

DOCUMENT RESUME

ED 105 320

CG 009 690

AUTHOR Jusenius, Carol L.; Sandell, Steven H.
TITLE Barriers to Entry and Re-Entry into the Labor Force.
PUB DATE 7 Jun 74
NOTE 55p.; Paper presented at the Workshop on Research Needed to Improve the Employment and Employability of Women (Washington, D.C., June 7, 1974); For related documents, see CG 009 691 and 692
EDRS PRICE MF-\$0.76 HC-\$3.32 PLUS POSTAGE
DESCRIPTORS Attitudes; Behavior Patterns; *Bias; *Females; *Labor Market; *Literature Reviews; *Role Perception; Speeches

ABSTRACT

A review of the literature indicates that on the topic of women's participation in the labor force, the attention of the economics profession has been directed more heavily toward analyses of the supply rather than analyses of either the demand or the interaction between the two. Detailed information on wages, employment and attitudes would greatly contribute to an understanding of the demand-related barriers to entry or re-entry faced by women. Concerning the supply, such variables as low wages, the presence of children and unfavorable attitudes toward women working outside the home can all be considered barriers to the labor force participation of women. However, empirical findings are frequently ambiguous in the absence of reasonably complete models of women's behavior. The need for more complete modeling of the activities of women over their life cycle, of which labor market participation is only a part, seems apparent. (Author/PC)

SCOPE OF INTEREST NOTICE

The ERIC Facility has assigned this document for processing to

CG CE

In our judgement, this document is also of interest to the clearinghouses noted to the right. Indexing should reflect their special points of view.

ED105320

BARRIERS TO ENTRY AND RE-ENTRY INTO THE LABOR FORCE

by

Carol L. Jusenius
Research Associate
Center for Human Resource Research
The Ohio State University

and

Steven H. Sandell
Assistant Professor of Economics
and Research Associate
Center for Human Resource Research
The Ohio State University

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

CG 009 690

Presented at the Workshop on Research Needed to Improve the Employment and Employability of Women

Sponsored by the Women's Bureau, U.S. Department of Labor

June 7, 1974

BARRIERS TO ENTRY AND RE-ENTRY INTO
THE LABOR FORCE*

According to the 1974 Manpower Report of the President, the 1973 unemployment rate for all women was 6.0 percent, while for all men it was 4.1 percent.¹ The participation rate for March of that year was 44.7 percent for women and for men, 79.5 percent.² These aggregate figures are dramatic testimony to the substantial differences that exist in the labor market experiences of men and women in the United States. An understanding of the causes and consequences of these differences has become an area of great public concern.

This paper addresses some of the issues and problems implicit in these labor market statistics. Specifically, it focuses on barriers that women face when they consider entrance or re-entrance into the labor force. Part I, which discusses the problem and the existing literature on the subject in general terms, points out those topics which require additional research. Part II focuses on some of the

*The authors wish to thank Arvil V. Adams, Andrew J. Kohen, Gilbert Nestel, Herbert S. Parnes, Richard L. Shortlidge, Patricia Brito and Scott Sutton for their valuable comments and assistance on earlier drafts. The paper represents the views of the authors. It is not an official publication of the Center for Human Resource Research since it has not been officially reviewed. Carol Jusenius is responsible for Part I and Steve Sandell for Part II.

¹Manpower Report of the President, p. 277, Table A-19.

²Manpower Report of the President, pp. 254-255, Table A-2.

methodological and empirical problems inherent in such analysis as they bear on future research needs. Concluding remarks are provided in Part III.

I A SURVEY OF THE PROBLEM

The definition of a barrier is "anything that restrains or obstructs progress, access."³ When the term is used in conjunction with women's labor force activities, it connotes differential treatment of women and men. The extent to which such differentiation is reasonable, legitimate or discriminatory depends upon one's beliefs. What to one person is an unjustifiable barrier, may be a legitimate one to another. Thus, barriers to the employment of women are problems only if one believes that differential treatment accorded to men and women is a form of unjustifiable discrimination on the part of society or institutions within it. Programs aimed at the reduction of barriers assume precisely this and are directed toward achieving both equality of opportunity (and access) and maximization of true freedom of choice for present and future generations.

Realization of these objectives necessitates action on a broad front, for barriers exist at several levels, originate from a variety of sources and have varying effects upon women with different characteristics.

³Random House Dictionary of the English Language, p. 122.

While it is true that one set of barriers is common to all women (viz., societal attitudes toward their proper role), it is important to recognize that there is also considerable variation in the precise nature of the problem.

For women wishing to enter or re-enter the labor force, barriers exist on two levels. One relates simply to entrance into the labor force, while another concerns entry into specific occupations. That is, fewer entry barriers may exist for stereotypically female than stereotypically male occupations.⁴ In the case of re-entry, barriers are imposed not only by the sex-typing of occupations, but also by their educational or training requirements. For example, both secretarial work and nursing have few entry barriers, but the problems associated with re-entry may be much greater for nursing than for secretaries.

On each level, general labor force entry and occupation-specific entry, barriers may originate on the supply side, i.e., from some characteristic or set of characteristics of the woman, or on the demand side, i.e., from the potential employer. For entry into the labor force, demand-side barriers --for women and men alike-- are imposed by the level of demand for labor. On this level the problems unique to women are those on the supply side, e.g., the constraining effect of children on labor force participation. When the question is entry into a specific

⁴A list of stereotypically female occupations is presented in Oppenheimer (1968), p. 220.

occupation, again supply-side barriers exist which are unique to women; demand-side factors differ by occupation. That is, for some occupations, not only is aggregate demand a potential barrier, but also important is the unwillingness of employers to hire women.

The degree to which any one woman is affected by either or both of these types of barriers is a function not only of her occupational choice but also of her age and of the point in her life cycle at which she decides to enter or re-enter the labor force. For any given occupation, young women entering the work force for the first time face barriers which differ from those experienced by older women re-entering the labor force. For example, actual (or perceived) skill obsolescence is not a problem to the young woman joining the labor force upon completion of her education, but it can be a serious handicap for an older woman who has been out of the labor force for a period of time. The greatest barriers to entry may be experienced by older women who have never worked, since they suffer from lack of experience, inadequate training, and potential age discrimination.

Furthermore, for any given occupation and age, women raising young children face more severe barriers on both the supply and the demand side than women with older children. Not only may the former group experience problems due to lack of child care facilities, but employers may also be reluctant to hire them. That is, employers may fear a high absentee rate (due to child care responsibilities) or believe that the woman should be in the home with the children.

Thus both the barriers themselves and the groups of women likely to experience them are numerous. The complexity and the variety of the problems involved are reflected by the broad range of literature on the topic in economics, sociology, and psychology. In the following pages we focus primarily on the economic barriers to entry, although there are occasional references to work in other disciplines.

The discussion in this part of the paper is divided into two sections: section A examines the barriers to entry or re-entry which originate on the supply side; section B analyzes the demand-related barriers. We make no pretense at an exhaustive survey of the literature; rather we attempt to focus on major current issues, particularly those which we believe deserve the attention of researchers.

A. Supply-Side Barriers⁵

Perhaps because of the relative availability of data, our knowledge of supply-side barriers limiting women's employment options is much greater than our knowledge of specific demand-side constraints. Numerous studies exist on the relationship between women's labor force participation and such key supply-side factors as the presence of children, level of education, and attitude toward women's roles. Not surprisingly, it has been found that the presence of young children, the number of children in the family, low levels of education, husband's unfavorable attitude, and a belief on the part of women that "a woman's place is in the home"

⁵In the footnotes page numbers are included only when necessary for clarity or ease of reference.

are all related to low participation rates,⁶ and thus may be construed as barriers to entry and re-entry.⁷

Less satisfactory evidence exists on other important topics. Among these are (1) the need for child care facilities; (2) the benefits and costs of adult education and (re) training programs; (3) the relationship between a woman's role in the family and her labor market involvement; and (4) the implications of work expectations for educational aspirations among young women. Each of these topics, discussed in the following pages, merit additional study.⁸

Problems of child care facilities One of the more interesting areas of research on this topic relates to the circumstances under which changes in child-responsibilities lead to changes in labor force participation. Aggregate data demonstrates that women tend to leave the labor

⁶ For example, see Bowen and Finegan; Sweet; Mahoney; Spencer; Cohen; Kreps; Gronau; Parnes, Shea, Spitz, and Zeller; Kim, Roderick, and Shea; O'Boyle, Jusenius, and Shortlidge.

⁷ It has also been found that a high income of husband is associated with low participation rates. (For example, see Mincer). However, for obvious reasons this factor cannot be considered a barrier. Strictly speaking, the presence of children cannot be considered a barrier. It is rather the lack of child care facilities that presents a problem.

⁸ The problem associated with child care provisions might logically be included along with the discussion of women's role in the family. However, the importance of the topic seems to mandate its inclusion as a separate section.

force as child responsibilities increase.⁹ However, recent evidence suggests that women in different socioeconomic strata respond differently to increases in child responsibilities. Those of the lowest socioeconomic group appear to react to an increased child-care burden by entering the labor force and to a decreased burden by leaving.¹⁰ Thus the phenomenon commonly believed to be valid for all women (that they tend to leave the labor force to raise children) appears to be true only for families in the middle-and upper-income categories. While these findings are preliminary and need further investigation, they are suggestive of an area of research critical to the formulation of sound public policy on the need for child care facilities.¹¹

This same study also points out that meeting child care needs by free, organized, centers would not necessarily end the constraining effect of children on women's labor force participation. It is not clear that mothers who would wish to work if "ideal" child care arrangements existed would be satisfied with this method.¹²

⁹See Section II of this paper for an analysis of the econometric problems surrounding inclusion of a variable representing the presence of children in a family.

¹⁰See O'Boyle, Jusenius, and Shortlidge, Chapter 3.

¹¹These preliminary results are presently under more intensive investigation by Richard Shortlidge at the Center for Human Resource Research, the Ohio State University.

¹²In 1968 it was found that only 2 percent of all children of working mothers were cared for in group day care facilities; the majority were cared for in the home. (Low and Spindler, pp. 15-16). Evidence suggests that this distribution reflects mothers' preferences. See Low and Spindler, p. 25; The Day Care Council of New York, p. 21

Indeed if a national program is to be successful, research on the demand for different types of child care arrangements is essential.¹³ In this context, energies ought to be directed toward developing and assessing novel approaches to child care. One possibility would be facilities which combined the economies of day care centers with the atmosphere of a home (along the Danish model). They could be located within neighborhoods, controlled and staffed by professionals, and mothers and fathers from that area. Such arrangements, if they were economically feasible, might satisfy mothers' preferences for in-home child care.

Although the question of child care facilities is usually considered in the context of women with very young children, it may be equally relevant for women with school-age children, since the presence of young, school-age children can also be a barrier to labor force participation. The lack of school lunch programs and of holiday and after-school adult-supervised activities can act as a constraint in much the same manner as lack of child care facilities for preschool-age children.¹⁴

Research on the general topic of child care needs will have to include both the short-run and the long-run impact on labor force participation of the establishment of child care facilities. It is not sufficient to estimate the number of women who would immediately enter

¹³Because of the lengthy set of questions on child care included in the surveys, data from the National Longitudinal Surveys seems admirably suited for this purpose.

¹⁴A brief discussion of this problem is found in Seear, pp. 30-31.

the labor force with the introduction of adequately staffed child care centers; a successful program might alter women's preferences for market work and thus in the long run continuously shift outward the supply curve of female labor. Such research on the effects of the widespread development of child care facilities should include analysis of the effects on the demand for --as well as the supply of-- female labor. For instance, because the provision of quality child-care services requires skilled personnel, estimates of the change in demand for this type of labor are of prime importance.

Skill obsolescence It has frequently been assumed that women out of the labor force for an extended period of time suffer skill obsolescence¹⁵ either as a result of technological changes which make their previous education "out of date," or as a result of deterioration of skills due to non-use, or both.¹⁶ It is claimed that such obsolescence frequently leads to lower pay than for women who have had continuous employment,¹⁷ to difficulties in locating employment, and to internalized beliefs regarding one's inability to succeed in the marketplace.

¹⁵Mincer and Polachek, p. 80; Suter.

¹⁶It should be noted that unless opportunities exist for retraining and "up-dating" one's education, skill obsolescence due to technological change may also affect individuals who have had continuous labor force experience.

¹⁷Mincer and Polachek; Suter. Questions regarding the effect of low wages are considered in the section on demand-side barriers. An analysis of the econometric problems involved is provided in Section II of this paper.

While there is doubtless some validity to these points, they must be qualified in three respects. First, the extent or the importance of skill depreciation is not necessarily uniform across occupations or among women. Second, there are skills acquired in nonmarket work which are potentially transferable to market work. Finally, educational and training programs might well compensate for whatever degree of skill depreciation actually occurs. While these points all refer to a critical barrier faced by women re-entering the labor force, little research has been conducted on them. The remainder of this section will be devoted to an elaboration of these three points.

It is not obvious that skill depreciation is equally important for all occupations. Those which require relatively large amounts of initial training or education and are subject to rapid change due to advances in either technology or knowledge pose greater actual barriers to re-entry than occupations requiring less initial investment in human capital. For example, re-entry in the field of medicine, law or another profession is more difficult than re-entry into a clerical position. Studies are needed on the extent and importance of skill depreciation among women re-entering the different occupations.

Information is also needed on the barriers women within a given occupation face according to the length of time they have been out of the labor force. It would seem reasonable to hypothesize that a woman out of the labor force for one or two years would experience fewer re-entry problems due to skill depreciation than a woman re-entering after fifteen to twenty years.¹⁸ Testing this hypothesis as well as answering the

¹⁸Suter's paper provides some evidence relevant to this issue.

previous questions raised would provide information relevant to the structuring of retraining programs, a possible solution to the problem.

One public policy to facilitate the re-entry of women would be the establishment of programs geared to their labor market needs.¹⁹ The nature of such programs would depend upon both the economy's demand for different types of labor and the occupational desires and backgrounds of women. The costs, benefits, and rates of return of this type of program have yet to be fully analyzed.²⁰ For example, do women who presently receive (re)training find re-entry easier than those without (re)training? Do the benefits of (re)training vary by occupation?

Finally, the contribution of nonmarket activities to the maintenance and/or development of work-skills requires considerably more attention. For instance, women engaged in volunteer activities (for political or religious organizations, hospitals, etc.) may acquire skills useful for market employment. Managing, organizing and fund-raising (either through door to door campaigns or major social events) in volunteer organizations require skills which have their analogue in the marketplace. It is reasonable to ask if the woman successful at door to door collections for muscular dystrophy might not also be a successful salesperson.

¹⁹See Seear, pp. 20-24.

²⁰One proposal for such a program is found in Kruger and Smyth. A theoretical analysis of the problems of skill obsolescence and of programs for retraining is presented in Stoikov.

While membership in various volunteer organizations constitutes a major form of activity among women and while the value of the contributions to output made by volunteer organizations has been estimated to be billions of dollars per annum, there have been few studies of the subject.²¹ Research on the skills involved in such activities that are transferable to market work would yield information of value to women and employers alike. Barriers to re-entry, resulting from a lack of self-confidence and an assumed lack of experience, might be overcome by the recognition of the contribution that nonmarket activities may make to employment opportunities.

Effect of marriage on career development Research questions concerning women's roles within the family have few immediate policy implications. Nevertheless, an understanding of the family aspects of a woman's life will lead to a better general understanding of the problems married women encounter when they make the transition to market work.

Several specific empirical questions are important in this context. What are the effects of family migration on wife's employment opportunities? To what extent are household duties shared by family members when the wife/mother is working? Do changes occur in the allocation of household duties among family members when the wife/mother re-enters the labor force?

²¹ See Gold for one discussion.

The literature on these topics is confined largely to statements of the problem.²² One cannot minimize the contributions these works have made, for they do suggest useful directions for more systematic empirical research. Nevertheless, it would seem that high priority ought to be given to data collection and analysis rather than to additional essays on the role of women in the family.²³

In a sense, following Mincer, we are suggesting that the focal point of many economic analyses be shifted away from the individual and toward an explicit recognition of the family as the decision-making unit. For example, migration studies have for the most part limited themselves to a discussion of the motives of and the returns to the head of household and not the family unit;²⁴ yet, geographic moves for purposes of furthering

²²Examples of statements regarding the role of women in the family structure and the division of household tasks vary widely. While some focus on the problems of women in nuclear family arrangements, others imply that a woman's primary responsibility is to the family, or that extant divisions of labor reflect the comparative advantage of individual household members. In spite of the variations, all are concerned with the relationship between household and market work. For example see Kreps (1971), p. 43; Kreps (1973), p. 93; Oppenheimer (1970), pp. 29-35; Epstein, pp. 101-108; Hedges and Barnett; Komarovskiy (1967), pp. 50-56; Mincer, pp. 63-68; Becker (1973), pp. 815-822; Paloma; Paloma and Garland; Dahlstrom and Liljestrom.

²³Examples of the type of data collection possible and desirable are found in Hedges and Barnett, p. 10; and Myrdal and Klein, p. 35; Leibowitz.

²⁴One exception is Long's article.

a husband's career may have a negative effect on the wife.²⁵ It is not sufficient to speak of increases in family welfare/income as a result of a geographic relocation without considering the welfare implications of that move for the wife.²⁶

Research on the sharing of household tasks should attempt to ascertain the extent to which working women hold two jobs, i.e., in the home and in the market, or are hindered from accepting employment or furthering their career by actual (or feared) exhaustion and lack of time.²⁷ For example, do women desist from seeking employment because of the unwillingness of other family members to share household duties?²⁸ Answers to such questions might be approached through a comparison of husband-wife responses²⁹ and would permit empirical testing of many statements made in the women's movement literature.

²⁵ See Weissman and Paykel.

²⁶ Steve Sandell of the Center for Human Resource Research is currently undertaking such a study.

Perhaps the most severe problems arise when both the husband and the wife are professionals with limited employment opportunities in any particular region. Given the recent, widespread publication by the media of the problems encountered by such couples (especially when both are academicians) and given that academics write the articles, it would not be surprising if among the first of the papers on this topic were not one on this specific subgroup of the population.

²⁷ The employer's perspective on this issue is considered in the section on demand-side barriers.

²⁸ See Komarovskiy (1967), p. 61, for the quotation which inspired this question.

²⁹ The National Longitudinal Survey data currently includes approximately 500 men and women who are interviewed separately, but belong to the same household (in most cases as husband and wife). This seems to be potentially an excellent instrument for answering some of these questions.

Work expectations This final section on supply-side barriers has policy implications for young women, but the precise nature of the recommendations depends largely upon the current labor force experiences of older women. That is, given past growth in and present levels of labor force participation of older women, it appears that younger women are underestimating their likelihood of working.³⁰ Further research is needed to substantiate this finding, but our present information on the sex-role biases of the educational system and of society at large lead one to expect that additional data will confirm it.³¹ Of course, it is possible that high school and college age women in 1974 are better informed about the life-cycle work patterns of women than their counterparts seven or eight years ago. In any case, data on work expectations are necessary, for work expectations have implications for the length and type of education a young woman desires. These in turn affect the probabilities of experiencing barriers not only to entry but, equally as important, to re-entry into the labor force.

As noted in the introduction to this section on supply barriers, the lower the level of education, the less likely the woman is to enter or to re-enter the labor force. Barriers for women with little education consist of limited choice among occupations and a high probability of low wages. Home work may be an attractive alternative.

³⁰See tables and discussion in the Appendix of this paper. Additional information on work expectations is found in Rand and Miller; Hartley; Roderick and Kohen, pp. 15-21.

³¹Excellent discussions of role differentiation by sex and its impact on young women are found in Freeman; Horner; Howe; and Komarovskiy (1950). Articles on sex-role stereotyping in schools include Saario, Jacklin and Title; Weitzman, Eifler, Hokada, and Ross. The importance of a mother's work experience on her daughter's career plans is discussed in Veres.

The type of training a woman receives may also produce barriers to entry and in later years to re-entry. At present, the market and the society are "sending signals" to women; role models exist for the stereotypically female occupations and a desire to train for employment in these fields is natural and unquestioned.³² Indeed, if a woman desires an occupation in which a lack of continuous employment is unlikely to constitute a major barrier to re-entry in later years, the decision to train for a "female" occupation which does not experience rapid advances in technology may be a rational one and the "signals" may be correct. Alternatively, a woman may be basing her educational plans on the probabilities of marriage, children, and labor force withdrawal with little awareness of the degree to which labor force activities will be important over her life-span. In this case she would be making decisions, with long-run implications, on the basis of information obtained from short-run experiences.

To the extent that the education (both level and type) one receives is a matter of free choice, the supply-side barriers relating to it are self-imposed. However, to the extent that educational decisions are based on either little, erroneous, or biased information, they cannot realistically be said to be produced by free choice.

The point is that research is needed on the extent to which a girl's projected plans differ from today's and tomorrow's reality. These studies

³²For a case in which signals from the market differ from those of society, see the section on demand-side barriers to female occupations.

might be directed toward providing better information to young women (through high school counselors, for example). At the very least, young women ought to have full recognition of the future labor force problems associated with the type and level of education that they receive.

B. Demand-Side Barriers

As noted at the outset of this paper, supply-side barriers are only half of the problem. A woman can be single, have no children, be well educated and remain in the labor force continuously--i.e., have no supply-side constraints--and still be limited in her employment possibilities. The reasons for these limitations lie on the demand side of the labor market.

Demand-side problems for women cannot, we believe, be disassociated from the existence of labor market segregation. While the reason for sex-labelling of occupations is undoubtedly a function of both supply and demand factors, the consequences for women are demand-related.

Researchers have not agreed on the reasons for extant sex-labelling of occupations although several explanations have been offered, e.g., female occupations are people-oriented; they are market equivalents of women's work in the home and of their role in society.³³ While these hypotheses have merit, they do not seem to be able to explain fully the circumstances which lead to differences in sex-stereotyping across regions, over time, among firms, and across national boundaries.³⁴

³³Rossi, p. 150; Bernard, Chapters 4 and 5; Oppenheimer (1970), pp. 120-107.

³⁴Blau; Bernard, Chapter 7; Oppenheimer (1970), p. 66.

It may perhaps be argued that market segregation, like the traditional division of labor between husband and wife, is merely a case of "separate but equal" employment opportunities. Such a view, however, ignores both the economic ramifications of choosing to enter a stereotypically female--rather than a stereotypically male--occupation and the political ramifications of limiting freedom of choice.

Without occupational partitioning by sex, both men and women would experience the same barrier to entry, i.e., the level and structure of aggregate demand for labor. With it, women face unique demand-side problems: one set associated with female occupations and another, with male occupations.

Female occupations As economic growth has occurred over the past several decades, increasing numbers of women have entered the labor force. Yet this rise in the participation rate has not been accompanied by a concomitant expansion in the variety of job opportunities available. Indeed, it has largely been attributable to the rapid growth in demand for labor in those specific occupations which are stereotypically female and it is not clear that this increase in demand will continue. Thus the woman who is presently contemplating entrance into (or who has previously been educated for) a female occupation may well face the problem of insufficient labor market demand for her skills.

This problem is best illustrated by reference to the recent Carnegie Commission report,³⁵ which points out that the supply of individuals (primarily women) qualified to be either elementary school or high school

³⁵Carnegie Commission on Higher Education, Chapter 5.

teachers far exceeds both existing and projected demands. This oversupply, in large measure a result of the lower birth rate in the United States during the sixties, affects women currently in college as well as women previously educated for these positions who are now interested in re-entering the labor force. It demonstrates dramatically the need for proper vocational guidance for women presently attending school and also illustrates the importance of re-training programs for older women.

Because of the Carnegie Commission's Report, we are aware of the oversupply of teachers (or on a more positive note, the great demand for nurses). The question is--what are the comparable projections for other stereotypically female occupations? Are large numbers of women currently being educated for positions which, as with the teaching profession, are likely to experience a decline in the level (or in the rate of growth in) demand?

Insufficient demand is not the only barrier to entry into stereotypically female occupations. The relatively low wages paid for virtually all (the most notable exception being teaching) constitute a second and related barrier. In recent years a great interest has arisen within the economics profession on this topic of women's wages. Although the hypothesis that low wages constitute a barrier to entry has not been fully tested, little controversy surrounds it.³⁶

³⁶ Among the studies of the effect of wages on participation are those by Mincer; Cain; Bowen and Finnegan.

On the other hand, there are legitimate differences of opinion regarding the factors related to women's relatively low pay. One school of thought suggests that the wage differentials between men and women are largely attributable to women's lack of continuous work experience.³⁷ Another school of thought believes that the low wages of women are a function of sex segregation in the marketplace. Women are concentrated in a few relatively low-wage occupations, and even within each occupational category, equally qualified men and women are assigned to different job levels. It is for both reasons that women receive lower pay than men.³⁸

The fundamental question raised by this debate is the extent to which work experience is a critical determinant of wages in stereotypically female occupations. It is quite possible that the importance of work experience differs by occupation (see the section on skill obsolescence). It may be critical for occupations which require large amounts of initial investment in human capital, e.g., nursing, but it may be negligible for others, e.g., secretarial work. Thus further research on the question

³⁷ For example, see Mincer and Polachek, p. 103; Suter. It should be noted that neither of these studies has controlled for occupational classification.

³⁸ See, for example, Bergman; Malkiel and Malkiel; Kreps (1971), p. 40; Fuchs; Oppenheimer (1970), p. 99. Most economists are persuaded that the major source of wage discrimination lies in the barriers-to-entry and that the problem of "unequal pay for equal work," while obviously important when it occurs, is generally less pervasive a problem.

needs to disaggregate data by occupation and by the degree to which skill obsolescence is likely to occur in each.³⁹

Male occupations Discussions of the difficulties women experience in predominantly male occupations are found in most sociological studies of labor market segregation. It has been pointed out that problems of male-bonding (the "in" group problem), of male-oriented protege systems, of "old-boy" networks, and of society's stereotypes of women, exist in both the educational system and the marketplace.⁴⁰ Those difficulties which arise during the schooling process serve to limit the number of women interested in and able to obtain training in nontraditional fields⁴¹ and are, at least in part, an indirect effect of the attitudes toward women's roles found in the marketplace. The direct consequence of employers' and co-workers' attitudes, tastes and preferences, is experienced by that group of women who have overcome the obstacles within the educational system and are presently in the hiring queue for male jobs.

These problems deserve serious investigation. Perhaps more than any other set of barriers, the extent to which these are believed to be justifiable depends upon one's values and one's perception of their raison d'etre. One group may believe that valid reasons exist for

³⁹Oaxaca's article is an excellent example of the type of research being suggested.

⁴⁰For example, see Epstein; White; Hacker; Broverman, Broverman, Clarkson, Rosenkrantz and Vogel.

⁴¹For example, see Roby; Holmstrom and Holmstrom; Harris; and Moore.

excluding women from men's occupations. Requirements of physical strength or stamina and fear of high labor costs are often cited here. Another group may believe that the requirements of physical strength and stamina (for example) are frequently a function of historical circumstances and no longer relevant.

The basic conflict arises because decisions affecting either individual women or sub-groups of women are frequently made on the basis of group-derived probabilities. The decision of a department chairman in the university system to admit women to graduate school may depend upon his experience with (and beliefs about) all women rather than his experience with highly educated women. In view of the scarcity of resources, educational administrators may be rightfully concerned about granting admission to female candidates if the women do not utilize their training by actively participating in their chosen profession throughout their lives. Employers too may be legitimately concerned about hiring and training women for decision-making roles in the firm if they leave their position after a short period of time (or if they are frequently absent due to family responsibilities) and thereby do not fulfill their implied obligations to the firm.

On the other hand, there is the equally valid argument that not training women for (or offering them) responsible positions ensures that they will leave their place of employment and move into the home since their opportunity cost of doing so (wages foregone) is low. Furthermore neither the scarcity-of-resources argument nor the on-the-job-training argument seems to provide sufficient grounds for exclusion of virtually an entire sex.

Resolution of this issue necessitates an examination, by occupation, of comparative rates of turnover and of absenteeism for men and women.⁴²

In any case, suggestions that women guarantee to an employer a length of service comparable to equally productive men are nonsensical.⁴³

It is the (male) employer's perception of women's behavior in the labor market and his attitude toward the proper role of women in society that constitute the greatest demand-side barriers to women in nontraditional fields. Yet little information exists on this topic. Research needs in this area include data on employers' attitudes and perceptions and the degree to which the latter accurately reflect reality. That data which does exist at present is suggestive of both the attitudinal problems women currently face and the variety of questions which must be answered.⁴⁴

⁴²A recent study of existing evidence on absenteeism and turnover suggests that the average differences between men and women may not be statistically significant. The report also recommends that future studies analyze these data for comparable groups of men and women. Women's Bureau.

⁴³Mancke. Two additional points are relevant here. First, employers probably tend to recall that one woman left her position to have a child, but not that numbers of men left that position to accept another. Second, the reason a man or a woman resigns from a position is (or should be) a matter of indifference to the employer; the consequence to the firm is the same.

⁴⁴See Goode; Bass, Krusell, and Alexander; Killian. Killian's book, The Working Woman, is interesting primarily because of the approach which he (a business manager) takes rather than because of any information which he imparts. However, one table "Effect of Assumptions about Women in Business" (p. 49) is intriguing.

While it is recognized that existing legislation (i.e., Title VII of the 1964 Civil Rights Act) makes discrimination against women in hiring illegal, nevertheless if women are to move toward true equality of access to male jobs then we must understand why women are presently being limited in their choice of occupations. Do men currently benefit from the sex segregation which exists? If they do (in the form of higher wages, for example), then women can expect increased resistance to change. On the other hand, if it is solely a matter of the socialization process and of misinformation, then resistance is likely to diminish in the long run if changes occur in the education of children.

At this point researchers do not even agree on the extent to which the occupational distribution of women has changed over the last decade. While some articles imply that great gains have been made,⁴⁵ others suggest that little has altered.⁴⁶ Case studies (perhaps of longitudinal nature) are needed on the changes in personnel policies that occur as a result of the successful prosecution of discrimination suits (AT&T, for example). For instance, how rapidly are women being integrated into hitherto "male" jobs? What problems are they experiencing? What attitudinal changes occur among male workers as a result of such integration? Is there a "trickle down" effect of one suit on other corporations and institutions? How long a period of time does it take? The need for data and research on changes in the level and structure of demand for women workers cannot be underestimated.

⁴⁵Hedges and Bemis; Robie.

⁴⁶Waldman and McEaddy; Oppenheimer (1973).

II EMPIRICAL RESEARCH: EVIDENCE, PROBLEMS AND PROSPECTS^{**}

A. Introduction

Part II focuses on some of the major theoretical and empirical problems inherent in research concerned with the employment and labor force participation of women. Two specific concerns become evident: (1) the importance of specifying a more complete theoretical model of women's labor force related behavior and (2) the problem of representing theoretical concepts with survey responses.

This part of the paper is organized as follows: section B presents a brief description of conventional economic theory as it relates to the labor force participation of women. This framework is used in both the subsequent section (C) where the labor force status of women at a point in time is examined and later in section E where lifetime participation is studied. In section C the use of cross section regression analysis is examined to illustrate a way in which the effect of barriers to the employment of women can be measured. Methodological and empirical problems related to cross section studies are discussed. The value of longitudinal data for future research is discussed in section D with a particular emphasis on its usefulness for both answering current research questions and posing new ones. In section E the study of the lifetime employment pattern of women is discussed. Here a preliminary model is used as a vehicle to emphasize the methodological and empirical problems involved in this kind of study.

^{**}This section was written by Steven H. Sandell.

B. Labor Supply of Married Women: The Conceptual Framework

The decision for a married woman to supply labor to the market is viewed in a family context.⁴⁷ Three alternative uses are available for the wife's time: work in the home (e.g., cooking, child care, etc.), market work, and leisure. The allocation of the wife's time among these activities depends on: the net market wage of the wife, family income, the (implicit) home wage of the wife, and the family's attitude toward the wife's working. The expected effects of these groups of factors are discussed below.

The net market wage of the wife and other factors that are related to the return to market work are expected to affect labor force participation. The higher the available market wage, ceteris paribus, the more likely a woman will be seeking market work. Variables that reflect the ease or difficulty of obtaining a job (such as an index of demand for female labor or the area unemployment rate) change the net return to labor force participation by affecting the cost of job search and can thus be considered as analogous to the money wage rate in their effect. Likewise, nonpecuniary returns to employment are similar to wages in their effect on the participation of women.

The higher the family income (excluding the wife's earnings), ceteris paribus, the less likely will the wife be seeking employment. In effect, some of the family income is used to "purchase" leisure for the wife.

⁴⁷ See, for example, Cain; and Mincer.

If the family income drops unexpectedly during one year (perhaps due to the unemployment of the husband), the wife is more likely to be entering the labor force during that year to recover some of the lost income in order for the family to maintain its accustomed standard of living.

The home wage of the wife is determined by her home productivity and the family demand for home goods. The latter depends on income and taste. Although the home wage is not directly observable, it is reasonable to believe that it would be positively associated with the number of children in the household and inversely associated with the ages of the children. The higher the home wage, ceteris paribus, the lower the likelihood that the woman is in the labor force.

Some taste and attitude variables are not reflected in the home wage and should be considered separately as determinants of labor force participation. These include attitudes prevalent in society, attitudes of the husband and wife, and attitudes of the wife's parents. The more favorable the attitude toward women working, the more likely will the wife be in the labor force.

C. Labor Force Participation at a Point in Time: Cross Section Analysis

In this section we present a cross section regression equation from a study of the determinants of the labor force participation of married women to consider methodological and empirical problems in research related to the employment of women. The particular equation was estimated by Sookon Kim for white married women using data from the 1967 National Longitudinal Survey of Women 30 to 44 years of age.⁴⁸

⁴⁸See Kim, p. 60.

The dependent variable (MWLFP) had the value "1" when the respondent was in the labor force, and "0" otherwise. Hence, in the regression equation its value multiplied by 100 reflects the probability that a woman with the characteristics reflected by the values of the independent variables would be in the labor force. The estimated equation is:

$$\begin{aligned} \text{MWLFP} = & -.04 + .0012 \text{WWR} - .000013 \text{FIR} - .0163 \text{DHE} \\ & \quad (8.29) \quad (-5.05) \quad (-1.57) \\ & -.033 \text{HW} + .09 \text{HL} + .03 \text{ATWM} + .07 \text{HA} \\ & \quad (-15.12) \quad (-2.47) \quad (2.42) \quad (10.04) \end{aligned}$$

$$\text{Adjusted } R^2 = .19$$

(t values are in parentheses)

where:

- WWR is an estimate of the wife's potential market wage rate (measured in cents per hour) based on her education and size of residence. $\text{WWR} = -12.83 + 16.67 (\text{years of education}) + 7.14 (\text{residence})$.
- FIR is the total annual family income less the respondent's earnings in 1966 (measured in dollars per year).
- DHE is the deviation of the modal earnings in the husband's educational and occupational group from the husband's earnings divided by the standard deviation for earnings of the group.
- HW the home wage of the wife is a derived variable based on the number and ages of the children in the household (the higher the scale value, the greater is the home wage of the wife).
- HL is a dummy variable for health limitations, with the value 1 if the respondent had any health limitations on the activities she could perform.

ATWM is a scale variable that registers the respondent's attitude toward working mothers (the highest scores are for the most favorable opinions).

HA is a scale variable reflecting the respondent's perception of her husband's attitude toward the propriety of women working (higher values reflect more favorable attitudes).

Below we examine the regression coefficients in some detail as a means to discuss research problems in this aspect of the supply of women's labor to the market. The coefficient for the women's wage rate indicates that an increase in the potential wage by one cent is associated with a .12 percentage point increase in labor force participation. Hence, it seems that higher wages for women would increase their labor force participation. According to the regression results an increase of 50 cents an hour in the average pay to women, ceteris paribus, would result in the labor force participation rate for married women, spouse present increasing from 45 percent to 51 percent. It follows that to the extent that discrimination lowers the market wage of women, their labor force participation is reduced.

Unfortunately, the method used to estimate the market wage of the wife (and similar ones used by other researchers using micro-data) precludes our being very confident about the above conclusion. The observed wages of women already in the labor force are used (via the wage equation) to estimate the market wage of women not in the labor force. To the extent that experience on-the-job is important, and to the extent that women in the labor force have different characteristics and, hence, market productivity from women who remain at home, the estimate of the

potential wage and the regression coefficients based on the estimate may not be accurate. Future research in this area should model both wage determination and the effect of potential wages on participation more carefully.⁴⁹

The negative sign on the coefficient for family income less respondent's earnings indicates that, ceteris paribus, women in families where the contribution of other family members is small are more likely to be in the labor force than women in families where this contribution is large.

The negative coefficient for the standardized deviation of husband's expected earnings from his actual earnings is consistent with the hypothesis that a temporary decrease in family income would drive additional family members into the work force. It is also consistent with the hypothesis that in families where the husband's earnings are below average for his social reference group, the wife is more likely to be in the labor force to help the family "keep up with the Joneses."

The two different interpretations of the sign of this coefficient illustrate a broader problem connected with research on women in the labor force. It is difficult to test competing hypotheses relating to the motivation behind an observed action. Nevertheless the extensive data

49

An example of a theoretically more elegant approach is presented in a recent paper by James Heckman, "Shadow Prices, Market Wages and Labor Supply." He uses the National Longitudinal Survey data to estimate functions that predict the value a woman places on her time (the asking wage) and the wage a firm would be willing to pay for her labor market services (the offered wage). Since a woman will only work if the wage rate that she is offered is at least as great as her asking wage, the probability that a woman with certain characteristics will be in the labor force can be estimated from these two functions.

available from the National Longitudinal Surveys will provide researchers with an opportunity to test some of the competing hypotheses.

The negative coefficient for the variable home wage of wife shows that the more valuable the woman's time in terms of home productivity (represented by the number and ages of her children) the less likely is her participation in the labor force. Hence, the presence of children might be considered a barrier to entry.

It is obvious that cross section regression analysis implies nothing definitive about the direction of causation. In fact, we are measuring only the degree of association between an independent variable and the alleged "dependent" variable. The direction of causation can only be inferred from the explicit (or implicit) economic model underlying the observed statistical specification (e.g., regression equation). Often cross section data do not lend themselves to unambiguous tests of causal inference.

The home wage variable provides a good illustration of this problem. Although we have advanced (above) the interpretation that the presence of young children inhibits the labor force participation of married women (at least) two other interpretations are possible. That is, women who do not participate in the labor force are likely to have more children than women who do participate (i.e., the direction of causation goes from market work to child rearing activities). Perhaps women choose to engage in some combination of their labor market and child rearing activities early in their marriage, and what we observe in the regression equation is that the presence of many children is associated with low labor force participation (a decision is made concerning both lifetime work and the

number of children and there is therefore no causal direction).

The positive regression coefficients for the variables reflecting the wife's attitude toward working mothers and the husband's attitude toward women working show the expected association with labor force participation. Needless to say, it is impossible in these cases to establish the direction of causation. Hence, one area for future research related to barriers to entry involves uncovering those factors which are important in attitude formation. The attitudes of both the husband and wife seem to be important correlates of the labor force participation decision.

Three general conclusions related to future research emerge from the examination of a cross section study of the labor force participation of married women. First, the correct modeling of the labor force behavior of women involves the modeling of the fertility decision and wage determination. Second, it is difficult to obtain the empirical counterparts to the theoretical constructs. Third, it is virtually impossible to determine causality using one year's cross section data.

In section D the use of longitudinal data to clarify some of the cross section results is explained. The discussion of lifetime labor force participation of women (in section E) also sheds additional light on the (point-in-time) labor force behavior just analyzed.

D. Inferences from Cross Section Studies and the Use of Longitudinal

Data

Cross section studies like the one discussed in section C are often used to predict what would happen to the behavior of an individual if

certain circumstances changed. For instance, the study discussed could be used to predict that if family income rose, the wife would less likely be in the labor force. The inference is based on a comparison of the labor force participation of wives in families with different incomes, ceteris paribus.

With longitudinal panel data researchers are no longer bound to compare the behavior of otherwise similar individuals under different circumstances to predict the effect of a change of circumstance. Instead, individuals can be observed over the course of time to ascertain directly how their behavior changes when their circumstances change. In this way the National Longitudinal Surveys promise to be a valuable tool for labor market studies.

Future research concerned with the employment of women could make good use of longitudinal samples to supplement and clarify the inferences obtained using cross section data. We present two tables from Dual Careers (Vols. 2 and 3) to illustrate how the National Longitudinal Surveys can help researchers studying women in the labor market.

The inferences relating to the effect of marital status on labor force participation obtained by comparing the labor force participation of married and unmarried women in the 1967 cross section survey are different from the inferences obtained by examining the labor force participation of women who change marital status between 1967 and 1969 (Table 1). White women who were married in 1967 and who were not married in 1969 exhibit a participation rate in 1969 of 56.6 percent, substantially lower than the 1967 rate for any of the categories of women who were unmarried

Table 1 Survey Week Labor Force Participation Rates, 1967 and 1969, by Comparison of Marital Status in 1967 and 1969, (White Respondents)

Comparison of marital status	Total number (thousands)	Participation rate 1967	Participation rate 1969	Percentage point change 1967 to 1969
	WHITES			
Married both years ^b	12,051	42.9	46.6	+3.7
Never married both years	607	85.6	84.8	-0.7
Nonmarried both years ^c	1,030	73.2	76.6	+3.4
Married 1967, nonmarried 1969	532	47.4	56.6	+9.2
Nonmarried 1967, married 1969	186	58.6	58.6	0.0
Other ^d	47	a	a	a
Total or average	14,453	47.4	51.0	+3.6

Source: Dual Careers, Vol. II, page 23.

a Percentage not shown where base represents fewer than 25 sample cases.

b Married with spouse present.

c Nonmarried here includes divorced, separated, widowed, and married, spouse absent. Never married are separately classified in this table.

d Includes never married 1967, married 1969 and never married 1967, nonmarried 1969.

that year. Women who were not married in 1967 but who became married in 1969 do not on the average reduce their labor force participation, as a comparison of the participation rates of married and nonmarried women in the 1967 cross section implies.

Another attribute of longitudinal panel data is shown in Table 2. Labor force status in past years (1967, 1969) seems to be strongly related to labor force participation in 1971. While 51.4 percent of all married women, husband present were in the labor force at the time of the 1971 survey, the 1971 participation rate is substantially higher for those married women, husband present who were in the labor force in 1967 (78.9 percent) or 1969 (84.5 percent). Hence, the table shows that the variable "past labor force status", which becomes available only from longitudinal surveys, might be an important correlate of current labor force participation. Because the current labor force experience of women can be cross classified against their labor force experience in previous years the data permit the causes and consequences of employment experience to be analyzed more readily.

In the tables above we have shown how the National Longitudinal Survey data will help to advance our knowledge about women in the labor market. Table 1 showed an example where the inference from a single year's survey (cross section) differs from the inference from a comparison of two years. Hence, the data raise questions about the validity of cross section results. Table 2 illustrated a case where information available from a longitudinal survey (i.e., labor force status in previous years) seems to be useful in explaining current labor force status.

Table 2 Labor Force Participation Rate in Survey Week, 1971,
by Labor Force Status in Survey Weeks, 1967 and 1969,
Marital Status, 1971 (White Respondents)

Labor force status in 1967 and 1969 and marital status 1971	Number in civilian population, 1971 (thousands)	Labor force participation rate
WHITES		
<u>Survey week, 1967:</u>		
In labor force	6,694	81.8
Married, husband present	5,202	78.9
Other ^a	1,493	91.7
Out of labor force	7,400	31.0
Married, husband present	6,779	30.3
Other ^a	621	38.9
Total civilian population	14,092	55.1
Married, husband present	11,979	51.4
Other ^a	2,114	76.2
<u>Survey week, 1969:</u>		
In labor force	7,139	86.1
Married, husband present	5,597	84.5
Other ^a	1,542	92.0
Out of labor force	6,786	22.3
Married, husband present	6,263	21.8
Other ^a	523	28.5
Total civilian population	13,925	55.0
Married, husband present	11,860	51.4
Other ^a	2,065	75.9

Source: Dual Careers, Vol. III. Preliminary draft--not to be
quoted or cited until final publication.

a Include never married; married, husband absent; separated;
widowed; and divorced.

E. Lifetime Labor Force Participation of Women

Most research on the labor force participation of married women has examined the factors affecting the number of hours per week supplied, the number of weeks of work per year, or whether a woman is in the labor force during a particular survey week.⁵⁰ The retrospective work history and personal data available in the National Longitudinal Survey permit the examination of what is perhaps a more significant dimension of the problem, that is labor force participation during the woman's entire adult life.

Study of the lifetime participation pattern is important for at least two reasons in addition to intrinsic interest in the subject. It has been shown elsewhere that labor force experience is an important determinant of earnings.⁵¹ Hence, lifetime participation is an important determinant of the earnings position of women at any single point in their lifetime. Secondly, the modeling of lifetime participation decision yields significant insights into the interrelation of the employment decision, the fertility decision, and the role of women in society.⁵²

⁵⁰James N. Morgan et al., pp. 107-39, used a sample of 1828 white and 213 nonwhite wives to regress number of years worked during marriage against age, number of living children of head, race, education and physical condition. Glen Cain, pp. 98-101 used data from the Growth in American Families Survey (2240 wives, white aged 18 to 39 nonfarm residents) to regress the ratio of years worked while married to years married against variables representing wife's earnings capacity, predicted husband's income, family income (less wife's earnings), months pregnant, age variables, wife's education, urban residence, marital stability, and income history.

⁵¹See Sandell; Mincer and Polacheck.

⁵²Dr. Sandeli is currently studying the work histories of women in different marital, labor force, age, and racial groups in an effort to examine the lifetime labor force behavior of women and the factors that influence it.

According to the National Longitudinal Survey data, mothers (spouse present) between the ages of 30 and 44 who were employed in 1967 had worked six months or more, on average, in 57 percent of the years that had elapsed since leaving school, 56 percent of the years since getting married, and only 51 percent of the years since the birth of first child. On the other hand, they had worked on average in 71 percent of the years between marriage and the birth of their first child. The standard deviations for these periods were .25, .29, .31, and .39, respectively.

As a vehicle for discussion, let us assume initially that the conceptual framework presented in section B is appropriate for analyzing the lifetime participation pattern of women. That is, the allocation of a woman's time to market work depends on: her potential market wage, family income, the home wage, her and her family's attitudes toward for her working in the market. In the analysis that follows we explore some of the methodological and empirical problems involved in trying to apply this model to a set of data.

On the theoretical side it is readily apparent that certain factors (i.e., the market wage and the home wage) that might be considered exogenous (i.e., their values can be assumed to be fixed) for a labor force decision at a moment in time can no longer be assumed to be so in the lifetime participation model. While the number of children in a family at a moment in time might be considered to be fixed, over a woman's lifetime this assumption is invalid. In short, the simplified framework

is no longer totally applicable and some of the "independent" variables (e.g., children, market wage) must be included also as dependent variables in a complete lifetime participation model.

One important research task that becomes evident is determining the direction of causality between certain variables. Do high wages lead to greater market participation or does greater market participation (experience) lead to high wages? Stated somewhat differently, to what extent does the cross-sectional relationship between wage rates and labor force participation reflect merely the facts that persistent labor force participation in the past (1) results in high wage rates and (2) is likely to be associated with current labor force participation? Do women with favorable attitudes toward market work participate more fully in the labor market or does greater labor market participation lead to more favorable attitudes toward market work? Some of the econometric problems involved can be solved using a two-stage estimating procedure. The problem of determining the direction of causality might be approached indirectly by examining the attitudes, characteristics and labor market behavior of the sample of women during a few different years of the National Longitudinal Surveys.

It is worthwhile to consider some of the empirical problems involved in studying lifetime labor force participation, particularly when researchers must rely on retrospective data. Ideally variables used in the model should be obtained at the time the behavior decisions are made but this information is often not available to researchers. For example,

the market wage for the early years of labor force participation is often not available from surveys of women who are currently, say, in their thirties or forties. To deal with this problem, researchers could use a proxy (e.g., the current wage) or they might attempt to estimate the omitted variables from reported information, but in either case the solution will doubtless leave something to be desired. Thus, while retrospective data offer opportunities for valuable research, they also impose new obstacles for researchers.

12

III CONCLUSION

A review of the literature indicates that on the topic of women's participation in the labor force, the attention of the economics profession has been directed more heavily toward analyses of the supply side than toward analyses of either the demand side or the interaction between the two. Yet, an understanding of the barriers women face necessitates studies of both sides of the labor market.

For instance, research on the occupation, industry and firm specific demand for women workers is essential. Works (of either a theoretical or empirical nature) on these topics have only recently begun to appear and are still few in number.⁵³ In part this dearth of knowledge is a function of the relative scarcity of easily accessed data. Detailed information on wages, employment and attitudes, collected from private firms, would greatly contribute to our understanding of the demand-related barriers to entry or re-entry which women face.

On the supply side, such variables as low wages, the presence of children and unfavorable attitudes toward women working outside the home can all be considered barriers to the labor force participation of women. However here, empirical findings are frequently ambiguous in the absence of reasonably complete models of women's behavior. The need for more complete modeling of the activities of women over their life cycle, of which labor market participation is only a part, seems apparent.

⁵³

The classic work in the field is undoubtedly Becker (1957). Examples of recent analyses include Arrow; Madden; Shepherd and Levin.

A P P E N D I X

THE LABOR MARKET EXPECTATIONS OF YOUNG WOMEN

In this section we use two cohorts from the National Longitudinal Survey (women 14 to 24 and women 30 to 44 years of age) to examine the labor force expectations at age 35 of young women and to compare this with the reality of the actual labor force experience of middle-aged women.

Tables 3 and 4 below show the responses of women 14 to 24 to the question "What would you expect to be doing when you are 35 years old?" Table 3 groups the respondents by age group while Table 4 categorizes the respondents by expected education at the time of the survey. Table 5 shows the actual labor market status, by education completed, of women aged 30 to 44 years of age.

Although we will not attempt a complete analysis of labor market expectations in this paper, the following results seem clear from the tables presented. Young women in each age and education group seriously underestimate their future labor force participation (as judged by the actual experience of older women). To the extent that current trends in female labor force participation will continue (to increase) in the future, the underestimates are even more serious than indicated in the tables.

It is interesting to note that as the older white women in the 14 to 24 age group have more realistic (higher) labor force participation expectations, while the older black women in this group have lower labor

Table 3 Women's (Aged 14 to 24) Expectation of Work Status at Age 35 by Present Age^a, 1968

	Age ^c			Total
	14 to 17	18 to 20	21 to 24	
	WHITES			
Total number (thousands) ^b	307	2,623	3,995	6,925
Percent working	21.4	22.8	34.2	29.3
Percent keeping house	78.6	77.2	65.8	70.7
	BLACKS			
Total number (thousands) ^b	98	350	509	957
Percent working	62.2	48.8	56.7	54.3
Percent keeping house	37.8	51.2	43.3	45.7

- a Respondents from the 1968 National Longitudinal Survey women's cohort aged 14 to 24.
- b Total excludes those respondents answering "don't know," "not applicable" or "other."
- c Age as of date interviewed, 1968.

Table 4 Women's (Aged 14 to 24) Expectations of Work Status at Age 35
by Expected Educational Attainment^a, 1968

	Expected educational attainment ^c			Total
	High school	13 to 15 years	16 Years+	
WHITES				
Total number (thousands) ^b	1,655	1,385	4,265	7,305
Percent working	26.8	18.1	32.7	28.6
Percent keeping house	73.2	81.9	67.3	71.4
BLACKS				
Total number (thousands) ^b	206	155	488	849
Percent working	62.1	60.6	57.7	59.3
Percent keeping house	37.9	39.4	42.3	40.7

a Respondents from the 1968 National Longitudinal Survey women's cohort aged 14 to 24, and those who were in school in 1968.

b Excludes those answering "don't know," "not applicable," or "other."

c Excludes those answering educational attainment of 11 years or less.

Table 5 Women's Employment Status by Education Completed of Women 30 to 44 Years of Age^a, 1967

	Education completed				Total
	11 Years or less	12 Years	13 to 15 Years	16 Years+	
WHITES					
Total number (thousands)	5,623	6,894	1,695	1,295	15,553
Percent employed ^b	44.0	46.1	44.8	53.5	45.8
Percent full-time ^c	77.3	69.6	63.6	72.1	72.0
Percent part-time	22.7	30.4	36.4	27.9	28.0
Percent unemployed	2.6	1.5	2.0	1.0	1.9
Percent out of labor force	53.4	52.4	53.2	45.0	52.3
BLACKS					
Total number (thousands)	1,213	455	97	107	1,879
Percent employed ^b	56.8	65.2	68.5	94.5	61.5
Percent full-time ^c	60.7	74.0	85.4	87.8	68.0
Percent part-time	39.3	26.0	14.6	12.2	32.0
Percent unemployed	2.6	4.2	4.0	2.1	5.0
Percent out of labor force	53.4	30.6	27.0	3.4	33.5

- a Respondents from the 1967 National Longitudinal Survey women's cohort aged 30 to 44.
- b Employed, unemployed, out of labor force, part-time and full-time; these categories are from the National Longitudinal Studies' employment status recode variables.
- c Full-time and part-time classifications are only for those who are employed.

force participation expectations. Black women seem to underestimate their future labor force participation less than white women. Blacks between 14 and 24 predict a labor force participation rate of 51 percent compared to an actual rate of 67 percent; whites predict a rate at age 35 of 29 percent compared to an actual rate of 48 percent.

To the extent that this underestimate of future labor force participation is concomitant with little interest in formal and on-the-job training, some women will be faced with poor occupational opportunities when and if they do decide to enter the labor market. Unrealistic low expectations of future labor market participation can create a self-fulfilling prophecy if these women, with little training, are offered low wages and, hence, choose not to accept employment.

An important area of research emerges from the results presented here. How do young women form their labor market behavioral expectations? How and when do their expectations change? These questions and related ones should be answered so that self-imposed barriers to the employment of women can be eliminated.

B I B L I O G R A P H Y

- Arrow, Kenneth. "The Theory of Discrimination." Discrimination in Labor Markets. Edited by Orley Ashenfelter and Albert Rees. Princeton: Princeton University Press, 1973, pp. 3-33.
- Bass, Bernard M.; Krusell, Judith; and Alexander, Ralph A. "Male Managers' Attitudes toward Working Women." American Behavioral Scientist, 15 (Nov., 1971), 221-36.
- Becker, Gary. The Economics of Discrimination. Chicago: University of Chicago Press, 1957.
- _____. "A Theory of Marriage: Part I," Journal of Political Economy, 81 (July/August, 1973), 813-46.
- Bergman, Barbara. Comment on "Sex Discrimination in Wages." Discrimination in Labor Markets. Edited by Orley Ashenfelter and Albert Rees. Princeton: Princeton University Press, 1973, pp. 152-54.
- Bernard, Jessie. Women and the Public Interest. New York: Aldine-Atherton, 1971.
- Blau, Francine. "Sex Segregation by Enterprise." Ph.D. dissertation in progress, Harvard University.
- Bowen, William G. and Finegan, T. Aldrich. The Economics of Labor Force Participation. Princeton: Princeton University Press, 1969.
- Broverman, Donald; Broverman, Inge ; Clarkson, Frank; Rosenkrantz, Paul; and Vogel, Susan. "Sex-role Stereotypes and Clinical Judgments of Mental Health." Journal of Consulting and Clinical Psychology, vol. 34, no. 1 (1970), 1-7.
- Cain, Glen G. Married Women in the Labor Force: An Economic Analysis. Chicago: University of Chicago Press, 1966.
- Carnegie Commission on Higher Education. College Graduates and Jobs. New York: McGraw-Hill Book Co., April, 1973.
- Cohen, Malcolm S. "Married Women in the Labor Force: An Analysis of Participation Rates." Monthly Labor Review, 96 (Oct. 1969), 31-35.

- Dahlstrom, Edmund and Liljestrom, Rita. "The Family and Married Women at Work." The Changing Roles of Men and Women. Edited by Edmund Dahlstrom. Boston: Beacon Press, 1971, pp. 19-58.
- Day Care Council of New York. Employer Personnel Practices and Child Care Arrangements of Working Mothers in New York City. Women's Bureau, Dept. of Labor. Washington, D.C.: U.S. Government Printing Office, 1973.
- Epstein, Cynthia Fuchs. Woman's Place. Berkeley: University of California Press, 1971.
- Freeman, Jo. "Growing Up Girlish." Transaction, 8 (Nov./Dec., 1970), 36-42.
- Fuchs, Victor R. "Differences in Hourly Earnings between Men and Women." Monthly Labor Review, 94 (May, 1971), 9-15.
- Gold, Doris B. "Women and Voluntarism." Women in Sexist Society. Edited by Vivian Gornick and Barbara K. Moran. New York: Basic Books, pp. 533-54.
- Goode, William. "Family Life of the Successful Woman." Corporate Lib: Women's Challenge to Management. Edited by Eli Ginzberg and Alice M. Yohalem. Baltimore: Johns Hopkins University Press, 1973, pp. 97-117.
- Gronau, Reuben. "The Effect of Children on a Housewife's Time." Journal of Political Economy, 81 (March/April, 1973), 168-99.
- Hacker, Helen Mayer. "Women as a Minority Group." Social Forces, 31 (Oct., 1951), 60-69.
- Harris, Ann Sutherland. "The Second Sex in Academe." AAUP Bulletin, 58 (Fall, 1970), 283-95.
- Hartley, Ruth E. "Women's Roles: How Girls See Them." AAUW Journal, 55 (May, 1962), 212-15.
- Heckman, James. "Shadow Prices, Market Wages and Labor Supply." Forthcoming, Journal of Political Economy.
- Hedges, Janice N. and Barnett, Jeanne K. "Working Women and the Division of Household Tasks." Monthly Labor Review, 95 (April, 1972), 9-14.
- _____ and Bemis, Stephen E. "Sex Stereotyping: Its Decline in Skilled Trades." Monthly Labor Review, 97 (May, 1974), 14-22.

Holmstrom, Engin Inel and Holmstrom, Robert W. "The Plight of the Woman Doctoral Student." American Educational Research Journal, 11 (Winter, 1974), 1-17.

Horner, Matina. "Fail: Bright Women." Psychology Today 3 (Nov., 1969), 36-38 and 62.

Howe, Florence. "Sexual Stereotypes Start Early." Saturday Review, 54 (Oct. 16, 1971), 76-94.

Killian, Ray A. The Working Woman: A Male Manager's View. American Management Association, 1971.

Kim, Sookon. "Determinants of Labor Force Participation of Married Women." Unpublished Ph.D. dissertation, University of Minnesota, 1971.

_____ ; Roderick, Roger D.; and Shea, John R. Dual Careers: A Longitudinal Study of the Labor Market Experience of Women, vol. II. Columbus: The Ohio State University, Center for Human Resource Research, 1972.

Komarovsky, Mirra. Blue-Collar Marriage. New York: Vintage Books, 1967.

_____. "Functional Analysis of Sex Roles." American Sociological Review, 15 (Aug., 1950), 508-16.

Kreps, Juanita. Sex in the Marketplace: American Women at Work. Baltimore: Johns Hopkins Press, 1971.

_____. "The Sources of Inequality." Corporate Lib: Women's Challenge to Management. Edited by Eli Ginzberg and Alice M. Yohalem. Baltimore: Johns Hopkins University Press, 1973, pp. 85-96.

Kruger, Daniel H. and Smyth, J. Douglas. "Financing Career Training for Widowed Mothers: A Proposal." Industrial Relations, 10 (Oct., 1971), 145-59.

Leibowitz, Arleen. "Education and Home Production." American Economic Review, Proceedings, 64 (May, 1974) 243-50.

Long, Larry H. "Women's Labor Force Participation and the Residential Mobility of Families." Social Forces, 52 (March, 1974), 342-49.

- Low, Seth and Spindler, Pearl G. Child Care Arrangements of Working Mothers in the United States. Children's Bureau, Department of Health Education and Welfare and Women's Bureau, Department of Labor. Washington, D.C.: U.S. Government Printing Office, 1968.
- Madden, Janice Fenning. The Economics of Sex Discrimination. Lexington, Mass.: Lexington Books, 1973.
- Mahoney, Thomas A. "Factors Determining the Labor Force Participation of Married Women." Industrial and Labor Relations Review, 14 (July 1961), 563-77.
- Malkiel, Burton G. and Malkiel, Judith A. "Male-Female Pay Differentials in Professional Employment." American Economic Review, 63 (Sept., 1973), 693-705.
- Mancke, Richard B. "Lower Pay for Women: A Case of Economic Discrimination?" Industrial Relations, 10 (May, 1971), 316-26.
- Mincer, Jacob. "Labor Force Participation of Married Women: A Study of Labor Supply." Aspects of Labor Economics. National Bureau of Economic Research. Princeton, N.J.: Princeton University Press, 1962, pp. 63-105.
- _____ and Polacheck, Solomon. "Family Investments in Human Capital: Earnings of Women." Journal of Political Economy, 82 (March/April, 1974), 76-111.
- Moore, Kathryn M. "The Cooling Out of Two-Year College Women." Prepared for presentation to the American Educational Research Association, Chicago, Ill., April 1974.
- Morgan, James N.; David, Martin H.; Cohen, Wilbur J.; and Brazier, Harvey F. Income and Welfare in the United States. New York: McGraw Hill, 1962, pp. 107-39.
- Myrdal, Alva and Klein, Viola. Women's Two Roles. London: Routledge and Kegan Paul, Ltd., 1968.
- Oaxaca, Ronald. "Sex Discrimination in Wages." Discrimination in Labor Markets. Edited by Orley Ashenfelter and Albert Rees. Princeton, N.J.: Princeton University Press, 1973, pp. 124-51.
- O'Boyle, Edward; Jusenius, Carol; and Shortlidge, Richard. Dual Careers: A Longitudinal Study of Labor Market Experience of Women, vol. III. To be published. Columbus: The Ohio State University, Center for Human Resource Research.

Oppenheimer, Valerie Kincade. The Female Labor Force in the United States. Berkeley: Institute of International Studies, University of California, 1970.

_____. "The Sex-Labeling of Jobs." Industrial Relations, 7 (May, 1968), 219-34.

_____. "A Sociologist's Scepticism." Corporate Lib: Women's Challenge to Management. Edited by Eli Ginzberg and Alice M. Yohalem. Baltimore: Johns Hopkins University Press, 1973, pp. 30-38.

Paloma, Margaret M. "Role Conflict and the Married Professional Woman." Toward a Sociology of Women. Edited by Constantina Safilios-Rothschild. Lexington, Mass.: Xerox College Publishing, 1972, pp. 187-98.

_____. and Garland, T. Neal. "The Married Professional Woman: A Study in the Tolerance of Domestication." Journal of Marriage and Family, 33 (Aug., 1971), 531-40.

Parnes, Herbert S.; Shea, John R.; Spitz, Ruth S. and Zeller, Frederick A. Dual Careers: A Longitudinal Study of the Labor Market Experience of Women, vol. I. U.S. Department of Labor, Manpower Research Monograph no. 21. Washington, D.C.: U.S. Government Printing Office, 1970.

Rand, Lorraine M. and Miller, Anna Louise. "A Developmental Cross-Sectioning of Women's Careers and Marriage Attitudes and Life Plans." Journal of Vocational Behavior, 2 (July, 1972) 317-31.

Random House Dictionary of the English Language. New York: Random House, 1971.

Robie, Edward A. "Challenge to Management." Corporate Lib: Women's Challenge to Management. Edited by Eli Ginzberg and Alice M. Yohalem. Baltimore: Johns Hopkins University Press, 1973, pp. 9-29.

Roby, Pamela. "Structural and Internalized Barriers to Women in Higher Education." Toward a Sociology of Women. Edited by Constantina Safilios-Rothschild. Lexington, Mass.: Xerox College Publishing, 1972, pp. 121-40.

Roderick, Roger D. and Kohen, Andrew I. Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women, vol. III. Columbus: The Ohio State University, Center for Human Resource Research, 1973.

- Rossi, Alice S. "Women in Science: Why So Few?" Toward a Sociology of Women. Edited by Constantina Safilios-Rothchild. Lexington, Mass: Xerox College Publishing, 1972, pp. 141-53.
- Saario, Terry N.; Jacklin, Carl Nagy; and Title, Carol Kehr. "Sex Role Stereotyping in the Public Schools." Harvard Educational Review, 43 (August, 1973), 386-416.
- Sandell, Steven. "Male-Female Salary Differences among Scientists with Ph.D.'s." Unpublished Ph.D. dissertation, University of Minnesota, 1973.
- Seear, B. N. Re-entry of Women to the Labour Market after an Interruption in Employment. Paris: OECD, 1971.
- Shepherd, William G., and Levin, Sharon G. "Managerial Discrimination in Large Firms." Review of Economics and Statistics, 55 (Nov., 1973), 412-22.
- Spencer, Byron G. "Determinants of the Labour Force Participation of Married Women: A Micro-Study of Toronto Households." Canadian Journal of Economics, 6 (May, 1973), 222-38.
- Stoikov, Vladimir with Dillingham, Alan; McLean, Robert; and Shortlidge, Richard. Recurrent Education. A forthcoming monograph, International Labor Organization.
- Suter, Larry E. "Occupation, Employment and Lifetime Work Experience of Women." Paper presented at the meetings of the American Sociological Association, NYC, August 27, 1973.
- Sweet, James. Women in the Labor Force. New York: Seminar Press, 1973.
- U.S. Department of Labor. Manpower Administration. Manpower Report of the President. Washington, D.C.: U.S. Government Printing Office, 1974.
- U.S. Dept. of Labor. Women's Bureau. "Facts about Women's Absenteeism and Labor Turnover." Washington, D.C.: U.S. Government Printing Office, Aug., 1969.
- Veres, Helen C. "Career Choice and Career Commitment of Two-Year College Women." Prepared for presentation at the American Educational Research Association Convention, Chicago, Ill., April 1974.
- Waldman, Elizabeth and McEaddy, Beverly J. "Where Women Work--An Analysis by Industry and Occupation." Monthly Labor Review, 97 (May, 1974), 3-13.

Weissman, Myrna and Paykel, Eugene J. "Moving and Depression in Women." Society, 9 (July/Aug., 1970), 24-28.

Weitzman, Lenore J.; Eifler, Deborah; Hokada, Elizabeth; and Ross, Catherine. "Sex-Role Socialization in Picture Books for Preschool Children." American Journal of Sociology, 77 (May, 1972), 1126-50.

White, Martha S. "Psychological and Social Barriers to Women in Science." Toward a Sociology of Women. Edited by Constantina Pafilios-Rothschild. Lexington, Mass: Xerox College Publishing, 1972, pp. 300-8.