

June, 1986

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One of the most significant social changes of this century is the notable influx of women into the paid labor force. Prior to 1940, slightly fewer than one in four women were gainfully employed¹ in the U.S. This participation rate fluctuated little between 1900 and 1940. Blacks, poor whites, and a greater proportion of single women largely accounted for women's presence in the job market during this period (U.S. Bureau of Census, 1961). The outbreak of World War II, however, created a tremendous demand for women workers. This quickly subsided after 1945 with government sponsored publicity campaigns to reduce women's labor force participation to insure full employment for men. Nonetheless, a systematic increase in the proportion of women workers began after World War II. By 1955, one in three women in the U.S. above the age of 15 were wage earners. This proportion continued to gradually rise during the next 15 years until it reached 42.6 percent in 1970. At this juncture, female labor force participation expanded with unprecedented vigor. More than half of the women in the U.S. were wage earners by the end of the 1970s. This dramatic shift can be attributed primarily to the increased participation of married women which rose from 17 percent to 51 percent between 1940 and 1980.

There are numerous reasons for the marked expansion in married women's labor force participation. Economists credit greater job opportunities and rising real wages for women's attraction to the paid labor market (Wales and Woodland, 1977; O'Neil, 1981; Long and Jones, 1980). Sociologists have pointed to rising divorce rates, falling birthrates, the baby boom age group, and changes in gender role attitudes as probable causes (Heckman, 1978; Ferber, 1982). In addition, several other explanations have been proposed; rising education levels (Shapiro and Muth, 1979), shifts in tax rates (Leuthold, 1978), and changes in the industrial structure (King, 1978).

Regardless of the underlying cause behind expanded labor force participation of married women, the outcome has been the same: fundamental changes in the economic and social roles of family members (Barrett, 1976). Until recently, the wife's contribution to family income, specifically in middle income families, had gone largely unnoticed. Today, there is more recognition that working wives make

positive contributions to their family income; without such efforts many families would not be able to maintain their accustomed standard of living (Beneria, 1981).

North Dakota has also experienced an increase in married women's job market participation in recent history. The number of families in the state in which the wife worked for pay more than doubled during the 1970s. Among the husband-wife families in 1970, only one in four wives were wage earners. This proportion rose to more than one in two (54 percent) by 1980. Interestingly, the increased labor force participation of married wives in North Dakota occurred rather uniformly regardless of the presence or absence of children. Wives in families with no children less than 18 years of age were the most likely to become engaged in paid employment, from 17.6 percent in 1970 to 46.0 percent in 1980. Similarly, in 1980 there were more than 2½ times more women wage earners in intact² families with preschoolers than in 1970. As a result, the proportion of husband-wife families in which only the husband participated in the labor force declined to only one in three by 1980.

Although married women have entered the paid labor force in record numbers in North Dakota, little is known about the extent of their contribution to family income. This lack of information impedes efforts to more fully understand the impacts of changes in the economy on family structure.

In this article, we investigate the earned income contribution of North Dakota wives' to their family's total income. We focus on paid labor but recognize that this is only one aspect of wives' economic input which ranges from unpaid housework to child care. Our attention centers on the past decade, a period of many dramatic changes in married women's labor force activity. Thus, we compare wives of intact families for 1970 and 1980. In addition, we analyze the effect of education, occupation, income, and stage in the life cycle on the wives' financial contribution to their family.

Procedure

Data for this study were obtained from the 1970 and 1980 public use sample generated from the Census of Population for North Dakota. One out of five households in the state were surveyed in these probability samples. The data are unaggregated, which allowed for comparison of individual characteristics. Only married women with husbands present in the household were selected for analysis.

²Intact families in this report are defined as those in which both the husband and wife reside, thus excluding separated couples.

¹Gainfully employed workers included those 10 years old and over who reported occupations which received wages or profit without regard to work-seeking status, and, in general, excluded new job seekers without previous experience.

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The analysis was conducted in two parts. First, a comparison of the amount of income women contributed to the family in 1970 and 1980 was calculated. This was accomplished by dividing the total earnings of the wife by her family's total income. Income was defined as earnings from all sources (i.e., investments, social security, business, job-related benefits, welfare benefits, and salaries and wages). Income figures for 1970 were adjusted for inflation³ to allow for comparison.

Income was self-reported in the public use sample and thus is subject to reporting bias. A systematic bias is likely to underreport women's interest and investment income since this is typically reported as earned income by the husband rather than as the shared earnings of both spouses. Nonetheless, we view this measure as an appropriate proxy for describing wives' total paid income contribution to the family. It is not intended to represent an estimate of the wife's total economic contribution to the family, however, since unpaid labor is not studied.

The second part of the analysis investigates the relationship between wives' contribution to the family income and four key demographic variables; education, occupation, income, and stage in the life cycle. Education is reported as the highest grade completed by the wife. It does not encompass training received at trade or technical schools. The occupations of wives were categorized into nine major groupings based on the Department of Labor's occupational codes. Changes in occupational titles which occurred between 1970 and 1980 were adjusted to allow for comparative analysis. Finally, we investigated the shifts in wives' family income contribution during the different life cycle stages. This was accomplished by classifying families into the following categories: a) young couple stage—intact families with no children and the wife was less than 30 years of age; b) beginning family stage—intact families with children aged six years or under; c) family stage—intact families with children between the ages of seven and 18; d) launching families—intact families where all children have left and parents are alone; and e) retirement—families in which the wife is above the age of 64.

Findings

In 1970, more than half (52.5 percent) of all married women in North Dakota did not earn a wage or salary. This proportion declined to 42.9 percent in 1980 (see Table 1). As a result, women's paid labor in 1980 accounted for a larger share of the family's economic well-being than in 1970.

As shown in Table 1, in 1980 a greater number of women contributed income to their family than was the case 10 years earlier. The proportion of wives who contributed earnings to the family, however, is inversely related to the amount they contributed. For example, nearly 35 percent of North Dakota's wives in intact families earned between 1 and 30 percent of their family's total income. Only half that proportion earned between 30 and 50 percent of the family's income. Less than 7 percent of wives earned the majority of the family's income with under 1 percent contribution between 90 and 100 percent. This trend is similar to that at the national level.

Table 1. North Dakota Wives' Contribution to Family Income, 1970 and 1980.

Wives' Contribution as a Percent of Total Family Income	Percent of Wives		Percent Change 1970-1980
	1970	1980	
0%	52.5	42.9	-9.6
1-29%	30.1	34.8	+4.8
30-49%	11.7	15.6	+3.9
50-69%	3.6	5.0	+1.4
70-89%	1.9	1.1	-0.9
90-100%	0.3	0.6	+0.3
N	126,495	196,240	

Family Income Levels

Most women whose families are at either the upper or lower end of the economic spectrum (i.e., poverty or wealth) earn relatively little money compared with their husbands. This finding is evident in North Dakota according to the figures in Table 2. In 1980, more than 70 percent of the wives in families with incomes of less than \$5,000 did not work for pay. This proportion is markedly lower for each incremental increase in family income up to \$30,000, where only 30 percent of the wives did not contribute money income to the family. After this point, the proportion of wives not working for pay rises with each additional increase in family income.

Occupation and lifecycle stage are two important elements which help create this curvilinear trend. First, closer scrutiny reveals that three of four wives in families with incomes under \$5,000 who did not work for pay lived on farms. Since earnings from family farming have typically been reported as the husband's income, regardless of labor input from wives, one should be cautious in interpreting wives' economic contribution to families on farms. The high proportion of nonwage-earning women on marginal farms in Table 2 more likely reflects a definitional inadequacy of farm wage earner than limited income input by women. Second, age of children has a major influence on women's earnings. More than half of the women who were the major income earner in their family were either in the young couple stage or family stage of the lifecycle. Since the burden of child-rearing has typically fallen on the wife, her income earning potential relative to her husband is highest before the children are born or after their preschool years. This is the period in which her marketability (e.g., education, job experience) is closest to her husband's.

Education Levels

The general level of education of North Dakotans rose during the past decade. More than three in four wives in the state had at least completed high school in 1980 compared to 67 percent in 1970, an increase of more than 15 percent. As shown in Table 3, a more dramatic gain was among the college-educated women, who represented only 6.5 percent of the women in North Dakota in 1970. That proportion climbed to 12.7 percent by 1980 or a 95.4 percent increase.

Higher educational levels attained by women in North Dakota have contributed, in part, to their expanded labor

³The income figures for 1970 were adjusted for inflation based on the GNP Implicit Price Deflator (1.939) (U.S. Department of Commerce).

Table 2. Wives' Contribution to Family Income by Family Income, 1970 and 1980.

Total Family Income	Year	N.	Percent of Total Wives	Wives' Contribution as a Percent of Total Family Income				
				0%	1-10%	11-30%	31-50%	51 + %
Less than \$5,000	1970	10,905	8.6	68.8	4.7	13.2	9.1	4.2
	1980	11,400	5.8	70.5	11.6	6.7	2.5	8.8
\$ 5,000-10,000	1970	21,525	17.0	56.0	10.7	12.5	11.9	8.9
	1980	26,740	13.6	63.1	9.7	12.1	7.4	7.7
\$10,001-20,000	1970	52,290	41.3	53.6	12.6	17.8	10.2	5.7
	1980	67,260	34.3	44.9	13.6	19.3	14.6	7.5
\$20,001-30,000	1970	26,535	21.0	41.9	14.0	22.1	16.7	5.2
	1980	53,280	27.3	29.8	12.4	28.7	22.8	6.3
\$30,001-40,000	1970	7,215	5.7	45.7	14.6	22.9	14.8	2.1
	1980	22,560	11.5	30.1	13.9	28.8	22.3	4.9
More than \$40,000	1970	8,025	6.3	54.4	23.7	12.3	4.3	5.2
	1980	15,000	7.6	42.8	18.9	25.7	8.8	3.7
Total	1970	126,495	100.0%					
	1980	196,240	100.0%					

Table 3. Women's Contribution to Family Income by Education, 1970 and 1980.

Educational Level	Year	N.	Percent of Total Wives	Wives' Contribution to Family Income as a Percent of Total Family Income				
				0%	1-10%	11-30%	31-50%	51 + %
Less than 8th Grade	1970	27,330	21.6	59.9	9.6	20.3	7.4	2.8
	1980	26,440	13.5	69.0	8.9	11.1	7.9	3.0
8-11 Grade	1970	14,565	11.5	49.5	19.0	19.7	8.5	3.4
	1980	17,800	9.1	56.0	12.5	19.1	8.0	4.5
High School Graduate	1970	50,085	39.6	54.0	11.9	15.3	11.8	7.0
	1980	73,100	37.3	39.6	14.6	24.7	14.9	6.2
1-3 Years of College	1970	26,340	20.8	48.2	12.6	18.1	15.5	5.5
	1980	53,720	27.4	38.1	13.1	23.3	17.5	8.1
College Graduate	1970	6,675	5.3	38.4	15.7	14.8	16.9	14.2
	1980	17,760	9.1	27.5	13.1	22.0	27.6	9.9
Postgraduate	1970	1,500	1.2	31.0	25.0	0.0	24.0	14.0
	1980	7,420	3.6	23.2	14.3	25.6	24.8	12.3
Total	1970	126,495	100.0%					
	1980	196,240	100.0%					

force participation. Compared with 1970, a greater proportion of women in the state with a high school education entered the labor force in 1980. Nearly 53 percent of these high school graduates were employed in 1980 compared to only 45 percent in 1970. Moreover, there was a sizable increase in the percentage of female high school graduates who contributed up to 50 percent of their family's income (see Table 3).

The pattern of wives' contribution to their family's income was quite similar between 1970 and 1980. In general, as

educational levels rose, the proportion of women who contributed paid income to the family also increased (see Table 3).

For low income families, the wives' contribution is often a critical source of protection from poverty. In North Dakota, the highest levels of poverty are among the least educated. In 1980, more than 21 percent of intact families in the state with parents who had less than a fifth grade education were in poverty; 12 percent of intact families with less than a high school diploma were impoverished. Unfortunately, wives in

these families typically cannot effectively compete in the labor market. Those that can usually are limited to jobs which pay such low wages that their income inadequately compensates then for child care, transportation, and other job related expenses. Thus, in many respects, they are better off not being employed.

Occupation

A wife's occupation influences her paid contribution to family income. Occupation was self-identified in this report and refers to the kind of work the person performed at their most recent job since 1975. Women who classified themselves as farmers tended to have the least amount of paid employment. More than half of North Dakota wives who reported their occupation as farming (52 percent) indicated they did not earn a wage in 1970 (see Table 4). One decade later, however, that proportion fell to slightly more than one in three (37 percent). This dramatic movement of farm women to the paid labor force may reflect the financial crisis that face many farmers today due to a widening gap between production costs and the value of farm products. (Leholm et al., 1985). A marked growth in the proportion of wage earning wives between 1970 and 1980 was found in almost every occupational category.

The largest contribution of earned income by wives was from women employed in executive, managerial, professional, technical and farm occupations. Between 12 and 16 percent of these wives earned more than half of their family's income, both in 1970 and 1980. The two exceptions were women technicians and farmers in 1970. It is noteworthy that these occupations are among the fastest growing categories for women. In fact, the number of women in professional and executive positions increased more than 50 percent during the past decade while the number of female technical workers and farmers more than doubled.

Life Cycle Stage

The income contribution of North Dakota wives to their family's total earnings varied distinctly depending upon their stage in the life cycle. Three major events: a) the beginning of a family (i.e., children); b) the period when children leave the home; and c) retirement mark important shifts in both labor force participation of women in intact families and the amount of earned income they contribute to the family. This is probably due to changing demands for unpaid labor (i.e., homemaking, child care) placed on wives during these stages. During the past decade the contribution levels of

Table 4. Women's Contribution to Family Income by Occupation, 1970 and 1980.

Occupation	Year	N.	Percent of Total Wives	Wives' Contribution to Family Income as a Percent of Total Family Income				
				0%*	1-10%	11-30%	31-50%	51 + %
Executive, Managerial	1970	2,175	2.9	27.6	19.3	24.1	13.8	15.2
	1980	7,180	5.4	11.1	11.7	27.9	34.5	14.8
Professional	1970	11,145	14.9	26.8	15.8	16.0	24.6	16.8
	1980	20,380	15.3	10.9	15.6	28.0	30.7	14.8
Technical	1970	255	0.3	70.6	0.0	29.4	0.0	0.0
	1980	4,180	3.1	14.4	4.8	28.2	37.4	16.3
Sales	1970	8,565	11.4	25.0	29.8	28.0	14.5	2.6
	1980	15,600	11.7	18.6	24.2	32.2	17.6	7.4
Administrative Support	1970	22,005	29.4	33.5	9.7	24.1	22.9	9.8
	1980	35,940	26.9	17.5	14.9	34.1	24.9	8.6
Services	1970	23,670	31.6	36.9	18.6	26.6	12.9	5.0
	1980	34,580	25.9	18.5	25.6	33.8	15.6	6.5
Farm	1970	1,995	2.7	51.9	18.8	16.5	3.0	9.8
	1980	5,960	4.5	37.3	17.5	19.8	12.8	12.7
Precision Production	1970	750	1.0	14.0	0.0	40.0	46.0	0.0
	1980	2,600	1.9	28.4	15.4	31.5	18.5	6.0
Laborer	1970	4,305	5.8	26.5	14.6	35.2	10.7	16.0
	1980	7,020	5.3	17.4	19.4	34.5	21.9	8.8
Total	1970	74,865	100.0%					
	1980	133,440	100.0%					

*For women not earning a wage, the occupation listed is either their current unpaid occupation (e.g., unpaid farm worker) or if not employed, their most recent occupation since 1975.

wives at different life cycle stages shifted markedly (see Table 5).

A larger portion of intact families in 1980 consisted of young couples (i.e., under age 30 and no children) than was the case in 1970. Nearly 9 percent of North Dakota wives were in young couple families in 1980 and only 6.6 percent did not earn a wage. This is a dramatic reduction from the 16.1 percent of wives in young couple families who did not contribute income in 1970. It is interesting to note, however, that the proportion of young couple wives in 1980 who earned the majority of their family's income was only a little more than half that of the 1970 percentage.

A similar trend is found among wives with preschoolers. Fewer than 16 percent of these wives did not provide earned income to the family in 1980 compared to 36 percent in 1970. However, in 1980 nearly twice as many wives with small children in intact families did not contribute income to their family compared to wives in young couple families, 15.6 percent and 8.9 percent, respectively. This proportion more than doubles as the children age into their teens. When the children leave home (i.e., launching family stage) the percentage of wives not earning a wage decreases markedly.

The number of wives above the age of 65 (i.e., retirement stage) not earning an income dramatically increased in 1980 compared with 1970, 83.5 percent and 28.3 percent, respectively. This in part reflects the 23 percent reduction between 1970 and 1980 in the number of women above the age of 65 who participated in the labor force (see Rathge, 1984).

Summary and Conclusions

Women in North Dakota entered the labor force in record numbers during the 1970s. With this increased participation, the financial aid wives provided to their families also rose. Although more than half of the married women in the

state earned a wage in 1980, various factors influenced their contribution level. For example, the overall affluence of the family appeared to be an important indicator of the wife's contribution. Wives in poverty-stricken families or those in wealthy families were paid relatively little money compared to their husbands. Caution must be taken in interpreting this finding, however, since many of the wives in marginal income families were unpaid farm laborers. In contrast, the contribution of wives in moderate income categories tended to be more substantial. Education also seemed to be closely tied to earnings of wives. Statistics reveal that, in general, the higher the wife's educational level, the more she earned relative to her husband. This was also reflected in occupation. Wives in higher status fields (i.e., professional, managerial, technical) contributed a greater portion to their families' income than did women in lower status occupations. Finally, women's stage of family life cycle also influenced their earnings. Wives added a greater portion to their families' income before they had children than during the child-rearing period.

If these findings are to be useful to decision makers and policy brokers then there needs to be a contextual appreciation given women's economic activity. One must recognize, for example, that a substantial income gap exists between men and women. In 1980, the median income of women with earnings employed full-time and year-round was only \$8,656 compared with \$15,263 for men. This equates to an earnings of 57 cents for every dollar earned by a man employed full-time and year-round in the state. In part, this is due to the traditionally female occupations women are channeled into. However, discriminatory wage practices most likely still play a major role in income differentials between men and women. The faster income growth among men than women alludes to such unethical practices.

Also, the overwhelming burden of child care and homemaking falls disproportionately on the wife. As a result, opportunity costs are much higher for wives since they typically interrupt their careers for childbearing and rearing while their husbands do not. This places wives in more disadvantaged positions in the work force relative to their husband due to lost work experience.

Table 5. North Dakota Wives' Contribution to Family Income by Life Cycle Stage, 1970 and 1980.

Life Stage	Year	N.	Percent Of Total Wives	Wives' Contribution as a Percent of Total Family Income				
				0%	1-10%	11-30%	31-50%	51+ %
Young Couple Stage	1970	6,795	5.4	16.1	5.3	14.1	34.0	30.5
	1980	17,480	8.9	6.6	9.0	26.3	40.4	17.6
Beginning Family Stage	1970	45,705	36.1	63.2	12.2	14.7	7.2	2.8
	1980	30,540	15.6	35.0	17.8	22.8	18.2	6.3
Family Stage	1970	39,645	31.3	54.3	14.4	16.3	10.6	4.4
	1980	75,640	38.5	38.1	15.2	27.4	14.2	5.1
Launching Family Stage	1970	24,330	19.3	49.5	13.3	18.2	13.9	5.1
	1980	48,520	24.7	48.4	11.1	18.4	13.5	8.5
Retirement Stage	1970	10,020	7.9	28.3	12.1	33.7	15.9	10.4
	1980	24,060	12.3	83.5	7.3	5.9	2.8	0.41
Total	1970	126,495	100.0%					
	1980	196,240	100.0%					

In sum, an analysis of the income contribution of wives to their family is an incomplete picture of wives' economic activity. Also, it is an artificially deflated estimate of wives' economic contribution to their family relative to their husband. Nonetheless, it is a useful indicator in assessing shifts in wives' income earning activities and the impact it has on family economics. If the trend towards working wives continues, as indicated in this report, and especially if women are able to break into the male-dominated fields, wives may be perceived no longer as the secondary earner but, rather, as an essential economic provider for the family.

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