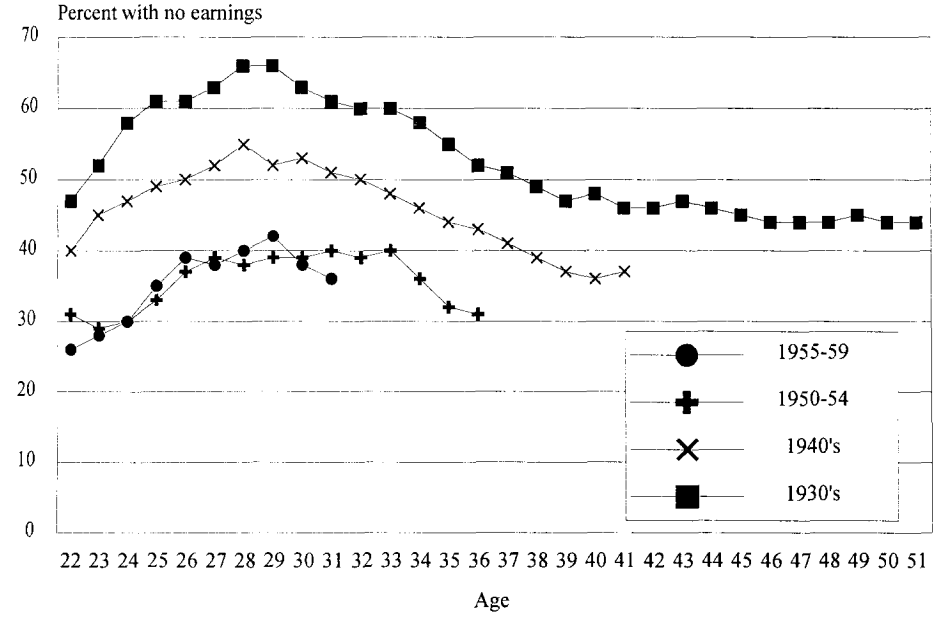
specific ages. Among those remaining childless through 1990, a much higher percentage born in the 1930's had no earnings at specific ages than did wives born in the 1940's or 1950's (chart 2). Among wives becoming mothers by 1990, the percentage without earnings approached 70 percent among those born in the 1930's, compared with only 40 percent among those born in the 1950's (chart 3). This finding indicates that being a nonworking wife during at least some of her early years of marriage was the norm for wives born in the 1930's, particularly if they were mothers or became mothers; and indicates that being a working wife was much more common for wives born in the 1950's, even if they were mothers or became mothers.

Chart 2.-- Percent of childless wives with no earnings



Source: 1990 SIPP matched with Social Security Administration Summary Earnings Record.

Chart 3.-- Percent of wives with children



Source: 1990 SIPP matched with Social Security Administration Summary Earnings Record.

More recent cohorts of wives also had a greater work attachment. Largely complete work attachment is defined here as nonzero earnings in 80 percent or more of the years in the first decade, first two decades, and first three decades of the Social Security benefit computation period (that is, 9-10 years at ages 22-31, 17-20 years at ages 22-41, and 24-30 years at ages 22-51). The percentage of wives with a largely complete attachment to the labor force at ages 22-31 increased from 14 percent of wives born in 1930-34 to 52 percent of wives born in 1955-59. The percentage at ages 22-41 increased from 11 percent of wives born in 1930-34 to 34 percent of wives born in 1945-49.

Greater work attachment of a cohort remained stable across ages. For example, the percentage of wives born in 1930-34 who had 80 percent or more years with earnings was 14 percent at ages 22-31 and 13 percent at ages 22-51. The respective figures for the 1935-39 cohort were 16 percent and 21 percent. This suggests that a relatively fixed subgroup has a more complete work attachment within a cohort.

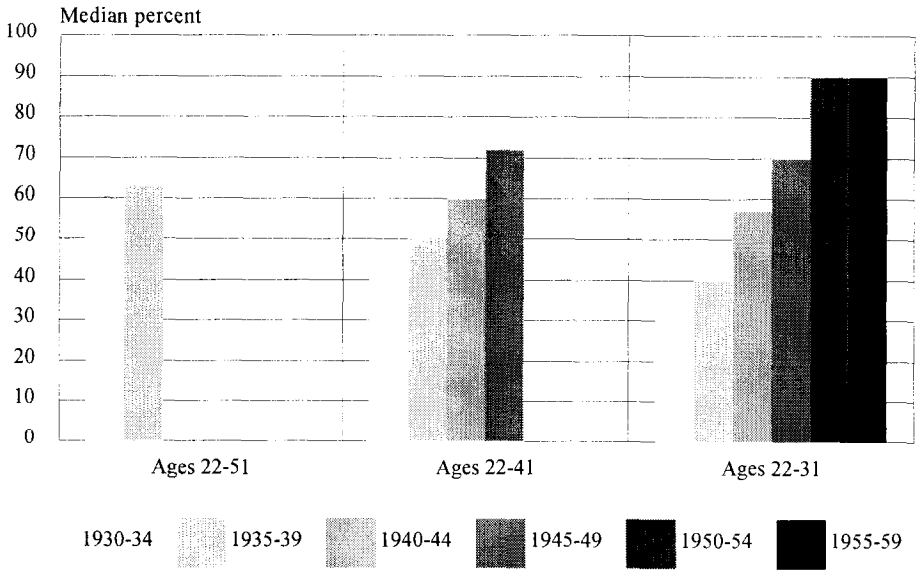
Wives in more recent cohorts had more years with covered earnings relative to their husbands (table 2).[7] As can be seen in chart 4, the number of years with covered earnings was more similar between wives and husbands among more recent cohorts. At ages 22-31, the median percentage was 90 among wives born in the 1950's, compared with 57-70 percent among those born in the 1940's, and with 33-40 percent among wives born in the 1930's. At ages 22-41, the median was 60-72 percent among wives born in the 1940's, compared with only about 40-50 percent among wives born in the 1930's. Thus, more recent cohorts have more complete work histories relative to their husbands in the first half of the Social Security benefit computation period.

Average Earnings

Do more complete work histories of women contribute to higher earnings levels? As shown in table 3, the mean of

average monthly covered earnings of wives at ages 22-31 steadily increased among more recent birth cohorts, more than doubling from $308 in the 1930-34 cohort to $832 in the 1955-59 cohort.[8] The percentage of wives earning over $750 per month increased among more recent cohorts, almost tripling from 14 percent to 48 percent. In the same years, the mean of average monthly covered earnings of husbands increased among more recent cohorts but not as rapidly as those of their wives. Average earnings of both husbands and wives also increased within cohorts when the calculation period was extended from ages 22-31 to ages 22-41 and to ages 22-51.

Chart 4.-- Wife's years of covered earnings as a percent of her husband's



Source: 1990 SIPP matched with Social Security Administration Summary Earnings Record.

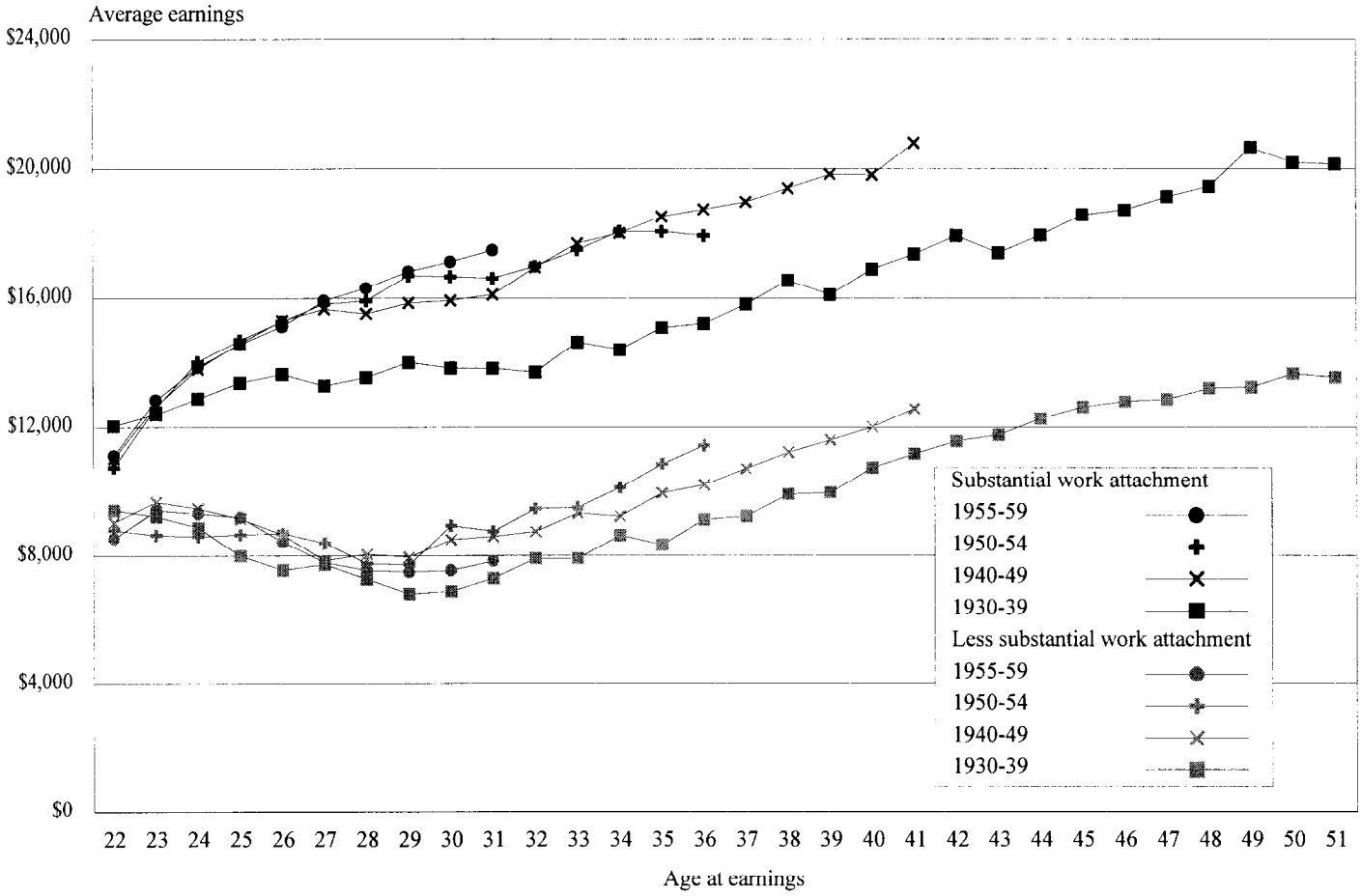
One would expect more recent cohorts of women to accumulate higher earnings over the years partly because of their greater work attachment. Chart 5 presents the average of indexed annual earnings for working wives at specific ages in various birth cohorts. Separate estimates were made for those with a substantial work attachment and for those with less substantial work attachment.[9] The average earnings of working wives with substantial work were markedly higher at each age than the average earnings of wives with less substantial work. The average earnings of working wives with less substantial work

Table 3.—Mean and percentage distribution of average monthly indexed earnings for wives and husbands, at wife's age

Birth year	Wife					Husband				
	Mean	Percentage distribution				Mean	Percentage distribution			
		$0	$1–$250	$251–$750	More than $750		$0	$1–$250	$251–$750	More than $750
	Earnings at ages 22–51									
1930–34	$416	7	38	37	18	$1,619	0	5	8	86
1935–39	555	4	36	32	27	1,842	0	4	8	88
	Earnings at ages 22–41									
1930–34	$334	11	44	33	12	$1,466	1	5	7	87
1935–39	447	7	38	36	19	1,684	1	3	9	88
1940–44	534	5	33	36	25	1,866	1	5	7	88
1945–49	685	4	30	29	37	1,942	1	4	8	86
	Earnings at ages 22–31									
1930–34	$308	26	34	26	14	$1,301	1	6	12	81
1935–39	378	17	40	25	18	1,452	1	5	10	84
1940–44	456	14	33	31	23	1,573	1	6	7	85
1945–49	574	11	32	25	32	1,670	2	6	9	84
1950–54	730	6	24	28	41	1,745	2	6	10	82
1955–59	832	6	22	24	48	1,804	1	5	10	83

Source: 1990 SIPP matched with Social Security Administration Summary Earnings Record.

Chart 5.-- Annual earnings of wives by birth year and age at earnings



Source: 1990 SIPP matched with Social Security Administration Summary Earnings Record.

remained relatively constant across age and cohort at about $10,000. In contrast, among wives born in the 1940's and 1950's, the average earnings of wives with substantial work increased about $12,000 to $15,000 at ages 22-25, and then gradually increased to $20,000 by age 40. The earnings pattern of wives with a substantial work attachment is similar across birth cohorts, although the wives born in the 1930's had lower earnings than the 1940's and 1950's cohorts. This pattern suggests that changes in the extent of substantial work attachment may partially account for cohort differences in earnings.

Indexed earnings of each wife were compared with those of her husband in the same period (ages 22-31, 22-41, and 22-51). Few wives earned as much as their husbands. Only about 10-20 percent had earnings equal to or greater than their husbands (table 4 and chart 6). Increasing percentages of wives in more recent cohorts earned as much and earned at least half as much as their husbands in covered employment.

About two-thirds of the oldest cohort, compared with two-fifths of the youngest cohort, had earnings 30 percent or less than that of their husbands, which is the range to qualify for higher wife benefits than worker benefits. The percentage of wives with no covered earnings sharply decreased among more recent birth cohorts. The percentages of wives with low, nonzero earnings of 1-30 percent of their husbands earnings were lower among wives born in the 1950's than among those born in the 1940's and 1930's (about 33-36 percent, compared with 38-45 percent).[10]

To what extent do the observed patterns of couple earnings and benefits forecast the patterns at retirement age? Unfortunately, we cannot know the future, and the early years of marriage are more likely to include earnings decreases due to childrearing. However, the patterns observed within a birth cohort have remained relatively stable over the first 10, 20, and 30 years of the computation period (table 4). For example, the percentages of wives born in 1930-34 with indexed earnings at 30 percent or less than their husbands earnings were 68 percent at ages 22-31, 71 percent at ages 22-41, and 66 percent at ages 22-51. The respective figures for the 1935-39 cohort were 65 percent, 65 percent, and 58 percent. For wives born in 1940-44, these percentages were 60 percent at ages 22-31 and 60 percent at ages 22-41. Similar stability can also be seen in the percentages of wives who earned as much as their husbands. Consequently,

the pattern observed at ages 22-31 may be suggestive of future earnings patterns.

Occupations

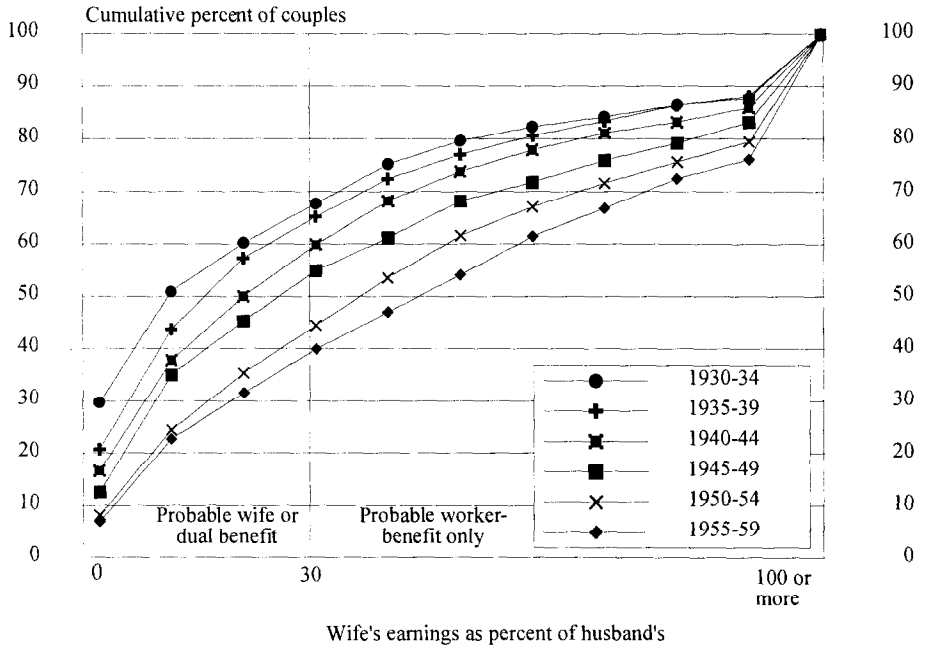
Occupations can indicate the potential for change in future earnings. While persons working in some occupations generally have rising earnings over their careers, such as doctors or lawyers, others do not, such as secretaries or cashiers. Table 5 identifies the major occupations of wives by birth cohort and the most frequent detailed occupations of wives born in the 1950's.[11] The occupational distributions were similar across the birth cohorts. The most prevalent category was "administrative support including clerical," which employed 28 percent of wives born in 1930-1959. Within this category, the most common occupations of wives born in the 1950's were secretaries, bookkeepers and accounting and auditing clerks, typists, general office clerks, bank tellers, and receptionists. Another 16 percent were in service occupations—most often as waitresses, nurses aides, cooks except short order, or maids. About 13 percent were in professional occupations—most commonly as teachers or registered nurses—and about 11 percent were in sales occupations—most commonly as cashiers. Only a small percentage of wives worked in other major occupations. Thus most wives had occupations that we expect not to have dramatically higher earnings growth over a career.

Table 4.—Wife's indexed earnings as a percent of husband's, at wife's age

Birth year	Total percent	0–30			31–49	50–99	100 or more
		Total	0	1–30			
	Earnings at ages 22–51						
1930–34	100	66	10	56	12	13	8
1935–39	100	58	7	51	15	15	12
	Earnings at ages 22–41						
1930–34	100	71	14	57	11	10	8
1935–39	100	65	9	56	11	14	9
1940–44	100	60	8	53	12	17	10
1945–49	100	53	6	47	14	18	15
	Earnings at ages 22–31						
1930–34	100	68	30	38	12	10	10
1935–39	100	65	21	45	11	14	10
1940–44	100	60	17	43	14	15	12
1945–49	100	55	12	42	13	17	15
1950–54	100	44	8	36	16	22	18
1955–59	100	40	7	33	14	26	20

Source: 1990 SIPP matched with Social Security Administration Summary Earnings Record.

Chart 6.-- Wife's earnings as a percent of husband's at ages 22-31



Source: 1990 SIPP.

Couples With Low Earnings Ratios

To assess the implications of the earnings patterns of couples, one must identify the characteristics associated with couples having wives with low earnings relative to their husbands. For purposes of this discussion, wives having covered earnings at ages 22-31 of 30 percent or less than the earnings of their husbands are considered to be have a low earnings ratio. As previously discussed, this percentage usually results in a higher wife benefit than a retired-worker benefit.

The variables examined here included sociodemographic characteristics of the wife, her husband's covered earnings,[12] and her work experience when she was aged 22-31. These variables were chosen, for the most part, because they relate to the choices women make between labor-force participation and time spent at home. The characteristics of the wife included two measures of minority status (black, nonblack omitted and (Hispanic, non-Hispanic omitted), number of children ever born (none omitted, 1, 2, 3 or more), wife's education (fewer than 12 years omitted, 12 years, more than 12 years), and years o

marriage. Minority status is expected to relate to relative earnings levels. Number of children, education, and years of marriage all indicate a woman's tendency to spend time in the labor force or at home. In addition, education relatesto earnings potential. Studies of women's labor-force participation in the 1960's and 1970's found higher rates of participation among minority women, more educated women, and mothers of fewer children.

The accumulated earnings of the husband is measured in quartiles (highest, third, the median and below omitted). Wives with higher-earning husbands by definition must earn more to avoid having low earnings relative to their husbands. In addition, families with higher-earning husbands can better afford a nonworking wife. Finally, the wife's years of work experience, as measured by years with covered earnings (0-4 omitted, 5-8, 9-10), indicate fewer years with zero earnings and greater work attachment and greater on-the-job experience.

Variables were entered sequentially into logit models in order to separately measure the effects of sociodemographic characteristics, the husband's earnings, and the wife's work experience. Models were estimated separately for wives born in the 1930's, the 1940's, and the 1950's to determine whether changes have occurred in the importance of these characteristics.[13]

In all cohorts, the likelihood of a wife having low relative earnings were significantly related to years of education, years of marriage, number of children, and husband's accumulated earnings level (table 6). Better educated wives were significantly less likely to have low earnings relative to their husbands. Wives with more years of marriage, with more children, and with higher-earning husbands were significantly more likely to have low earnings relative to their husbands.

For the most part, factors affecting relative earnings levels were consistent across cohorts. However, there were some differences across cohorts in the effects from the number of children, education, and race. When the wife's years of work were added to the model, several effects failed to be significant in different cohorts: In the 1930's, women with one or more children; in the 1940's, black women and having one child; and in the 1950's, women with 12 years of education. This suggests that these characteristics influence low relative earnings by affecting the wife's work experience.

In the partial models, black wives in the 1940's and 1950's were significantly less likely to have low relative earnings. Race was not significant in the 1930's cohort, nor for the 1940's cohort when work experience was added to the model, nor for the 1950's cohort when husband's earnings levels were included in the model. This suggests that, beginning with the 1940's cohorts, race contributed to low earnings ratios by influencing husband's earnings and wife's work experience. Being of Hispanic origin was not significant.

The importance of years of work experience by wives can be seen by how much this one factor improved the power of the model to predict low relative earnings. The percentage of cases correctly predicted by the model increased by 12-16 percentage points and the estimated variation explained by the model increased by about 30 percent (as indicated by the pseudo R square). Increased work experience by wives reduced the

Table 5.—Percentage distribution of major occupational groups, by birth cohort, and most frequent detailed occupation of wives

Occupational group	Birth cohort				Most frequent occupation for wives born in the 1950's
	Total	1930's	1940's	1950's	
Total percent	100	100	100	100	Executive:
Executive, administrative, and managerial	7	7	8	7	Managers and administrators, not elsewhere classified; accountants and auditors
Professional	13	12	16	12	Professional:
Technicians and related support	3	2	3	3	Teachers; registered nurses
Sales	11	12	10	12	Sales:
Administrative support, including clerical	28	29	27	29	Cashiers; sales workers for other commodities; supervisors and proprietors—sales
Service	16	17	15	15	Administrative:
Farming, forestry, and fishing	1	1	1	1	Secretaries; bookeepers, accounting and auditing clerks; typists; general office clerks; bank tellers; receptionists; administrative support, not elsewhere classified
Precison production, craft, and repair	2	2	2	2	Service:
Machine operators, assemblers, and inspectors	6	6	6	6	Waitresses; nursing aides, orderlies and attendants; cooks, except short order; hairdressers and cosmetologists; child care workers, except private household
Handlers, helpers, and laborers	6	6	6	6	Machine operators, assemblers, and inspectors:
Unknown	6	6	7	7	Textile sewing machine operators; assemblers

[1]Defined as at least 1 percent of women being in a detailed census occupation.
Source: 1990 SIPP.

likelihood of having low relative earnings. If the trend toward greater work experience among women continues, the proportion of wives with low relative earnings will decrease in future years.

Discussion and Conclusion

An analysis of average covered earnings at specific ages during the early worklives of wives indicates that differences in covered earnings relative to their husbands have decreased. More recent birth cohorts of wives have more years with nonzero covered earnings, both absolutely and relative to their husbands. More recent cohorts have higher proportions of wives with more complete work experience and have higher levels of covered earnings and higher levels relative to their own husbands.

If these earnings patterns continue into later worklife, a substantial proportion of wives in these cohorts will receive some wife benefits at retirement, and most wives who become widowed will receive some widow benefits from Social Security. This pattern is less true among more recent cohorts. The proportion of wives with low earnings relative to their husbands decreased from two-thirds of wives born in 1930-34 to about half of wives born in 1950-54 and two-fifths of wives born in the 1955-59. The percentage earning less than their husbands (that is, the percentage who would receive some widow benefits if widowed) decreased from 90 percent of wives born in 1930-34 to about 80 percent of wives born in 1955-59.

Of the characteristics examined, a wife's years with earnings was the most important factor in the likelihood of her having low average earnings relative to her husband. In all cohorts, wives with more earnings years were much less likely to have low relative earnings. Thus, the increased work attachment by recent cohorts of women may increase gender equity of earnings.

Some relationships were common to all cohorts such as a reduced likelihood of low relative earnings among wives with more years of education. An increased likelihood of low relative earnings occurred among wives whose husbands had higher earnings, with more children ever born, and with more years of marriage.

Other relationships differed somewhat by birth cohort. In the 1940's and 1950's cohorts, black wives were significantly less likely to have low earnings relative to their husbands. Although wives with more education were less likely to have low relative earnings, the statistical significance of coefficients varied across the cohorts. Several variables failed to be significant in different cohorts when a wife's work experience

Table 6.—Logit regression predicting wife's earnings at ages 22–31 less than 30 percent of husband's earnings, by birth cohort

Characteristic	1930-39			1940-49			1950-59		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Wife:									
Black	0.090	0.183	0.501	[1]-0.666	[2]-0.547	-0.376	[3]-0.383	-0.130	0.288
Hispanic	-0.232	0.194	-0.295	0.078	0.186	-0.319	0.097	-0.274	0.060
12 years education	[2]-0.538	[2]-0.595	[2]-0.783	-0.016	-0.229	-0.360	[1]-0.569	[1]-0.782	-0.392
More than 12 years education	[1]-0.947	[1]-1.033	[1]-1.576	[2]-0.501	[1]-0.757	[1]-0.918	[1]-1.207	[1]-1.520	[1]-1.012
1 child born	0.540	[3]0.658	0.344	[3]0.546	[3]0.565	0.458	[2]0.523	[2]0.549	[3]0.547
2 children born	[2]0.835	[1]0.881	-0.151	[1]1.038	[1]0.970	[3]0.538	[1]1.002	[1]0.984	[2]0.547
3 or more children born	[1]1.787	[1]1.853	[3]0.780	[1]1.392	[1]1.404	[1]0.913	[1]1.493	[1]1.532	[1]0.921
Years of marriage	[1]0.216	[1]0.216	[2]0.182	[1]0.123	[1]0.116	[1]0.096	[1]0.127	[1]0.120	[1]0.079
Husband's accumulated earnings:									
Third quartile	...	[2]0.386	[1]0.571	...	[1]0.612	[1]1.036	...	[1]0.672	[1]1.484
Highest quartile	...	[3]0.370	[2]0.649	...	[1]0.922	[1]1.166	...	[1]1.277	[1]2.115
Wife's years of work:									
5–8 years	...	...	[1]-2.680	...	...	[1]-2.411	...	...	[1]-2.150
9–10 years	...	...	[1]-4.645			[1]-4.565			[1]-4.522
-2 log likelihood of:									
intercept	1778.1	1778.1	1778.1	2904.4	2904.4	2904.4	3705.5	3705.5	3705.5
Model	1533.1	1524.5	985.8	2687.6	2617.6	1644.0	3278.0	3127.0	2068.3
Model Chi Square	244.9	253.6	792.2	216.7	286.8	1260.4	427.5	578.5	1637.2
Degrees of freedom	8	10	12	8	10	12	8	10	12
Pseudo R^2	0.13	0.13	0.43	0.07	0.09	0.43	0.11	0.15	0.44
Percent predicted correctly	73	73	85	65	67	83	66	70	84

[1] Significant at the 0.001 level.
[2] Significant at the 0.01 level.
[3] Significant at the 0.05 level.

was added to the models. These variables may affect low relative average earnings by influencing work experience.

This analysis uses an incomplete earnings history to study the earnings patterns of couples and is very similar to an earlier analysis with the 1984 SIPP (Iams 1992). It finds major changes between birth cohorts at the same age. We do not know if earnings patterns observed in the first decade or two of the Social Security benefit computation period will continue. However, the most frequent occupations of wives, such as secretaries, typists, teachers, nurses, and cashiers, typically do not have dramatic earnings increases over a career. In addition, the pattern of earnings for wives relative to that of their husbands was fairly stable across ages within a cohort. The pattern observed at ages 22-31 was similar to that observed at ages 22-41 for all cohorts. It also was similar for earnings at ages 22-51 of the 1930-34 cohort but not the 1935-39 cohort. Stability across ages could be the case if decisions are generally made early in a work career on occupation and level of work commitment, both of which affect lifetime earnings.

Notes

[1] Covered earnings are earnings and self-employment income subject to Social Security taxes up to a maximum taxable amount.

[2] In 1992, the PIA is calculated using 90 percent of the first $387 of the AIME, 32 percent of the next $1,946, and 15 percent of the AIME over $2,333.

[3] For the most part, a wife with lifetime earnings less than about 30 percent of her husband's earnings can expect to receive a wife benefit. The percentage is approximately 30 rather than 50 because the PIA formula weights lower earnings more heavily.

[4] For the most part, analysis indicates that the increase from 1940 to 1970 resulted from older women entering the labor force who usually had limited recent work experience and lower education levels than currently working women (O'Neill 1985; Smith and Ward 1984, 1989; Goldin 1990). The influx of these women depressed relative earnings of women by lowering the average work experience and education levels of currently working women relative to men.

[5] However, data from a point in time indicate that a minority of wives earned as much as their husbands (Bureau of the Census 1989, table 7).

[6] An analysis of earnings covered by Social Security omits noncovered earnings and earnings above the taxable maximum. The taxable maximum varied over time with substantial increases occurring between 1965 and 1979. Changes in Social Security coverage also affected which jobs were included as covered. Noncovered employment results in zero earnings posted to the earnings record. Coverage expanded from 1951 through the 1980's, particularly in the early 1950's and in 1983.

[7] The sum of years with nonzero covered earnings of each wife was divided by that of her husband and expressed as a percentage. The percentage was set to 100 if only the wife had covered earnings. No adjustments were made for variations in hours and weeks worked per year. This information is not used in Social Security benefit calculations and is not available on the SER. Because a higher proportion of men than women work full-time hours over a full year, the earnings of men often exceed those of women.

[8] Covered earnings were wage indexed to 1990 dollars using the average earnings in the national economy as is done in the Social Security benefit computation.

[9] Substantial work attachment was defined as nonzero covered earnings in at least 80 percent of potential years at ages 22-31. Some analysts believe that lack of work commitment at younger ages lowers earning potential in subsequent years. Within birth cohorts, the mean of indexed annual earnings was calculated at each year of age for the wives working at that age.

[10] Table 4 was replicated using average indexed earnings per month entered into the 1992 PIA formula. These estimates suggest the basic benefits that these levels of earnings would generate if these earnings patterns continued into the future. Of course, an estimate based on a partial career may differ from the actual retirement benefit would be based on the 35 years of highest earnings. The proportion of wives with average earnings of 30 percent or less than their husband's earnings almost exactly matched the proportion of wives with estimated PIA's less than half those of their husband's PIA.

[11] The 1990 SIPP identified the occupations of currently employed persons. We selected the occupation with the most hours worked in the reference month of the interview of the second wave of survey interviews. If a person was not employed, the SIPP work history identified the occupation of a job held within the previous 12 years.

[12] The husband's average monthly earnings level was calculated using earnings from the later of age 22 or 1951 through 1990, wage indexing earnings to 1990.

[13] A negative coefficient indicates a lower likelihood and a positive coefficient indicates a higher likelihood than the group not directly measured in the model. The strength of the model is indicated by the percentage of cases correctly predicted by the model and the explained variation of the model (the pseudo R square).

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