

UNIV  
SHELF

(Working Paper Series - 117)

PEAK TIME, SLACK TIME: THE ORIGINS OF  
CONTINGENT LABOR DEMAND

by

Susan Christopherson\*

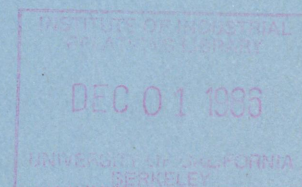
\*Susan Christopherson  
Assistant Professor  
Department of Geography  
U.C.L.A.  
Los Angeles, California 90024  
(213) 825-1912

Draft: October 1986

INSTITUTE OF INDUSTRIAL RELATIONS (Los Angeles)

UNIVERSITY OF CALIFORNIA

LOS ANGELES 90024



PEAK TIME, SLACK TIME: THE ORIGINS OF  
CONTINGENT LABOR DEMAND

by

Susan Christopherson  
University of California, Los Angeles

July, 1986

Preliminary, not for quotation

Research for this paper was conducted with support from a grant  
from the National Science Foundation.

## INTRODUCTION

The on-going transformation of the U.S. economy has had repercussions far beyond a decline in manufacturing jobs and an increase in service employment. What is changing is not just numbers of jobs and their sectoral distribution but the way in which work is organized and distributed. We are witnessing a qualitative transformation of employment not just a quantitative shift.

What is currently referred to as "contingent" work, including part-time employment, independent subcontracting, and temporary help, is increasing as a proportion of total employment in relation to a reorganization of production affecting job hierarchies, job content, and the allocation of work time.

Both the extent and origins of "contingent" labor are matters of some dispute. To address these questions, I will describe trends in organizing and distributing work and secondly, relate these trends to changes in industry production organization, particularly vertical disintegration.

## CONTINGENT LABOR: THE AVAILABLE EVIDENCE

Is contingent labor, in fact, a new phenomenon? How are contingent jobs defined? Obviously there have always been temporary jobs and workers with tenuous connections to particular jobs. What is at issue in the recent trend toward contingency in the U.S. labor market is not whether this is a new phenomenon but whether it manifests changes in the organization of production and therefore, in labor demand and in the employment

relation. The existing definition of part-time work, for example, is that of a completely equivalent substitute for the full-time worker. The part-time worker "backs up" the full-time worker during peak hours or for short shifts. (Owen) The way that part-time workers are now being used in the economy, however, seems to suggest a different allocation of labor than that captured by this definition. Part-time workers, or temporaries, or self-employed contractors are not the equivalents of a full-time workforce but are increasingly doing work designed specifically for a part-time or, more broadly, contingent labor force.

Our ability to interpret this phenomenon is hampered by the necessity of using pre-existing categories, such as part-time work, any one of which may only partially capture the reallocation of work-time. If one examines the full-range of flexibility measures in existing labor force data, however, there is considerable evidence to indicate a structural transformation rather than a labor market response to temporary cyclical conditions.

The number of workers without formal or long lasting ties to their jobs has grown especially fast since the mid-1970s, the point at which industries began to respond to increased competition by internal reorganization. According to Conference Board economist, Audrey Freedman, the number of contingent workers increased 25% between 1975 and 1985 and now stands at approximately 30 million or 27% of the total labor force. This figure includes 760,000 temporary workers; 2 million workers subcontracted by an intermediary firm to perform office work or as security guards; 19.6 million workers employed part-time and

7.8 million self-employed workers. (Serrin) Before exploring the production organization dynamics underlying this change in labor demand I will briefly describe the labor force characteristics of different components of the contingent work force.

#### PART TIME WORK

The number of total work hours has grown very slowly in comparison with the number of jobs and with the growth of the labor force. Between 1948 and 1979, private person hours rose by 37%. In contrast, the over 18 population grew by 59% and the civilian labor force grew by 70%. At the same time, the length of the workweek for full-time employees has not been appreciably reduced. The decline in person hours can be significantly accounted for by the increase in part-time employment.

While women accounted for 80% of the growth in part-time workers between 1968 and 1977, the proportion of women employees who usually work part-time by choice rose only slightly during this 9 year period, less than 1%. These patterns suggest that women tend to be in industries and occupations that are particularly sensitive to market fluctuations. And, a significant and increasing number of women work part-time because full time jobs are not available.

In "Part-time Work and Temporary Work" (Table 4-6 Industry Profile of Persons at Work by Hours Worked and Sex of Worker for 1970, 1980, 1984) Applebaum shows that the highest proportion of part-time workers are in wholesale and retail trade (37%, 1982 ) and services (31%, 1982) In 1974, over 90% of banks, retailers and service and nonprofit organizations reported using permanent

part-time employment in clerical and production jobs. Within these industries, part-time employment is more characteristic in large firms than in small.<sup>1</sup>

Part-time employment is growing faster in service industries than in manufacturing which employs a much lower proportion of part-time workers (7% in 1982). The importance of service sector growth to the increase in part-time employment is demonstrated by the larger proportion of service firms using part-time workers even for professional and technical work.

In concert with general trends toward inter-industrial change from the mid-1970s to the present, the percentage of the labor force employed part-time in manufacturing was relatively static until the mid-1970s and then began a steady rise. In the services and retail and wholesale trade, in contrast, the proportion of the work force that is part-time has increased throughout the period. Over a third of the work force in these industries is now made up of part-time workers.

All occupations show an increase in the proportion employed part-time but that growth is lowest among managers and officials (Figure 1 ). Service occupations have the highest proportion of part-time workers and show the most significant increase in part-time jobs during the period.

#### VOLUNTARY VERSUS INVOLUNTARY PART-TIME WORK

Because part-time work has been considered supply determined voluntary rather than involuntary part-time work has been considered the most appropriate measure of the part-time work force.<sup>2</sup> Involuntary part-time work has, in fact, grown

dramatically during the last decade (Applebaum, Table 4-5). There are significant differences between the voluntary part-time work force which is dominated by white women and the involuntary work force which has a higher proportion of men and minorities. Involuntary part-time work typically takes place in the context of a permanent job, for example in manufacturing or construction, and has historically been the consequence of shortened work weeks in response to a market downturn or materials shortages. Thus involuntary part-time work was more likely to increase during periods of recession.

Involuntary part-time work showed more significant increases in the 1970s, in response to a series of economic downturns and the reorganization of production. While involuntary part-time work is traditionally associated with downturns in the business cycle, it is becoming more and more evident that involuntary part-time work is becoming a standard feature of industries in which it was only occasionally prevalent. In the automobile industry, for example, new union contracts allow companies to hire a permanent part-time work force in return for "life-time" job protection for those workers already employed. (Business Week, April 1, 1985)

#### MOONLIGHTING AND MULTIPLE PART-TIME JOBS

Moonlighting is frequently associated with work off-the-books, more so outside than in the United States. While the proportion of people reporting that they held two jobs has remained relatively steady since the 1960s, the growth in the labor force means that the absolute number of moonlighters has grown to approximately 5 million people (from 4 million in 1970). As with

voluntary part-time work, the reorganization of production raises question about the definition of moonlighting as a secondary source of income.

Groups of industries employing large proportions of workers who moonlight include public administration (7.6), and agriculture and services, (6.1% each) The specific industries with the highest proportion of moonlighters were state and local administration, education, and entertainment and recreation. 30% of moonlighters work in services in their second job, slightly higher than the figure for single job holders. Occupationally the greatest shift can be observed in the number of professional and technical workers who moonlight. Nearly 25% of the multiple job holders in 1979 were professional and technical workers compared with 20% in 1969.

A second development is a change in the gender composition of moonlighters who are much more likely to be women. Women's share of moonlighting nearly doubled between 1969 and 1979. Women moonlighters tend to be employed in education or health services in their primary job. It is their increased moonlighting that accounts for the increase in PTK multiple job holders. Moonlighting particularly increased among single women.

Men moonlighters tend to hold a full-time primary job and a part-time additional job. Nearly half the women, in contrast, held two part-time jobs. Two-fifths of the male moonlighters were self-employed in their second job. Given that self-employment is also strongly associated with off-the books work, these figures suggest that women hold second jobs in the "regular" economy

while men are more likely to freelance for barter and unreported cash payment as well as for reported income. (Sescenski; Brown)

There are also gender differences in the reasons why a second job is taken on or for part-time work. Multiple job holding by men appears to be more cyclical, increasing during periods of economic expansion and decreasing during periods of recession. Multiple job holding by women has shown a linear increase over time (between 1962 and 1980). (Applebaum, 1985: 55 and Figure 2) When queried as to their reasons for working more than one job, more men than women tend to cite enjoyment of the work and saving for the future. Women, particularly minority women, work multiple jobs in order to meet regular expenses. (Seksenski)

#### THE TEMPORARY INDUSTRY WORK FORCE

The temporary help industry has grown phenomenally with changes in the economy that have promoted labor force flexibility. In 1956, only 20,000 people were employed as temporaries while in 1984 2-3 million people were employed as temporaries sometime during the year. (Gannon) Between 1963 and 1979, temporary employment increased 725% in comparison with a 58% increase in non-agricultural payrolls overall. (Mayall and Nelson)

The temporary help industry employs workers in 3 primary sectors, 65% in clerical work, 30% in industrial work and 5% in professional and technical work. (Gannon) A recent study of the temporary help supply industry breaks down temporary employment by specific industry and occupation and importantly differentiates it from other forms of work in the contingent

labor market. The industries making the most extensive use of temporary supply service workers are in health services and finance insurance and real estate. These industries have a predominantly female labor force and are also the major employers of permanent part-time workers. The use of temporary workers in manufacturing is most common in the high growth electronics and computer based industries. Up to 30% of the employees in electronics in Santa Clara valley, California electronics firms are "temps". (Business Week, April 1, 1985))

#### SELF-EMPLOYMENT, INDEPENDENT CONTRACTING AND HOMEWORK

Self-employment is growing much faster among the non-minority population and especially among women (Figures 3 and 4). This differential is presumably attributable to availability of capital for various segments of the population. While comparable data on the self-employed population by industry isn't available at this time, the information on sole proprietorships, including the self-employed, suggests that minorities are highly concentrated in services and women in services and retail trade (Figure 3). Given the distribution of total sole proprietorships, this suggests, that white males are proportionately more likely to be employed in construction and transportation, communications and utilities.

Independent contractors are an important source of high skilled professional workers for industries needing short term specialized services. Independent contractors are prevalent in electronics, chemicals, and business services and among a set of professional occupations, including graphic design, engineering, technical writing, systems analysis and programming. These

occupations have some common characteristics that make them amenable to independent contracting. They are highly skilled but their skills are not industry specific. They can move across industry boundaries with relative ease. At the same time, they frequently work on projects that are non-routine and carried out within a definite time frame. They increase their employment opportunities by concentrating in industrial regions such as the Santa Clara valley in California or Route 128 in Boston.

Independent contracting is also used as a method to obtain workers without paying benefits, thus saving not only benefit costs but bookkeeping. This type of contracting, also subject to abuse of working conditions and "off the books" payment is typified by homework in electronics and apparel, both evidently growing especially in areas with large immigrant labor forces.

The subjects of telecommuter and electronic cottage are prominent in many of the discussions of the telecommunications revolution. These concepts suggest that workers will have the option of staying home to work and will be able to communicate with the office via a commuter and telephone system. The standard image of the telecommuter is that of the skilled professional employed by a large firm. Recent research on the people who work at home shows that most are self-employed. (Christensen) In addition, despite the potential of telecommunications technology for work place options, the actual way in which the technology is being used to organize work in the home differs dramatically from futurist scenarios. For the majority of home-based workers, homework is clerical work, is

done at a piece rate or at a low hourly rate and does not provide access to the benefit packages available to "regular" office workers. Home-based workers also often pay high fees for the use of terminals in their homes

Home-based clerical "independent contractors" currently number between 5,000 and 10,000 workers. There is reason to believe, however, that this form of work will expand. The companies which have homework programs, including New York Telephone, American Express, Walgreens, Investors Diversified Services and Blue Cross Blue Shield, are very large firms which hire large numbers of clerical workers. Of the approximately 250 companies with home-based work programs, between 20 and 30 are known to be in the process of expanding their programs (Applebaum, 1985). The programs now in operation are essentially pilot programs which will be evaluated and redesigned to facilitate homework productivity and supervision. The attractions of home-based work for the firm are substantial. They include increased productivity, elimination of benefits costs, reduction of turnover, and reduced costs related to off-hours computer utilization as well as decreased office space needs (Christensen). Only about 10% of the home-based subcontractors are full-time workers. Many fall into the category which is fastest growing in the labor force as a whole, mothers with young children with husband present.

#### THE DEMAND FOR CONTINGENT LABOR

The expansion of contingent labor force options and the increased proportion of the workforce employed in jobs that are not full-time or stable suggests that present day employment

cannot simply be measured in terms of the number of jobs created or eliminated. One must also look at how the organization and distribution of work has changed. Two part-time jobs may exist where one full-time job existed before. And, those two part-time jobs may have a different content than the full-time job they replace. Work that once took place within a large firm (or within the public sector) may now be sub-contracted to small firms or individuals who provide goods and services across industries. These subcontractors, in turn, may employ a number of people "on-call" in order to remain flexible with respect to the market for their service. Risk is thus transmitted downward to the worker or subcontractor who must adapt with a variety of income formation strategies.

Despite strong evidence of a trend toward labor force flexibility in national labor force statistics, we are only beginning to acquire information on why and how particular industries reorganize and redistribute work. Without this kind of analysis it is impossible to gauge the effects of these changes on job entry, job ladders, skill acquisition and income.

The specific historical conditions inducing U.S. firms to reorganize production and redistribute work have been well documented and can be summarized as follows:

- 1) the continued growth of large firms, particularly multinational firms. This has increased both the scale and scope of management tasks across international boundaries.
- 2) the extension of markets geographically. More firms now operate in national and international markets as opposed to regional markets.
- 3) the differentiation and deepening of product markets by population group.

From the mid-1960s to the early 1970s, these trends induced changes in the sectoral distribution of employment, particularly evidenced in the growth of the service sector. From the mid-1970s on, however, the most significant changes have occurred within industries. (Singelmann and Tienda) During the past ten to twelve years, both manufacturing and the fast growing service industries have attempted to streamline their workforces and alter their occupational profiles so as to cut costs and increase productivity. Central to this reorganization of production in many industries has been a process of vertical disintegration.<sup>3</sup> In vertically disintegrated industries, production is carried out through market transactions among a network of firms rather than within one large firm. The tendency toward vertical disintegration is closely related to the growth of service employment since a significant portion of the production work now being carried out on the market rather than in an integrated firm is composed of services.

Although not technologically driven, the reorganization of production has interacted with technological innovations in various ways:

- 1) Control over larger geographic markets has been facilitated by transport and communication advances which have also decreased costs.
- 2) Data processing innovations have reduced the fixed administrative costs per worker (for payroll, job assignment etc.) allowing enlargement of the labor force and redistribution of work.
- 3) The use of "just-in-time" inventory systems has allowed implementation of computerized inventory control programs.

4) Replacement of some service activities with self-service. Automatic tellers are a primary example.

5) The separation of routine from non-routine functions via specialized computer programs to handle routine transactions.

The last several examples are not technological advances per se but combine the use of computer technology and software development. In some cases, technological advances, such as hand-held computers, are playing a major role in this redeployment. Employers, especially large employers, such as airlines, hospitals and telecommunications firms are using new technology to measure and determine peak and slack times in service demand. They are also able to ensure higher levels of employee surveillance and to monitor productivity.

#### CONTINGENT LABOR AND PRODUCTION ORGANIZATION: A TYPOLOGY

Case studies of a range of industries (cf Baran; Noyelle; Storper and Christopherson; Bluestone et al) indicate that the key factor in explaining industrial organization and employment practices is the competitive conditions faced by firms. As these conditions change so too will firm strategies with regard to labor allocation.

Although industries differ dramatically in their industrial histories and in the specific competitive conditions they face, there appears to be a widespread trend toward vertical disintegration, particularly in the service industries. This trend is documented in 1) analysis of the increasing limits on mass production (Piore and Sabel; Rubery and Wilkinson; Holmes); 2) a number of industry case studies (cf Scott, 1983; 1984; Storper and Christopherson; Noyelle) and 3) the growth of small

firms and the increasing proportion of employment in small rather than in large enterprises. (Office of the President, Report on Small Business in the United States)

In the motion picture industry, for example, the reorganization of production from mass production to a vertically disintegrated structure came about as a result of a supreme court decision which destroyed the assured market for the product by separating production from exhibition. At the same time, in the 1950s, the advent of television, a competitive entertainment medium segmented the market for entertainment products.

In the present day disintegrated industry, production is carried out by means of market transactions among a network of small firms. This is in strong contrast with the organization of production during the "golden age" of the 1930s when large integrated studios turned out several films a week. (Christopherson and Storper) What the present day disintegrated industry structure means for the majority of workforce is uncertainty in the distribution of work. For even the most experienced, short periods of intense work may be followed by periods off the payroll. Whether this work pattern can be counted as employment and unemployment, however, is a thorny issue for skilled workers, when on the payroll, command very high salaries and when off the payroll are frequently searching for or preparing for another intense burst of production activity. (Storper and Christopherson)

Industry subcontractors, small firms or individuals reduce the risks associated with this kind of disintegrated production by subcontracting their services across industry boundaries to a

range of electronic entertainment industries and to advertising. So, the vertical disintegration of the motion picture industry has been paralleled by the emergence of a broadly defined inter-industry entertainment complex. Vertical disintegration of producer services is not inconsistent with the existence of a hierarchy of firms or even with considerable control of markets and finance by a few firms. The international firms at the top of the industry hierarchy "skim off" the most stable and lucrative portion of the market and control the financing and marketing of the most potentially profitable "projects" in the newly defined entertainment (as opposed to motion picture, recording and television) industry (Cieply and Barnes).

In a vertically disintegrated industry, production transactions formerly conducted within the firm are carried out on the market or subcontracted. There are three types of subcontracting. (Holmes) In the first type firms subcontract a portion of production in order to adjust production capacity to fluctuations in the market for a good or service: capacity subcontracting covers the difference between the stable and certain market and peak output levels. In manufacturing, capacity subcontracting is exemplified by subcontracting of excess capacity in the electronics industry. It is frequently used as a buffer or shock absorber to protect a small core labor force from lay-off by subcontracting production of the same product usually produced in the core plant when demand increases. The concomittant process in the service sector is the employment of permanent part-time employees to work during "high transaction"

periods, for example in financial service industries.

The second type of subcontracting is supplier subcontracting in which supplier firms specialize in the production of a particular good or service input and reap scale economies by serving a relatively large number of customer firms, frequently across industry boundaries. Machine "job shops" serve such supplier functions to firms in construction, electronics, aerospace and fabricated metal industries. In the service sector, the classic example is that of food catering services which supply prepared food to airlines, office workers, schools and hospitals. Another example of growing importance is the provision of building maintenance services to state and local government by small private firms.

Finally, there is specialty subcontracting in which subcontracting individuals or firms provide a particular specialized input which the integrated firm cannot produce as well or as cheaply. This category includes a wide range of business services including technical writing, drafting, graphic design or computer programming.

An important differentiating variable among these forms of subcontracting is the nature of the transaction. In capacity subcontracting transactions are relatively routine and regular. This is less so with supplier subcontracting and even less so with specialty subcontracting which may involve a one-time transaction. In this last category, the reported economy may overlap with the unreported economy. One-time transactions are more easily carried out in cash or by barter. To the extent that more economic activities are carried out on the market rather

than in the firm and involve one-time transactions, they may lend themselves to "informality" or unreported economic activity.

Differences in subcontracting behavior are closely related to the type and degree of vertical disintegration. Although the idea of subcontracting deals with production transactions for goods and services rather than labor demand, we can conceive of employment in analogous terms. As with firm subcontracting practices there is a continuum of response rather than a clear break among industries. Labor demand differs depending on the need for regularity in the relationship with the firm, firm specific knowledge and skill requirements.

In industries, such as chemicals and steel, which are dominated by one or several very large firms and have substantial control over the market for their product, firms are likely to be highly integrated. These firms are characterized by a developed internal labor market, a high degree of unionization and require a considerable measure of firm specific knowledge. (Doeringer and Piore) In this type of industry, a stable, full-time labor force is required not least because of the substantial investment in capital equipment. The response of industries such as this to increased competition and market segmentation has been to extend the working time of the "core" labor force through required overtime rather than to decrease costs by hiring part-time workers. In some cases, firms in these industries have reorganized work so as to expand each worker's skills and have decreased the size of the "core" work force through early retirement and attrition. (Piore and Sabel) In these industries

there has been a redistribution of work for the individual worker rather than a division of existing work among different workers.

Another set of industries still relatively vertically integrated and dominated by a small number of very large firms operates in a more uncertain and more competitive market. This group includes firms which have spatially decentralized offices or facilities ( Insurance, Banking, Airlines) and/or large office clerical support functions. Retail also fits within this category. Work in such industries is largely composed of routine transactions which require firm specific knowledge. In these cases, work has been redistributed between a skeleton or core labor force and a peripheral labor force of permanent part-time or on-call workers who essentially serve as capacity subcontractors. They work during peak transaction periods. In many of these cases, peak transaction periods can be predicted or anticipated so that a regular part-time work force with firm specific skills can be maintained over time. (The ability to maintain such a labor force is also a function of labor supply conditions which were discussed in the previous section.)

The third set of industries are vertically disintegrated but composed of small firms, such as those in business services which have on-going transactions with other firms though not on a routine basis. In industries such as the travel industry, industry specific information is more important than firm specific information. Generalized skills, such as cooking (catering), sewing (apparel) the ability to operate business machines or minimal computer literacy (business services), also characterize the work process in many of these firms. The key

differentiating factor between work distribution in these industries compared to the second case is in the routineness of transactions with other firms and in the types of skills required of workers. Flexibility in these firms is introduced through the use of temporary workers with skills general to the industry. Because transactions are not as routine and cannot be predicted as accurately over time, firms require workers who can be hired periodically.

It is the growth of these types of firms that account for the astronomical increase in demand for temporary workers. As has already been noted, the growth of these highly competitive small business firms is the result of increasing vertical disintegration of the previously more integrated industries in the first two categories.

The final set of industries, also vertically disintegrated, is particularly distinguished by the ephemeral nature of production activities. Industries in this category include those such as publishing, advertising, and entertainment which utilize highly skilled labor and those such as apparel or electronics which use low-skilled labor to complete one time orders through "fly-by-night" sweat shops. These firms are not enduring entities but project oriented, organized to last only for the duration of a particular production project. This type of production requires a highly localized labor force. The need for firm or industry specific knowledge is low while the need for highly personal or specialized skills (in advertising, publish etc.) and connection with a combined social-economic network is very high. These are

the ultimately flexible firms in which a group of people are brought together to produce only one component or product.

Obviously we cannot discretely assign industries or firms to one of these categories. Many firms have elements of all four of these production characteristics and thus could potentially utilize all four forms of labor flexibility. Health Care comes to mind as an example of an industry with many such firms.

In an economy in which many firms are vertically disintegrating and reorganizing production to respond to segmented markets and increased competition, labor demand is also changing. In general, service industries show the greatest propensity to decrease average weekly hours per employee over time. The trend toward part-time employment is also strongest in the service industries and occupations. One of the most interesting findings from a recent study of alternative work patterns (Applebaum, 1985) and one with relevance to "off the books" work is that more part-time workers work fewer hours per job. This is particularly true for women and in industries in which most employment is full-time (such as transportation and public utilities). In those service industries, in which a significant portion of employment has historically been part-time, that proportion has increased.

An exception to this pattern is the drop in part-time employment in the Finance, Insurance and Real Estate sector. This is possibly accounted for by the provision of temporary workers by temporary help services and home-workers. (Applebaum, 1985; Mayall and Nelson) It is obvious that different kinds of flexibility are being combined. The determination of peak loads

allows more effective allocation of temporaries while the day-to-day routine work is handled by permanent part-time workers and a smaller crew of full-time managerial staff.

The most significant pattern of labor deployment now emerging is one in which a core of workers is hired permanently and a range of part-time, temporary or contract workers are used as required. As the president of a law firm continuously employing temporary workers put it, "We concluded we were better off maintaining a staff for minimal demand. We can satisfy short-term increases with temporary help. Its more cost effect and better management". And according to the president of a major temporary agency, "Our business has changed from a replacement and fill-in service to an effective tool for managing labor costs." (Oates)

#### CONCLUSIONS

Part time work is currently defined as "providing employment for the millions of Americans who do not want full-time work" (Owen: 11, emphasis mine). The conventional image of the part-time worker is that of a teenager working after school in the local drug store. While these jobs still exist, the variety and range of part-time employment has expanded considerably and with it the range of people doing part-time work. As has already been discussed, part-time work should be understood as a strategy for achieving labor flexibility rather than a solution to a labor shortage or extended business hours. In conjunction with a redefinition of part-time work, the types of people doing part-time work are also changing. This is partially a result of

increasing sophistication in identifying particular population groups as potential workers in different segments of a broadened part-time labor market. The literature on part-time workers now refers, for example, to the use of retirees and part-time professionals (Personnel Journal). As has already been noted this shift is representative of a change in the content and organization of work that is merely captured under the term part-time.

The most notable characteristic of the part-time labor supply, however, is still the distribution by gender. 70% of part-time workers are women. The demand for a flexible workforce was potentially stimulated in its early phases (1960-1975) by the existence of a labor supply (primarily women) willing to work part-time. As more and more work has been restructured to use part-time or temporary workers, however, the number of workers who work part-time jobs voluntarily has decreased relative to the number in involuntary part-time employment. As women have moved into the labor force in greater numbers, work has been restructured so as to employ them part-time rather than full-time. The participation of women in the labor force has also affected the definition of work and the boundaries between wage and non-wage work.

Although women predominate in the category of permanent part-time workers and temporary workers, men dominate the categories of self-employed independent contractors. Thus, as the contingent labor force grows, its composition is changing and segmenting along occupational lines in interaction with those

determined by work time distribution. The redistribution of work time allocation, therefore, not only affects the labor process but also processes of labor segmentation. In fact, some of the most important questions arising from the increasing use of contingent labor derive from the effects of new work patterns on different segments of the labor force. Whereas labor market segmentation has been associated with the inter-occupational distribution of work to different segments of the labor force, we may now see more intraoccupational segmentation based in allocation of work time. (Storper and Christopherson)

Because little systematic research has been done on this topic (that is on the redistribution of work rather than changes in the distribution of workers in fixed and pre-existing job categories) it is only possible to suggest how it intersects with a variety of policy and theoretical questions. Among the most important of these are the impact of large numbers of people without health and welfare benefits, the loss of job mobility ladders, the prospects for worker organization, and the extent of unreported economic activity. To exemplify how a theory of contingency based in production organization might affect the way we approach these issues, I will relate my interpretation of contingency to the latter question, that of "informal" or unreported economic activity.

The reorganization of production and vertical disintegration processes described above have a strong relationship to the growth of unreported economic activities, particularly the under reporting of wages and salaries. As more production transactions become single non-routine transactions, they lend themselves to

cash or barter exchange. And, as more people acquire the capital equipment necessary for carrying out specialized production activities, they will look for additional opportunities to use that equipment in both the reported and unreported economy.

The information available on the composition and growth of "underground" economic activities directly and indirectly suggests that the growth of these activities can be traced to broad changes in the economy, particularly the internationalization of capital and the reorganization of work. Although unreported economic activity is typically seen as a separate category, its relationship to the process of vertical disintegration and de-routinization of production transactions seems unmistakable. <sup>4</sup>

O'Neill's findings that underground activities increase during periods of full employment rather than periods of growth in unemployment suggest that unreported jobs respond to variable demand. In this regard the expansion of unreported jobs is similar to other trends toward variable employment. This relationship is significant not only because it indicates a general direction in the economy, of which underground activity is a part, but also because it potentially explains how conditions are created which provide an incentive to increase work "off-the books".

Given the general demand and supply trends in the economy, it is not difficult to see how expansion of unreported wages and salaries might fit within these trends. Variable employment

increases risks for the individual worker, making it more difficult to calculate future income. The worker, in response, will take the opportunity to supplement income from variable sources some of which may be unreported. These may range from working extra hours in an employer's store to customizing a van, both on a cash basis.

The employer will take advantage of the labor supply available (both skilled and unskilled) to reduce constant costs by allocating work so as to use a variable labor force. This is an interactive process, more part-time or unstable jobs result in more people looking for work to "make sure they don't get caught short".

As described by Gershuny, "The underground economy, which is by definition free of external restrictions, may to some extent counteract the inflexibility of the formal labor market..."(Gershuny:8).

The expansion of the underground economy has important legal and economic policy implications. The tendency of many of those studying the expansion of underground activities to link it to increasing moral laxity in the population, however, has obscured why people are participating in unreported activities. In the U.S. economy, it appears that underground activity is not relegated to the low wage sector nor is it predicated on rising rates of unemployment (though cyclical recessions may have provided a stimulus). It is part of a general process that includes the reorganization of work, a reduction in stable, full-time employment and the transfer of risk to the individual worker.

In conclusion, the increasing importance of contingent work cannot simply be explained away as a short term adjustment within an essentially stable configuration of industrial production. Recent shifts in labor demand and in the allocation of work time are, instead, a direct consequence of structural changes in the ways in which goods and services are produced. While contingent labor represents a cost-minimization strategy in some industries, its relationship to the vertical disintegration of production suggests that it is also a consequence of the tendency toward flexibly specialized industry. In other words, it is a flexibility strategy not just a cost-minimization strategy. With this in mind, we must begin to find new ways to describe and interpret the irregular reality of work for an increasing portion of the labor force.

## Footnotes

1

A comprehensive analysis of part-time work in the economy is contained in Applebaum, 1986. Unless otherwise specified, the table references apply to Tables 4-5 and 4-6 in "Chapter Four, Part Time and Temporary Work"

2

In addition, to the definition of part-time work, we might also question the notion of voluntary. People who are defined as voluntary part-time workers may in fact be working at part-time jobs simply because they are the only ones available in their locality or given their responsibilities in the home.

3

These processes have been associated almost exclusively with the decentralization of economic activity, hence the "New International Division of Labor". Concomittant trends toward centralization have been less regarded until relatively recently as the effects of vertical disintegration for re-agglomeration began to be recognized and analyzed (Scott, 1983; 1984).

4

As part-time employment, self-employment and sub-contracting arrangements increase in the reported economy, structural opportunities are created for workers needing or wanting to supplement their reported incomes with unreported income. At the same time, the increasing instability of work, evidenced by periodic layoffs, shortened work hours and the creation of more part-time and temporary jobs leads to a need to supplement income in various ways including some that are not reported. No acceptably accurate measure of the size or composition of the underground economy has yet been devised. The direct method used by the IRS, based on analysis of tax audit data, appears to be the most reliable but does not successfully measure what appears to the fastest growing component of the underground economy, that of work done "on the side" by people who are already employed and file a tax return on the income they receive from a job in the "above ground" economy.

## References

Applebaum, E. "Alternative Work Schedules of Women", unpublished manuscript, Department of Economics, Temple University, Philadelphia, 1985.

\_\_\_\_\_. "Chapter Four: Part-time and Temporary Work" . Unpublished Manuscript. Philadelphia: Temple University, Department of Economics, 1986

Blades, D. "The Hidden Economy and the National Accounts" OECD Special Report, 1982.

Berger, S. and M. Piore. Dualism and Discontinuity in Industrial Societies Cambridge: Cambridge University Press, 1980.

Brown, S.C. "Moonlighting increased sharply in 1977, particularly among women" Monthly Labor Review Vol. 101 (January) 1978: 27-30.

Carson, C. 1984. "The Underground Economy: An Introduction" Survey of Current Business 64 (July):1961, pp 21-37.

Christensen, K. E. "Impacts of Computer Mediated Home-Based Work on Women and their Families". Working Paper, Center for Human Environments, The Graduate School of the City University of New York, New York, 1985.

Christopherson, S. "Parity or Poverty: The Spatial Dimension of Income Inequality" Working Paper, #21, Tucson: Southwest Institute for Research on Women, University of Arizona, 1986.

Christopherson, S. and M. Storper. "The City as Studio; the World as Back Lot: Vertical Disintegration in the Motion Picture Industry" Society and Space forthcoming, September, 1986.

Cieply, M. and P. Barnes. "Movies and TV Mergers Point to Concentration of Power to Entertain", Wall Street Journal, July 21, 1986: 1, 10.

Denison, E. "Is U.S. Growth Understated Because of the UGE? Employment Ratios Suggest Not," Review of Income and Wealth, March , 1982.

Gershuny, J. "The Informal Economy, Its Role in Post-Industrial Society", Futures, Vol. 11, No.1 (February) 1979: 3-15.

Gutman, P. "The Subterranean Economy" in Financial Analysts Journal, November/December, 1977.

Feige, E. "How Big is the Irregular Economy?" in Challenge, November/December, 1979.

Mayall, D and K. Nelson. "The Temporary Help Supply Service and the Temporary Labor Market" Report Submitted to the Office of Research and Development, Employment and Training Administration,

U.S. Department of Labor, 1982.

Nollen, S., B. Eddy and V. Martin. Permanent Part-time Employment. New York: Praeger Special Studies, 1978.

Noyelle, T.J. "Beyond Industrial Dualism: Market and Job Segmentation in the New Economy" unpublished manuscript, Conservation of Human Resources, Columbia University, New York, 1985.

Oates, S. "Temporary Employment Industry Booming", San Francisco Chronicle, Wednesday, August 7, 1985, Section F, page 6.

O'Neill, D. "Growth of the Underground Economy, 1950-81: Some Evidence from the Current Population Survey" A Study Prepared for the Use of the Joint Economic Committee, U.S. Congress. Washington, D.C.: U.S. G.P.O., 1983.

Owen, J. "Why Part-time Workers Tend to be in Low Wage Jobs" Monthly Labor Review. 101:6: 11-14.

"Part-time Workers: Rising Numbers, Rising Discord," Business Week, April 1, 1985.

Pear, R. "Temporary Hiring by U.S. is Pushed Under New Policy," New York Times, January 2, 1985:1.

Piore, M. and C. Sabel. The Second Industrial Divide. New York: Basic Books, 1984.

Rubery, J. and F. Wilkinson. "Outwork and Segmented Labor Markets" in F. Wilkinson (ed.) The Dynamics of Labor Market Segmentation, pp 115-32. London, Academic Press, 1981.

Scott, A.J. "Industrial Organization and the Logic of Intrametropolitan Location. II: A Case Study of the Printed Circuits Industry in the Greater Los Angeles Region," Economic Geography 59 (4):343-67.

\_\_\_\_\_. "Industrial Location and the Logic of Intrametropolitan Location. III: A Case Study of the Women's Dress Industry in the Greater Los Angeles Area," Economic Geography 60 (1): 3-27.

Sekscenski, E. "Women's Share of Moonlighting Nearly Doubles During 1969-79" Monthly Labor Review, May 1980, pp 36-39.

Serrin, W. "Up to a Fifth of U.S. Workers Now Rely on Part-time Jobs", New York Times August 14, 1983, page 1.

"Short Work Weeks during Economic Downturns" 1983 Monthly Labor Review 106 (June): 3 (9)

Singelmann, J. and M. Tienda. "The Process of Occupational Change in a Service Society: The Case of the United States," in

B.Roberts, R. Finnegan and D. Gallie (eds.) New Approaches to Economic Life. Manchester: Manchester University Press, 1985.

Storper, M. and S. Christopherson. "The Changing Organization and Location of the Motion Picture Industry: Interregional Shifts in the United States" Working Paper: Graduate School of Architecture and Urban Planning, University of California, Los Angeles, 1985.

Tanzi, V. The Underground Economy in the United States and Abroad. New York: Praeger, 1980.

U.S. Department of Labor. Women's Bureau. Time of Change: 1983 Handbook on Women Workers Bulletin 298, 1983.

\_\_\_\_\_. "Work Experience of the Population in 1981-82". Bulletin 2199. Washington, D.C.

U.S. Department of the Treasury, Internal Revenue Service. "Estimates of Income Unreported on Individual Income Tax Returns", Publication 1104 (9-79), Washington, D.C.: Government Printing Office, 1979.

\_\_\_\_\_. "Income Tax Compliance, 1973-1981", Washington, D.C.: Government Printing Office, 1983.

U.S. Small Business Administration. The State of Small Business: A Report of the President. Washington, D.C.: U.S. Government Printing Office.

Work in America Institute. New Work Schedules for a Changing Society. Scarsdale, New York: Work in America Institute, 1981.

**Figure 1**  
**Persons at Work in Non-Farm Occupations**  
**By Sex, 1970 and 1982, % Part-time**

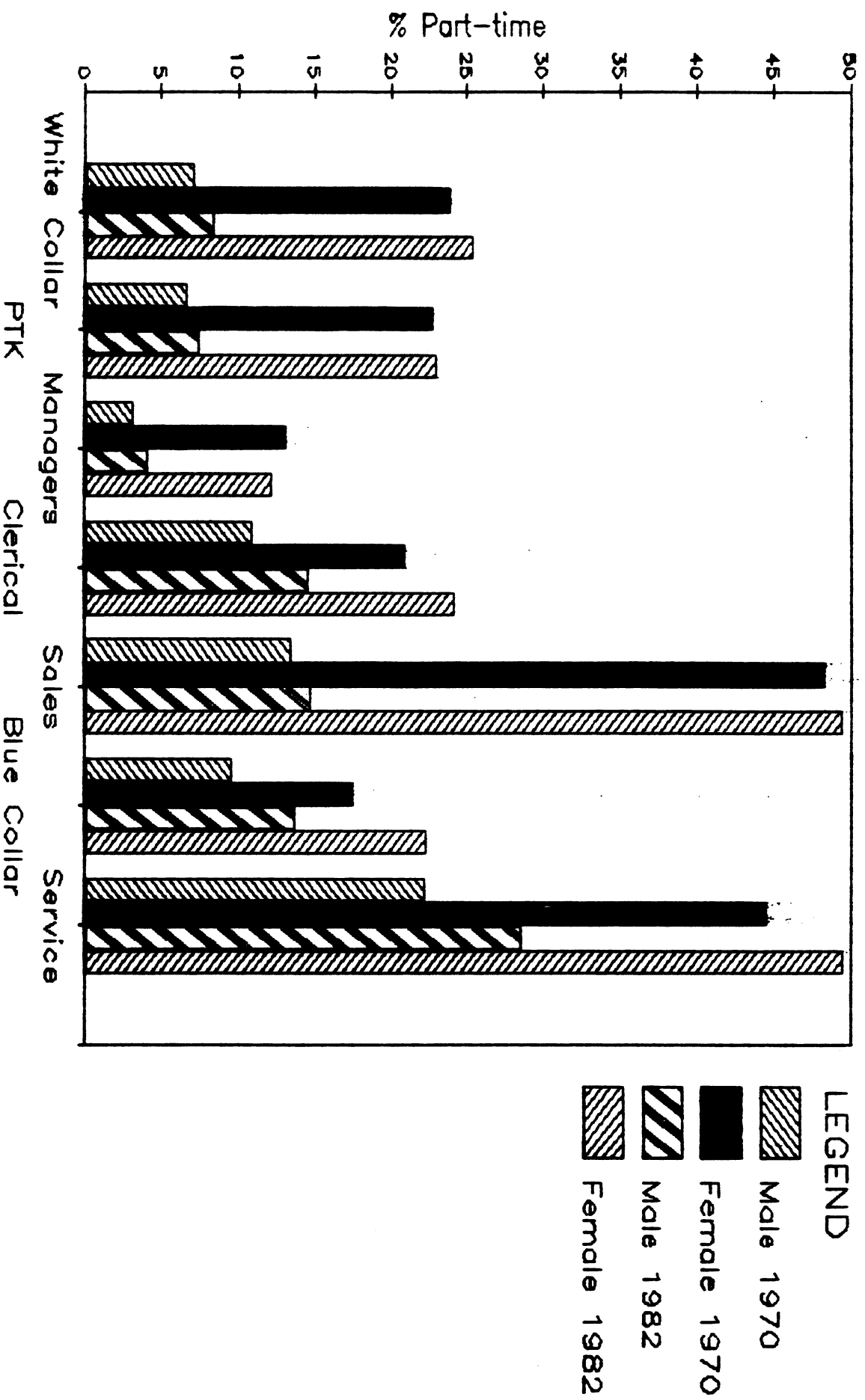
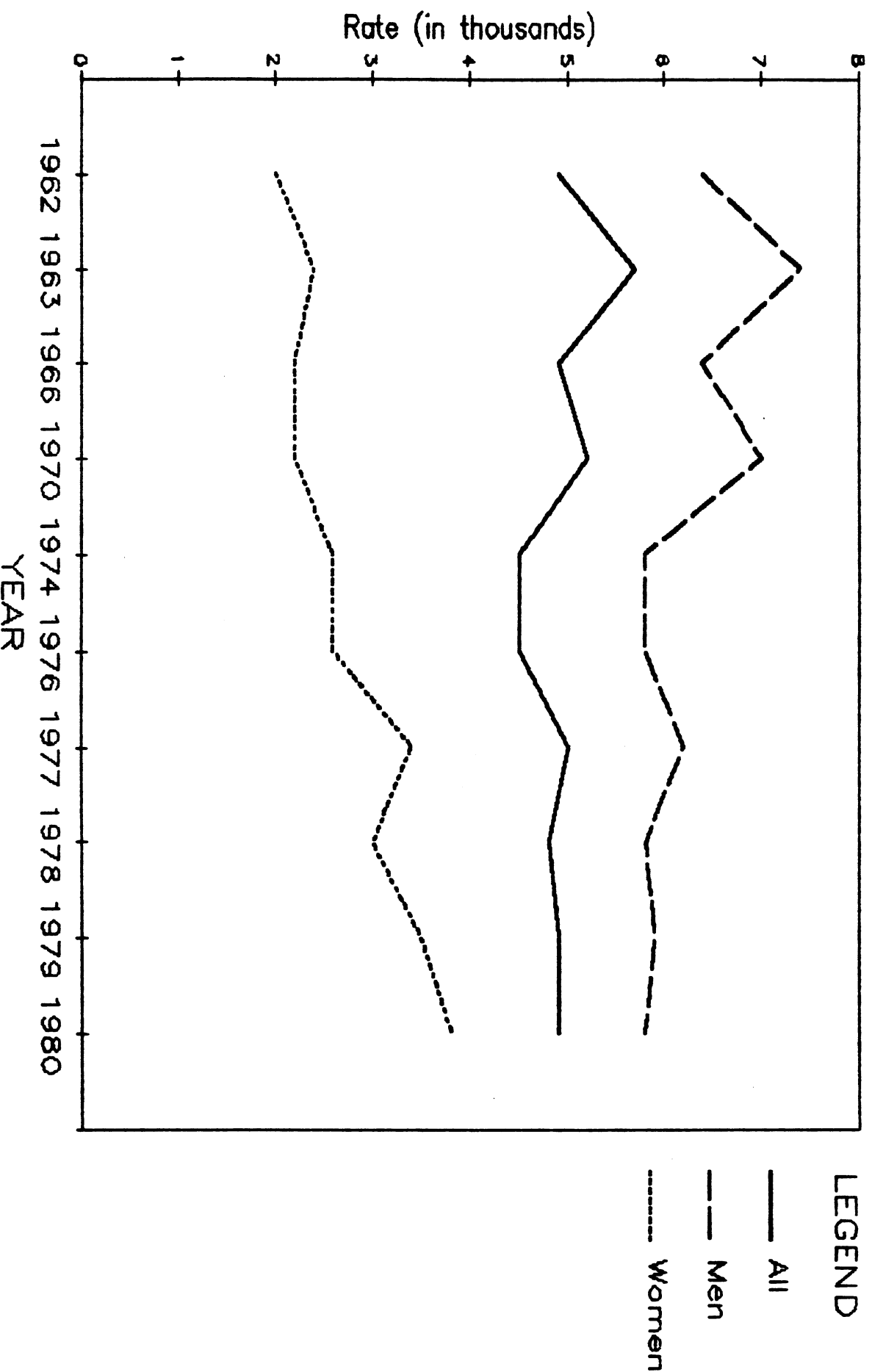


Figure 2  
Multiple Job Holding Rates  
Selected Years, 1962 – 1980



Female Sole Proprietorships  
By Industry, 1977, 1980, 1982

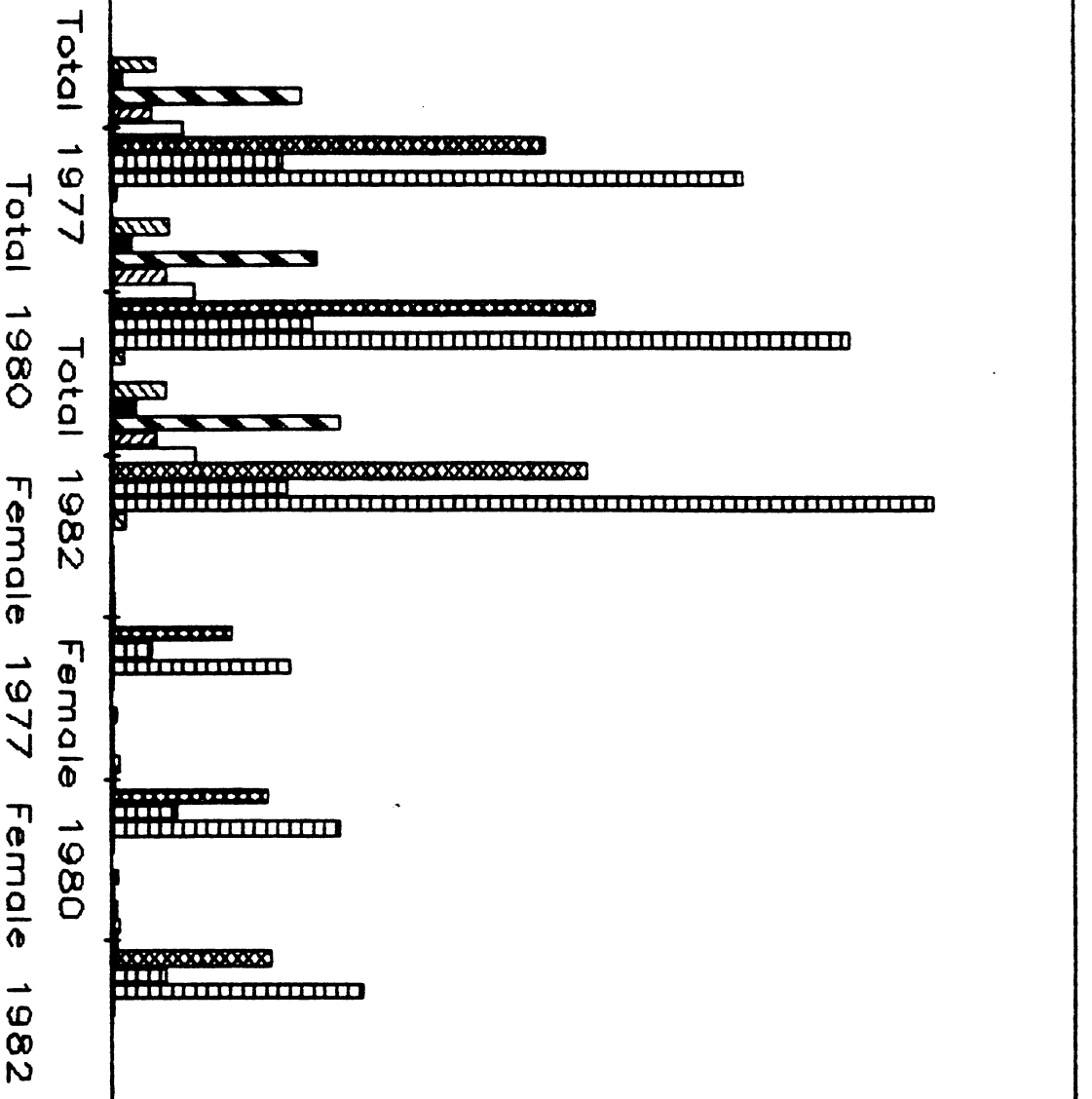


Figure 4  
Self-Employed Persons by Race  
1977 and 1983

