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Blurring Boundaries: Socio-Spatial Consequences of Working at Home

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BLURRING BOUNDARIES: SOCIO-SPATIAL CONSEQUENCES OF WORKING AT HOME

Sherry Boland Ahrentzen

ABSTRACT

This report looks at a cross-section of professional homeworkers in various occupations, both self-employed and corporate-employed. It identifies patterns of divergent activities within the home, assesses the success or hinderance in accommodating multiple roles in the same place, and identifies facility requirements to support home working.

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EXECUTIVE SUMMARY

RESEARCH PURPOSE

When multiple, divergent activities (i.e. childcare, leisure, domestic work, professional work) occur in the same space, changes in the structure of homes and neighborhoods, and in living and work patterns, may occur to accommodate those activities. Identifying these patterns, and assessing their success or hindrance in accommodating multiple roles in the same place is the purpose of this study.

STUDY SAMPLE

This study is a cross-sectional survey design consisting of self-administered questionnaires, face-to-face interviews, a modified time diary, and photographs, sketches, and a physical inventory of the home and workspace of 104 professional homeworkers in various occupations. Both self-employed and corporate-employed homeworkers were interviewed. On average, these homeworkers spend 40 hours a week at home working.

HIGHLIGHTS OF FINDINGS

Besides working day hours, a considerable number of homeworkers work night and early morning hours. Almost half of this sample work (especially those individuals who live alone) sometime between 9:00 p.m. and midnight. Almost 15% work sometime between midnight and 6:00 a.m. These late-night work hours are one way to adjust to other family members' schedules. But they also reflect people's personal work styles, accessibility to cheaper computer connect-time and phone rates, and long working days.

Facilities and services instrumental to work tasks, such as the post office and copy center, take on added importance as neighborhood amenities. Ambient neighborhood qualities such as privacy, quietness, view, and places to walk, also gain importance. People now spend more time in their neighborhoods. They need services which are amenable to their work, but they also want their neighborhoods to be pleasant places to view, to walk in, and to impress clients.

Homeworkers are not likely to notice strangers on the street. They are only moderately attentive to what is happening on their block or in their building while they are working. Usually homeworkers are absorbed in their work and keep blinds and curtains closed because of glare problems. These work patterns do not support on-going street surveillance.

For existing workspaces, people typically choose those spaces which were available. These are generally spare bedrooms and basements although homeworkers also convert family rooms, living rooms, and dining rooms into offices.

The major problems with existing workspaces are temperature, electrical outlets and circuits, lighting, insufficient storage and inadequate size.

In an ideal home, the bathroom and front entry would be close to the workspace. Rooms in which noise is frequently produced (e.g. TV room, den) and bedrooms are preferred in distant locations from the workspace. Bedrooms are desired to be distant so that printer noise does not disturb sleeping household members. But also, they reflect a "private" area of the home which should be separate from the more "public" workspace.

A desire for view from the workspace is often expressed. Typically homeworkers want an expansive, landscaped view of the outdoors so they do not feel confined and are able to momentarily mentally "disconnect" from their work. A few people want a view from the workspace into relatively vacant rooms or corridors, again to allow feelings of distancing and extension.

Homeworkers want a separate room in the home for their workspace but they do not want a separate detached structure.

Most homeworkers in this sample have work rooms used exclusively for their work. In those workspaces which are in a room with other functions, there have been few physical boundaries erected. Typically, in these shared rooms, the arrangement of the furniture is all that differentiates the workspace from other activity functions of the room.

Many types of business equipment are located in home workspaces. There are a high percentage of homes with computers, printers and answering machines. Almost half of the homeworkers in this sample also had a modem and a business phone line. One-quarter had their own copy machines.

Over half of this sample at some time have clients, business partners, or employees in their homes. This work characteristic has noticeable impact on how people feel about their homes and what they prefer in an ideal home workspace.

Homeworkers use multiple spaces in the home for their work. In this study 72% do. Besides the primary workspaces, they use dining rooms, living rooms and kitchens. Use of other areas for work does not necessarily reflect the inadequacy of their current workspaces, but preferences to get out of the workspaces on occasion. In some cases people would like to work outside. If they could move their computers outdoors in good weather, they probably would.

The meaning of home has changed for many of these homeworkers. For some, home has lost its refuge nature and acquired more of a confining or isolating one. They adjust to this by getting out of their homes regularly. For others, the workspace becomes a refuge within the home. The home might assume a professional identification, which is both liked and disliked. For others, the home identifies them with a strong and undesirable domestic image. In addition, people become much more aware of the space and order of their homes, and often respond to this by remodeling and more frequent housecleaning.

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Designing the instruments, interviewing, coding data, and analyzing the qualitative data on the meaning of home was really a team effort: myself, Carole Despres, and Cynthia Doll. My reference to 'we' in this report represents the efforts of the three of us. Carole's and Cynthia's contributions enriched the scope of the project immeasurably. I hope we three someday will collaborate again.

Joe Rand and Bruce Tossenberger undertook the cumbersome task of verifying the coded data. And both Joe and Kim Devlin assisted me in the statistical analyses. Paul Olsen used his photographic expertise to help convert our assortment of color slides into a fine report cover. Battling LOTUS graphics was left to the capable efforts of Roger Reinoos. And in the clutch, Marion Clendenen helped me with the final graphics and layout of the report.

Some of the most cryptic scribbles had to be translated into legible form, and in short time. Bonnie Harris, Sue Otto, Audrey Maynard and Janet Tibbetts word-processed countless drafts of questionnaires, sample letters, mailing lists, data, and drafts of this report. I appreciate their extraordinary efforts greatly.

Having the opportunity to visit the homes and talk with these homeworkers made this a terribly fun project. Their stories about their work, their enthusiasm and interest in the research, and their kindness in allowing us some of their invaluable time enriched not only this study's purpose and findings but also our own professional and personal development.

And finally this report would never have been completed without my dining room table!



INTRODUCTION



PURPOSE AND OUTLINE OF DOCUMENT

PURPOSE

This report describes and evaluates 50 facilities and settings for play, child care, and early childhood development. The evaluation is part of a long-range project for the U.S. Army Corps of Engineers to specify new guidelines for the design of child care facilities and play areas at military establishments around the country.

Problem

This research-travel report was done in response to two problems affecting the hundreds of thousands of children at military bases. First, the U.S. Army maintains the largest number of employer-sponsored child care centers in the country (close to 200.) Nevertheless, as a microcosm of the rest of the country, demand for developmentally-oriented quality care, both full-day and drop-in, including infant care, far exceeds current supply. Second, outdoor playgrounds and natural play areas for the children of young enlisted and officer families are seriously lacking in most family housing areas.

These problems must be seen against the dual backdrop that the early preschool years are the time of most rapid development, and that early childhood development happens everywhere--certainly not just in school--but also in early childhood centers and through spontaneous outdoor play.

To help rectify these problems, the Corps of Engineers plans to build a number of new child care facilities, to renovate others, and to introduce new play areas for children in family housing, recreation, and town center locations.

Objectives

The objectives of the research were:

- to sensitize the client organization to the role of the physical environment in child play, care, and early development

- to comparatively document and assess a sample of both military and civilian care facilities and play areas
- to identify key design features and physical patterns which facilitate child development

RESEARCH PROCEDURE

Research site visits were made at 35 civilian and 7 military locations. A total of 50 were studied. The settings were selected to sample regional and climatic variations, new and renovated facilities, specially designed and self-help projects, different facility sizes and budgets, and some award-winning facilities.

Specific methods included:

- architectural inventories of the surrounding context, immediate site, and building or play area, building subsystems, and furnishings
- behavioral observations of the spatial behavior of children and staff in the facility and its major behavior settings
- focused interviews with the facility director, typical staff, and in some cases children, parents, the base master planner or the chief designer of the facility
- interviews with selected national experts

All interviews were tape recorded and notes were taken. Observations were recorded through behavioral mapping, sketches, and photographs. (For details of the research methods, see the Appendix--Research Forms.) A total of 55 person-days were spent on observations and interviews. The data was then analyzed and distilled into mini-reports.

ORGANIZATION OF THE DOCUMENT

The case studies are in two parts: children's play areas, and child care facilities. Each major case study includes:

- basic architectural and user data
- program philosophy

- facility description, conceptual organization, and building subsystems
- results of user observations and interviews
- assessment, including, as appropriate, special strengths and weaknesses of the facility in the light of child development goals, and lessons for other facilities of the same type

The shorter case studies include only basic data, facility description, and brief assessment.

Important issues and conclusions arising from the case studies are summarized at the end of the two major parts of this document.

DISSEMINATION

The findings of this research will be disseminated to Corps of Engineers' personnel, military master planners, facility engineers, family housing officers, and child care directors and staff across the country.

METHODS USED FOR SITE VISITS

As in most applied-research procedures, there are at least seven phases:

- decisions on questions to be addressed
- selection of appropriate sites
- selection of research methods
- decisions on samples of people
- pretesting research instruments
- on-site procedure
- data analysis

QUESTIONS

The basic questions addressed were:

- What are the program goals and overall operating philosophy of child care directors and playground master planners?
- What population of children are being provided for, in terms of age, socio-economic backgrounds, and significant handicaps, and what future demand is expected?
- What are staff attitudes and preferences about different site locations, building configurations, systems, and furnishings?
- How do children use current space, what spatial characteristics seem most to facilitate development, and what are children's attitudes, preferences, and experiences with different design features?
- How do children feel about different types of child care facilities and play areas, including new design ideas they have never directly experienced?

- Where do children on bases spend their free time, what is there for them to do, and what needs do they have which presently are not being met?
- What parental attitudes might influence the location and design of child-care facilities and play areas?
- What are the official base and staff policies regarding child-care and play, their programs, location and style of setting?

SITE SELECTION

The selection of sites was guided by particular objectives, all intended to insure breadth of the study:

- balance between play and child-care
- geographic diversity
- climatic diversity
- low and high budget facilities
- large and small facilities
- specially designed and self-help projects
- new construction and renovation
- places known for their programs and staff and places known for their facility
- a number of military sites of all three branches
- a sample of some of the reputedly best civilian facilities--including several national award winners--the objective here being to insure that the design and construction of new military facilities and settings will be influenced by the best of current children's architecture

Particular sites meeting these criteria were chosen from our general knowledge, intensive review of the world architectural press back to 1965, and by recommendation from other national experts.

In all, 5 Army bases and 1 each of Navy and Air Force bases, each with child-care and play settings to assess, were specified by the Special Projects Branch in consultation with the Office of the Adjutant General Community Services Branch and the Master Planning Branch. An additional 10 primary play areas and 7 primary child-care facilities were selected by the Project Team. Additional settings were added on the primary route, and a few other interviews were conducted with national experts. In all, 7 military and 20 civilian play areas, and 8 military and 15 civilian child-care facilities were visited and 6 additional interviews were conducted.

RESEARCH METHODS

To answer the questions of interest, certain existing environment-behavior research methods were adopted. In particular, the research team developed three main methods (see the Appendix for the complete instruments):

- Facility inventory, including space for plans and sketches and a check list for noting and photographing significant architectural features.
- Behavioral observation of children and staff in child-care facilities, designated playgrounds, and undesignated play spaces, including copies of maps and plans for sketches, and photographs to be taken.
- Focused interviews with children, parents, program director or play leader, other typical staff, base master planner, family housing officer, and architect where appropriate, including questions about program philosophy, age groups served, program activities, satisfaction and preferences, recommendations for new design criteria, best current children's places, etc., and including a simulation game where children looked at photographs of different types of children's settings, described what they might do there, put them in preferred order, and then gave reasons for their preferences.

SUMMARY OF RESEARCH METHODS (TYPICAL PATTERN)

Method	Sample: Military	Civilian	Time	Recording	Analysis
1. Facility Inventory	7 play 8 child care	19 play 13 child care	1-2 hrs.	plans sketches notes	
2. Observation of Spatial Behavior	children and staff facility and base	children and staff facility only	1-3 hrs.	sketches notes photos	content analysis
3. Focused Interview	3.1 children 3.2 parents 3.3 child care director other staff 3.4 master planner family housing officer	3.1 children 3.3 child care director play leader other staff 3.4 architect	1-3 hrs.	tapes notes brochures hand-outs	content analysis

SAMPLE

Each significantly different behavior setting was observed for 30 minutes, including at least one infant, preschool, and after-school setting. In some of the larger facilities, however, time did not allow for this degree of thoroughness.

Interviews were conducted, where possible, with the program director, a typical staff member, two groups of 4-5 children of different ages and socio-economic backgrounds, two groups of parents, one of preschool children and one of school-age pre-adolescents, and a minimum of one planning administrator (base master planner, facilities engineer, family housing manager, and/or architect). Unfortunately at some bases we were not able to interview parents, and at one base even the children were missing.

Over 80 hours of interviews were conducted with staff, children, parents, and planners. Systematic, detailed behavioral observations were made and recorded at all 17 primary play areas and 15 primary child-care facilities. Over 1200 color slides and about 1000 black-and-white photos were taken. Finally, site and building plans were drawn for settings not having published plans.

PRETESTING RESEARCH INSTRUMENTS

Prior to the site visits, all research forms were pretested thanks to the cooperation of the University of Wisconsin-Milwaukee Day Care Center. The forms were reviewed in Washington, and necessary changes were made. In addition, a briefing book was compiled for each team culled from published accounts of the sites to be visited together with forms for recording address, names of contact people, basic architectural data, and complete references to any published account of the facility in the past 10 years.

Itineraries were drawn up, appointments made, and letters of reminder were sent to the program director at the primary research sites (see Appendix).

PROCEDURE

The overall procedure at a site was for the research team to meet with the program director to explain the nature of the project and obtain her or his signed approval to work with the children, take photographs, etc., and then to begin the research.

The two teams (West and East Coast) were comprised of one architectural researcher and one designer; both teams were also joined by OCE representatives.

One member of the team (the designer) conducted the architectural inventory following prepared forms, while the other member (the researcher), usually accompanied by the OCE representative, interviewed the director and took a brief tour of the facility. All interviews were tape recorded and notes were taken. The team then observed different spaces following the behavioral observation forms, and, after noting repeating and interesting patterns of environment-behavior interactions, recorded examples on both color and black-and-white film and in sketches and notes. As the day continued, a typical pattern was for the designer to do additional behavioral observations and recording, and some interviews with the children, while the researcher was conducting additional interviews with staff, parents if available, and children. At the end of the day, the team would reassemble and take a tour of the base or neighborhood area in search of "kid tracks", "remnants of use", and other indications of where children play and otherwise spend their time, and where they might if correct planning, siting, and design decisions were made.

DATA ANALYSIS

Due to the non-quantifiable nature of the data, it was content analyzed informally, and results from particular sites were compared to identify more general patterns, issues for decision, and recommendations.

AN "INVISIBLE" WORKFORCE: LABELING AND PREDICTING TRENDS OF PROFESSIONAL HOMEWORK

In the popular press and in academic journals, the terms "telecommuter," "homebased business," "remote work," "homeworker" and other labels flourish. Sometimes these terms refer to the same type of work or worker, other times not. A newspaper journalist may write a column on "telecommuters," a name originally coined by Jack Nilles of University of Southern California's Center for Futures Research, in reference to people who do their work on computers at home, while a magazine writer might use the term to refer to people who work on computers at home and disseminate and receive their work through a modem. A survey might sample company employees who work at home, whether or not on a computer, and refer to them as "telecommuters." The lack of an accepted name and definition for people "who work out of their homes for paid labor" typifies the occupational variability, invisibility, and lack of identification and coherence of this "workforce."

Yet a clear label and definition has not deterred the creation of a number of networks and organizations, such as the Association of Electronic Cottagers, National Alliance of Homebased Businesswomen, National Association for the Cottage Industry, and the Work-at-Home Special Interest Group of CompuServe Information Services. Newsletters abound, such as Computer Entrepreneur, Telecommuting Review, Cottage Connection, and National Home Business Report. Marketing firms such as Dun's Marketing Services sell mailing lists of homeworkers; Dun's call theirs the "Cottage Industry File." Zoning ordinances and other federal policies define and create regulations addressing this workforce.

To derive clearer terms I propose using 4 characteristics to define and differentiate the myriad individuals who work out of their homes. They include those people (1) involved in a non-farm business as the additional, secondary use of their dwelling unit to produce or provide goods or services for economic gain; (2) where the home is a regular setting for work, whether it be the primary or secondary one (this may be judged so by the number of work hours invested, or one's subjective orientation); (3) whether the person is employed by another person or company, or is self-employed; and (4) where the work may or may not involve telecommunications (exclusive of telephone) equipment for producing, receiving, disseminating or controlling goods and/or services.

In this report, I use the term **professional homemaker** to refer to people who (1) work out of their homes for paid labor, (2) either on a part-time or full-time basis but where the home is the primary workplace, (3) who are either self-employed or company-employed, and (4) who may or may not use telecommunications equipment. The term 'professional' primarily designates people who are being paid for their labor, and does not refer to an occupational subcategory. A shorter term, **homemaker**, has been used by others to refer to people who work out of their home not for wage or pay, and who are primarily involved in childcare and homecare. I use this shorter term in this report but analogous to professional homemakers. **Homebased teleworkers** are professional homemakers who use telecommunications equipment in their home for producing, receiving, disseminating or classifying goods and/or services. I reserve the term **telecommuter** to refer to homebased teleworkers who receive and disseminate their goods/services by telecommunication equipment.

DEMOGRAPHICS

Estimates of the number of professional homemakers in this country vary due to the multiple definitions and labels, and the means of sampling, counting and estimating. One of the most-widely cited statistics is from a study conducted by the Chamber of Commerce in 1983. Of the fifteen million businesses in the United States who filed IRS reports under Schedule C (Sole Proprietorship Returns), ten million listed their home address as their place of business (Butler & Getzels, 1985). This may be an undercalculation since people operating without retail sales tax permits or business permits, those hoping to avoid taxes, and those fearing legal and zoning entanglements may be reluctant to notify the IRS of their operation. The U.S. Small Business Administration estimates 5 million people run homebased businesses. An analysis from the 1980 U.S. Census, based on a question of travel to work, estimates 2 million Americans with homebased businesses (Horvath, 1986). A survey by AT&T projects 10 million households are involved in homebased businesses, with fewer than one-third employing someone outside the family in the business (AT&T consumer products conducts market survey, 1984). A recent survey by the Bureau of Labor Statistics projected 8.4 million (non-farm) persons worked at home at least 8 hours a week (Horvath, 1986).

A more recent national survey by Electronic Survey Unlimited (ESU) estimates that approximately 13.3 million people work at home (i.e. are professional homemakers) at least part time (Schwartz, 1987). These professional homemakers were twice as likely than office workers to own a computer. Over 600,000 households use a modem and 240,000 households rely substantially on computer communication for income-producing work.

A subpopulation of the professional homework force are the corporate-employed teleworkers. ESU estimates that there are 450 informal and formal telecommuting and remote work site programs involving 100,000 individuals (see Table 1 for a partial list of companies with such programs). Gil Gordon (1984), a telecommuting consultant and publisher of Telecommuting Review, estimates that there are 3000 corporate-employed teleworkers, and Jack Nilles (1976) estimates 30,000. Based on an analysis of the 1980 census, Kraut and Grambsch (1985) estimate 10,000 homebased teleworkers.

Table 1
Some Companies with Work-At-Home Programs
(Adapted from Atkinson, 1985)

American Express Co., Inc.
Bank of America
Blue Cross-Blue Shield of South Carolina
Chase Manhattan Bank
Citibank
Control Data Corporation
Data General Corporation
Digital Equipment Corporation
Equitable Life Insurance
F International (Britain)
Federal Reserve Bank
First National Bank of Chicago
Freight Data Systems Honeywell, Inc.
Hartford Insurance Group
International Business Machines
Island Graphics
Lanier Business Products
Arthur D. Little, Inc.
Manufacturers Hanover Bank & Trust Co.
McDonald's Corporation
Metropolitan Life Insurance Company
Mountain Bell
New York Telephone Pacific Bell
J.C. Penney Company
Rising Star Industries
Standard Oil Company of Indiana
Travelers Corporation
Union Mutual Life Insurance Company
United Air Lines
Walgreen Company
Weyerhaeuser Company
Xerox Corporation

The number of homebased teleworkers who are entrepreneurs shows strong signs of growth. One indicator is the number of personal computers purchased for use in the home. Future Computing, a Dallas-based research firm, found in a 1985 survey that 60% of consumers buying home computers cited professional work as the primary reason for purchase; this is up from 20% in a 1982 survey. Although the purchase of home computers is declining (from 5 million in 1982 to 3.2 million in 1985), this still represents an increasing and significant number of people buying home computers for work purposes (Mitchell, 1985).

FORECASTS AND TRENDS

Not having an accurate estimate of the current size of the professional homework force has not deterred predictions of future size. The World Futures Society (Howland, 1982) predicts that one-quarter of the white collar workforce, or 34% of the industrialized workforce, will be working out their homes by the year 2000. Jack Nilles estimates that by the year 2000 twenty million individuals will be working out of their homes at least 2 or 3 days a week (Nilles et al., 1976).

Forecasts are based on projected trends in the structure of work, in the changing dimensions and values of family and personal life, and advances in technology. These include:

The Structure of Work

Increase of jobs in information services which do not need direct face-to-face contact. Currently the information sector comprises 56% of this country's GNP (Rushton, 1985; Schwartz, 1987). These people use information technology to create and exchange informational products. A taxonomy of information occupations is listed in Table 2.

The conversion from a manufacturing-based economy to a service-based one. A service/information economy is not conducive to massive bureaucratic organization (Naisbitt, 1982). Today service employment is almost two-thirds of the work sector (Dowall and Salkin, 1986). White-collar work involved 52% of the workforce in 1980, up from 37% in 1950.

Increase in part-time work. Eighteen million people are part-time workers, the majority of these being women. From 1970 to 1982 the part-time labor force increased by 58% while the overall U.S. labor force increased by 26%. Twenty-five percent of clericals work part-time (Gregory, 1985).

Table 2
Information Occupations
(Adapted from Rushton, 1985)

	<u>Examples</u>
<u>Information Producers</u>	
Scientific & Technical	Chemists, Engineers
Market Search & Coordination	Sales Personnel, Buyers
Information Gatherers	Surveyors, Quality Inspectors
Consultative Services	Accountants, Lawyers
Health-Related	
Consultative Services	Doctors, Veterinarians
<u>Information Distributors</u>	
Educators	Teachers, Lecturers
Public Information	
Disseminators	Librarians, Archivists
Communication Workers	Newspaper Editors, T.V. Directors
<u>Information Processors</u>	
Administrative & Management	Production Managers
Process Control & Supervisory	Factory & Office Supervisors
Clerical & Related	Clerks, Bank Tellers
<u>Information Infrastructure</u>	
Information Machine Workers	Computer Operators
Postal & Telecommunications	Mail Carriers, Phone Operators

Corporations contracting work out, reducing permanent staff. Many companies expect future increases in small operating units, either independent firms or subsidiaries of larger organizations (Dowall and Salkin, 1986). In addition the development of a more entrepreneurial style of U.S. management will lead to a decline in middle management staff, some estimate as high as 30% (Thinning the managerial ranks, 1983).

Increase in entrepreneurial businesses. More and more people are expected to start their own businesses. The U.S. Small Business Administration estimates approximately 12.1 million people will be self-employed in 15 years, up from 7.5 million in 1985 (Johnson, 1987). Entrepreneurial job growth is expected high in the servicing industries, particularly computer programming, public

relations, software development, and janitorial services. Another indicator of this growth is the number of entrepreneurial courses offered in four-year colleges; up from 16 in 1970 to over 250 in 1984 (Atkinson, 1985). Student enrollment in entrepreneurial classes and programs is at an all time high (Brown, 1984). The Small Business Administration claims that the homebased business is the fastest growing sector of small businesses (Molidor, 1985). Almost 20% of the small businesses started each year begin in the home, and this percentage is increasing (Butler and Getzels, 1985).

The Values and Structure of Family/Personal Life

A growing segment of the workforce whose primary concern of occupational choice is less on the traditional values of money, success, and status, and more on the type of work and its integration with social and family life. Stanford Research Institute predicts that 27% of the adult population will hold these values by 1988 (Clutterbuck and Hill, 1981). Flextime is a work response initiated in recent years to people's demands for fitting work into their lifestyles. This demand for more self control over work is partially attributed to the higher educational levels of the workforce. Young people are increasingly interested in work involving ownership and personal development (Cross and Raizman, 1986).

Multiple career paths are replacing the traditional "20 year/gold watch" work arrangement for a significant proportion of the population (Cross and Raizman, 1986).

An increasing number of women in the paid labor force. In 1980 women accounted for 42% of the workforce population. Approximately 3 million women are business entrepreneurs. A 1977 Census Bureau survey estimates that 327,000 women own and operate their own businesses from home (Lublin, 1984). Between 1974 and 1984 women have gone into business for themselves at a rate 6 times higher than that of men (Garland, 1985).

Partially the result of this entry of women into the workforce, a demand for out-of-home childcare services, a demand that currently outstrips supply. There is one daycare position open for every 10 children who need placement (Gregory, 1985). The average annual cost of daycare for two children is \$4,000, which is one-third the average working woman's salary (Gregory, 1985).

An unwillingness among workers to relocate their homes for a job. Approximately 42% of executives are reluctant to relocate, and 7% would refuse to do so (Want to move?, 1985).

An increasing number of families who are more involved and comfortable with technology. The Yankee Group, a research firm, refers to these families as "Taffies" (technologically advanced family). Demographers project that within 10 years, one-third of the population will have a lifestyle oriented toward using and owning high technology equipment and who seek more control over their work and lives (Gluckin, 1985).

Technology Trends

The declining cost of micro and personal computers and the proliferation of "user-friendly" software programs.

Commercial development of "smart homes," i.e. where computer technology is used to control the home environment (e.g. thermostat settings, appliances, energy consumption) as well as to have an integrated computer system. Such developments have been built in Eaglecrest, California (Perry, 1985; Wilson, 1985), and in Ridgewood, New Jersey (Cross and Raizman, 1985).

Government and business policies also are making it easier for people to work out of their homes. For example, a new state law in Alaska allows legislators to participate in committee meetings from their homes via telecommunications. Women prisoners in Arizona take reservation bookings for Best Western Hotel from their prison cells (a strange, at best, home environment), using company-supplied computer terminals (Cross and Raizman, 1985). Numerous municipalities are rewriting ordinances to address concerns of home occupations (Butler and Getzel, 1985).

A few companies are beginning to capitalize on remote work site trends. United Technological Building Systems Worldwide Business Centers, Headquarters Company (HQ), and Omni offices, located in cities nationwide, lease office space, services or equipment on either a daily, weekly or yearly basis. A director of HQ Chicago whom I talked with said that a sizeable number of her clients were professional homeworkers who rent conference rooms for a day for infrequent use, or have their mail delivered to the downtown location instead of to their homes.

ARE WE RETREATING TO THE PAST?

The attention the popular media has focused on professional homework often gives an impression that this is a new emerging phenomena. Actually, only in the last two centuries have people gone out of their homes for work in Western cultures. Professional homework is prevalent today for industrial/production work in third world countries, especially for women.

The cottage industry name was derived from 18th century England where an extended family would operate a business or factory in their country home. Merchant-manufacturers supplied materials and hired these families to produce goods which they would later pick up when completed.

This was similar in the United States, but its prevalence was on the decline by 1850 (Atkinson, 1985). By then the industrial revolution had started in this country, and more and more people were moving to cities. The "country cottage industry" was replaced by "sweatshops" in city tenements.

Attempts to shut down these city tenements occurred during the early 1900s. Critics of these sweatshops expressed concern about maintaining legislation such as child labor laws, health and safety standards, and minimum wage laws. By 1940, 19 states, the District of Columbia and Puerto Rico prohibited industrial homework. In 1943 the Fair Labor Standards Act was passed by Congress prohibiting home manufacturing in seven industries: jewelry, gloves and mittens, knitted outerwear, buttons and buckles, women's apparel, handkerchiefs, and embroideries. Exceptions were made for the aged, those in poor health, and those having to care for invalid household members.

Local zoning ordinances often extend the number and types of prohibited occupations. Between 80 to 90% of local planning agencies have ordinances regulating home occupations (Butler and Getzels, 1985; Ritzdorf, 1986) and most are moderately to exceptionally restrictive. For example, the Chicago zoning department has used zoning restrictions to prohibit working at home on a computer (Tazelaar, 1986). Officials in Smithtown, Long Island drafted a proposal to ban all home occupations (Brooks, 1983).

Yet the passage of these laws and ordinances do not eliminate professional homework. It is not uncommon to see a service-oriented occupation based in the home. In the T.V. series The Bill Cosby Show, for example, the father Dr. Cliff Huxtable maintains his medical practice in an office located in the basement of his home. Many of today's large service and industrial corporations started as homebased businesses. Table 3, adapted from Atkinson (1985), lists a number of well-established firms such as Hewlett-Packard, Apple Computer, and Baskin-Robbins Ice Cream which started at home!

Thus, homework itself is neither a recent phenomena nor need it be a retreat to the working conditions of earlier times. Critics of professional homework express concerns that the labor and health violations of the past are not repeated, that women's economic and employment gains do not regress, and that the mixture of domestic and work lives in one place does not deteriorate the quality of life in the home. The recent interest comes from the possibility of telecommunications to allow greater numbers of people from a wider number of occupations and employment statuses to work out of their homes. These projections of homework opportunities, coupled with the

concerns of repeating labor abuses of the past, mandate critical investigations of people's lives as they live and work under the same roof.

Table 3
Some Companies Which Started as Homebased Businesses
(Adapted from Atkinson, 1985)

Hershey Food Corporation: began by Milton Hershey in 1876, selling candy from his Pennsylvania home.

Baskin Robbins Ice Cream Company: began by Irvine Robbins, selling ice cream from the family farm in Washington.

Everest & Jennings International: began by Herbert Everest and Harry Jennings in 1933 with custom wheelchair construction from the Jennings' garage.

Medtronic Inc.: began by Earl Bakken and Palmer Hermundslie in 1949 out of their Minneapolis garage.

Apple Computer: began by Steven Jobs and Stephen Wozniak in the bedroom of Jobs' home in 1976.

Hewlett-Packard Corporation: began by William Hewlett and David Packard in 1938 out of the Packard's garage.

Playboy Magazine: began by Hugh Hefner at his kitchen table in 1955.

METHODOLOGY

RESEARCH INTENT

This research study describes the social, behavioral, temporal and spatial qualities of a sample of professional homeworkers.

Many accounts of homeworkers are anecdotal descriptions of a few individuals portrayed in the popular media. But this imagery is founded upon much speculation and little empirical data (for some examples of popular press articles, see Brooks, 1984; Eder, 1983; Morf, 1983; Renfro, 1982; Schiff, 1983; Toffler, 1980). A few recent empirical studies address professional homework issues. These include studies by Olson (1983a, 1983b), Pratt (1984), Christensen (1985), Hirshey (1985), McLaughlin (1981), McClintock (1984), Ramsower (1985), Horwitz (1986), Becker (1981) and Antonoff (1985). Findings from these studies are discussed in the following chapters of this report.

The earlier research studies of homeworkers primarily focused on identifying the job and worker characteristics best suited for working at home. Recent work, including this one, is beginning to provide detailed information about the working and living patterns of homeworkers, and the adjustments and consequences of working at home.

When multiple divergent activities (i.e. housework, childcare, leisure, professional work) occur in the same space, changes in the structure of homes and neighborhoods, living and work patterns, may occur to accommodate such activities. Identifying these patterns, and assessing their success or hinderance in accommodating multiple roles in the same place, is the research intent of this study.

This report highlights those issues involving (1) the temporal allocation of activities in the home; (2) the importance of, and involvement in, community services and amenities for homeworkers; (3) preferences of physical home and workspace qualities; (4) the existing physical home and workspace conditions; (5) the success or hinderance of spatial, temporal, structural, and behavioral adjustments to fit professional work into domestic and leisure routines of the home; and (6) the changed meanings and feelings of home. These issues are each covered in chapters 5 through 10.

RESEARCH DESIGN

This study is a cross-sectional survey design, consisting of self-administered questionnaires, face-to-face interviews, a modified time diary, and photographs, sketches and a physical inventory of the home and workspace. One of three women interviewers met with a professional homeworker in his/her home, sometime between August and December 1986. The average length of interview time was 1 hour, 15 minutes, but ranged from 20 minutes (for interview only) to 3-1/2 hours. We paid each respondent \$10 for his/her participation.

We conducted the interviews in a personal, conversational manner, probing frequently. This interview style elicited much information from the homeworkers. Even in response to fixed scale questions, they would mention episodes or explanations relevant to their answers. All of this discussion was recorded and used to interpret data analyses.

We interviewed a total of 104 homeworkers. In a few instances we could not complete the entire interview in the time allotted by respondents. In most cases this involved not completing the time diary (see description below).

SELECTION CRITERIA

Selection criteria for being interviewed included:

- (1) regular work setting at home. Respondents could have other work settings, but a regular one (based on their own account) was at home. Since this was the central focus of the study, this selection requirement was essential.
- (2) work a minimum average of 20 hours per week at home. Again this was a selection requirement to ensure that the sample would involve only people who actively use their home as a work setting.
- (3) residence in metropolitan areas of Milwaukee, Minneapolis/St. Paul, Chicago, Los Angeles, or Sacramento. These areas were selected because of the proximity to the researchers, and because of a large number of homeworkers residing in these areas. A variety of areas was selected to allow for a variety of housing and community conditions. From these areas, 45 of the homeworkers lived in the Milwaukee area, 14 in Minneapolis/St. Paul, 27 in Chicago, 8 in southern California, and 10 in Sacramento. The small number in California does not reflect the small number of actual homeworkers residing in that state, but rather difficulties in contacting and scheduling interviews with homeworkers during the short stay of the researcher in California.

(4) use of a computer at home. Since one intention of this study was to make design recommendations for telecommunications equipment, this was an important requirement. There were 10 people who did not have a computer system in their homes. We interviewed these people and included their responses here because the nature of their work was very similar to the rest of the sample.

SAMPLING

Although probability sampling provides the opportunity for confidence in generalizability and use of inferential statistics, such sampling techniques could not be used in this study. A comprehensive sampling frame for professional homeworkers does not exist. Statements on the IRS Schedule C forms allow the taxpayer to indicate whether or not s/he is declaring part of the home as business. However, such statements would only include those persons making such a deduction from their home (e.g. some people work at home but not in a distinct work area and so cannot make such claims), and who are self-employed. Further, the names and addresses of these claims are confidential.

We conducted nonprobability sampling from a number of lists and personal references. Locating members of this "invisible" workforce began as a challenge. As time went on, and we understood the characteristics of this population better, it was rather easy to locate such people.

We gathered names of people from a number of different sources. The director of the National Alliance of Homebased Businesswomen provided us with a mailing list of members. We purchased a marketing list called the Cottage Industry File from Dun's Marketing Services. This list was derived from credit and insurance applications of businesses, as recorded by Dun & Bradstreet, who had listed their home addresses as their business addresses. This includes over 700,000 businesses. A subsequent telephone survey by Dun's Marketing tagged those individuals who indicated an interest in or ownership of a personal computer. This final list includes 8713 businesses.

Since the selection criteria required that the person use a computer in his/her work, work an minimum average of 20 hours a week at home, and reside within certain metropolitan areas, we did not randomly select from these lists, but rather contacted each individual by mail in the designated metropolitan areas (see Appendix A for sample letters). Our response from these requests was quite low: 5%. We called a portion of the nonrespondents in the Minneapolis and Milwaukee areas for whom we could locate a phone number. Although some of these nonrespondents did not want to participate, others mentioned that they did not meet the requirements: they did not own a computer (a sizeable number from the Dun's list did not own a computer, even though these persons were tagged on the listing as such owners) or did not work the minimum average number of hours per week at home.

We then contacted professional organizations whose members we felt might, by the nature of the organization, comprise a substantial number of people who work at home. Most directors gave us mailing lists with members' phone numbers. Since the numbers of members on these lists were large, and only a small percentage were assumed to be homeworkers, we contacted a sample of these people by phone. The response rate for those meeting sample requirements was quite high when solicited by phone. Sometimes the organizational contact would announce the study at a meeting, and allow people to pick up a letter describing the study and how to contact us.

We also contacted organizations known to have formal telecommuting programs. All but one gave us the names of their homeworkers or sent them a letter of introduction to the study and how to conduct us if they wished to participate. Electronic Survey Unlimited kindly referred us to a number of these programs within our interviewing areas.

A final source was personal references. Friends and colleagues often told us of acquaintances who worked at home. Also, respondents would know of other people who worked at home and gave us references.

The sources, and number of respondents, are included below:

*Table 4
Respondent Sources*

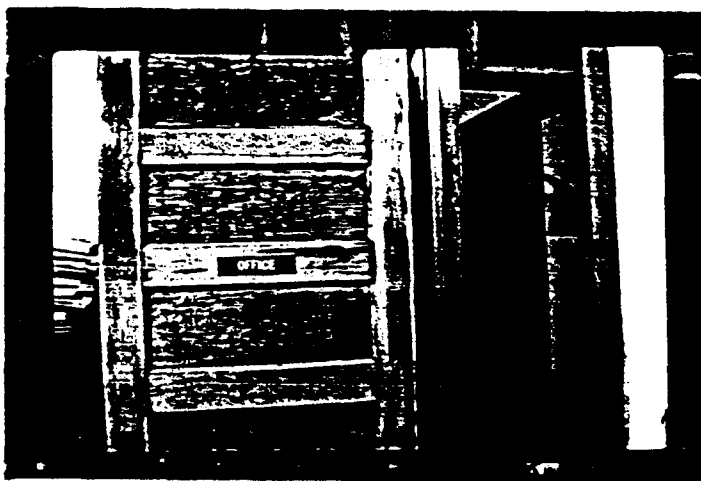
<i>Dun's Marketing Services Cottage Industry File:</i>	<i>11</i>
<i>National Alliance of Homebased Businesswomen:</i>	<i>7</i>
<i>Firms with Telecommuting Programs:</i>	<i>17</i>
<i>Personal Referrals:</i>	<i>34</i>
<i>PC User Groups:</i>	<i>3</i>
<i>Word Processing and Transcription Network Organizations:</i>	<i>6</i>
<i>Independent Writers' Association:</i>	<i>19</i>
<i>Independent Computer Consultant Organization:</i>	<i>2</i>
<i>CompuServe Work-at-Home Interest Group:</i>	<i>2</i>

No claim is made here on the representativeness of this sample or sampling technique. The following chapter on Sample Characteristics describe the variety of individuals--variety being one characteristic we sought. Some sources became available to us at the conclusion of the study and had we had more time we could have solicited more people for participation.

INSTRUMENTS AND VARIABLES OF THE STUDY

We used 3 instruments to collect information (see Appendix B). An interview form included both fixed and open-ended questions. After the interview, the respondent completed a self-administered questionnaire. While s/he did this, the interviewer completed a physical inventory of the workspace(s), a detailed, scaled drawing of the area, including furniture, and a diagram of the layout of the home.

Figure 1
Door to Homeworker's Office



Operationalizing terms is a difficult task, but even more so for the definition of a workspace. Certainly someone who has a separate, defined room, with a sign on the door that says "Office" (see Figure 1), has a clearly defined workarea. Other areas are not so well defined physically. In addition many people use multiple areas in their home for working. Since it was impossible to inventory the entire home, we focused on those areas which homeworkers felt were their primary workspaces (we did ask questions about other areas in the home they worked in but did not complete a physical inventory on these areas unless specified as a primary workspace). Although all had at least one primary workspace, seven had two, and one person claimed three. A workspace could involve exclusive use of an entire room, or it could be one area among others within a room. Our definitions for what constituted a primary workspace, and what constituted the work room, are as follows:

Workspace: The area bounding the equipment, furnishings, material and circulation space used primarily for work purposes.

Work Room: The room encompassing the workspace which is bounded by walls (with or without doors and thresholds) and/or full-height vertical or horizontal structural divisions. Definitions for these latter conditions are:

Full-Height Vertical Structural Division: This includes arches running the length, or at least 50%, of a wall opening (as distinct from a threshold or open doorway at a width equivalent to a double door or less), or any wall with an opening in it (without doors) larger than a double doorway.

Horizontal Structural Division: This includes a floor extension at a 90° angle from the major axis, with no walls or full-height vertical structural divisions. It also includes an alcove within a larger space, as defined by a narrower width and depth than the larger "room" to which it is attached, but deeper than a conventional closet size or bay window.

Thus, a workspace could be the same as a work room if this was a room bounded by walls and/or structural divisions, AND was used exclusively for work-related purposes. When the room in which the workspace was located was not used exclusively for work-related purposes, then there would be different characteristics between the room and the workspace. We use the terms **exclusive** to refer to those work rooms exclusively devoted to the respondent's professional work, and **shared** refers to those rooms where other regularly-occurring functions besides professional work occur.

Some layouts representing these alternatives are seen in Figure 2.

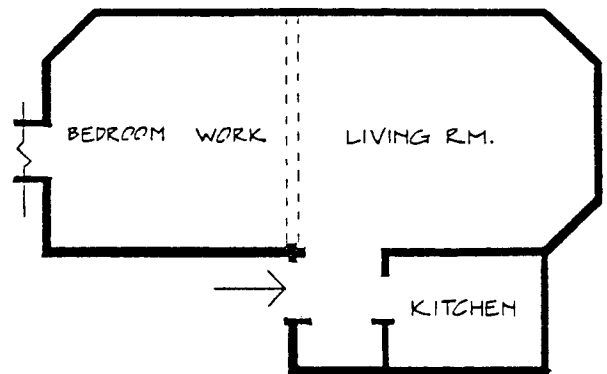
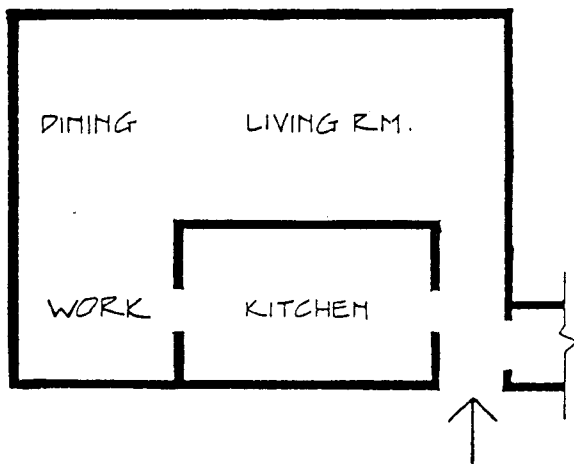
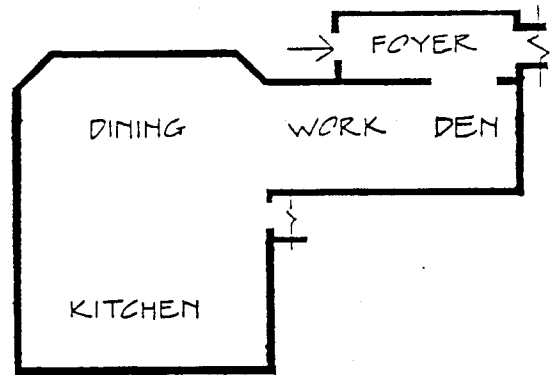
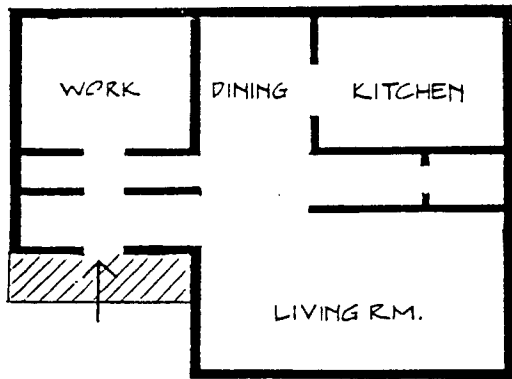
Other terms used in the report frequently include: **work**, referring to one's professional, paid work; **domestic**, referring to house care, child care, meal preparation, and other house and household maintenance activities; and **leisure** referring to non-maintenance activities, such as exercise, socializing, watching TV.

The following lists the other variables examined in this study, and the location of the specific question, scale, or code reflecting that variable on the instruments. These instruments are referred below as **I** (interview), **Q** (self-administered questionnaire) and **H** (home inventory). Reference numbers the numbered item on these instruments, which are located in Appendix B.

Physical Characteristics of Workspace and Work Room

An approximate-to-scale drawing was made of the workspace and work room, which included furniture, equipment, fixtures and materials. From these drawings the following information was calculated:

Figure 2
Some Layouts of Workspaces in the Home



Square footage (H)
 Wall perimeter footage (H)
 Square footage occupied by furniture (H)
 Square footage occupied by horizontal work surface space (H)
 Number of electrical outlets (H), phone outlets (H)
 Number of TV sets (H), musical equipment, e.g. radios or stereos (H)
 Number of phones (H)
 Number of portable desk lamps, floor lamps, fixed overhead
 lamps, track lighting systems (H)
 Presence of answering machine (H)
 Number of walls with windows in them
 Floor surface material
 (e.g. carpet, wood, concrete slab) (H)
 Presence of visible wiring, cords or cables (H)
 Presence of plants (H)
 Types of visual and art displays (H)
 Types of outdoor views (H)
 Locked access (H)

Boundaries (H): This could include wall (with or without door and threshold), full-height vertical structural division (defined above), horizontal structural division (defined above). For a nonexclusive or shared workspace within a work room, boundaries between the workspace and other areas in the room could be: partial-height vertical structural division (change in floor level less than 2' and without any wall or structural division), vertical artificial division (includes bookshelves, hung fabric or bamboo with open space along both long sides), horizontal artificial division (includes change in floor material), and/or spatially defined by layout configuration of furniture and equipment only.

Presence of computer equipment (Q3 and verified by H)

List of improvements made to workspace since working at home
 (Checklist and Open-ended, Q1); whether wanted to make
 improvements but could not because of landlord (Open-ended, Q2)
 Other areas of the home used for work (Open-Ended, I28)

Relation of Workspace to Other Parts of the Home

Number of phones, on same and different floors (H)
 Adjacency to other rooms in home by: walls, structural divisions,
 within work room, not adjacent (H)
 Location to other rooms in home by: same floor, different half-floor,
 on different full-floor (H)
 Characteristics of path from front door to workspace: rooms and
 doors passed (H)

Housing Structure

Type of structure (single house, duplex, etc.) (H2)
Street entry (shared or separate; number of residences sharing entry; locked entry; location of access) (H4,H5,H6,H8)
Presence of separate workspace entry from outdoors (H9)
Entry characteristics (e.g. publicity of business, doorbell) (H10)
Number of doors to dwelling (Open-ended, I23)
Presence of yard, balcony, porch (H13)
Orientation of facade (H16)

Perceptions of Physical Qualities of Workspace

Reasons for choosing present workspace (Open-ended I26, I27)
Characteristics of ideal workspace (Open-ended and Fixed scales, I32,I34,I35,I36)
Beneficial and problematic features of existing workspace (Open-ended, I29, I30)

Neighborhood Characteristics

Personal attachment to neighborhood (Fixed scales, Q4a through Q4d)
Attentiveness to neighbors, neighborhood activity (Fixed scales, I56,I57,I58,I59,I60,I61)
Importance of neighborhood amenities (I63,I69)

Work Characteristics

Job Characteristics Inventory (JCI): a standardized scale (Sims, Szilagyi & Keller, 1976) to measure individuals' perceptions of task characteristics. These consist of five-point rating scales along dimensions of **autonomy, opportunity to make friends, working with others, task identification, and variety**. This classification of work better reflects the differences in work conditions than the professional/clerical distinction made by Olson (1983a, 1983b) and others. Scale items were modified for this study because of problems discovered at pilot testing. It was also shortened given the length of the present study instruments. (Fixed scales, Q8)
Length of employment, regularity of work schedule, number of hours worked, occupation (Open-ended and Fixed scale: I2,I3,I4,I5,I6, I7,I8,I9,I10,I11,I12,I13,I14)
Business meetings outside home and at home (Open-ended, I17,I18)
Importance of computer in doing work (Fixed scale, I19)
Use of phone in work (Open-ended, I20)
Employees in home (Open-ended, I40)

Personal and Household Characteristics

Family Environment Scale: Subscales of standardized instrument (Moos, 1986) to measure social-environmental characteristics of all types of families. The only subscales used here were those measuring **control** (the extent to which set rules and procedures are used to run family life) and **organization** (the degree of clear organization and structure in planning family activities and responsibilities). These scales were modified, replacing the word "household" with that of "family," using a 3-point instead of 2-point scale, and shortening the number of items because of the length of the present questionnaire (Fixed scale, Q4f through Q4m)
Education, income, financial expectations (Fixed, Q11 to Q18)
Household occupants (Open-ended, I1)
Tenure in home (Open-ended, I21, I22)

Activities in Typical Working Day

This was done with a modified, retrospective time-diary form. We gave each homemaker a chart which was divided into half-hour intervals from midnight to 11:30 p.m. We also gave them a card which listed these activities: (a) working, (b) housework or childcare, (c) leisure or exercise, (d) non-work related travel, (e) sleeping, (f) eating. They filled in, for each time period, the activity they would be engaged in on a typical working day or their last working day. If they would do more than one activity at a time (for example, eating while working) or if they did two of the activities sequentially within a half-hour interval, they indicated this by putting in more than one activity code. If they did activities not listed on the code form, they left the cell blank (often they told us what these were; many times it would be civic or religious activities). They were also to mark for each time period whether or not they were usually at home, and whether or not other people were at home during that time. (I15)

Fit, Conflicts and Adjustments

Rituals and special activities before starting to work (Open-ended, I50)
Enjoy working at home (Fixed Scale, I31)
Effect of working at home on communication, satisfaction, stress, conflicts, quality of relationships (Fixed, Q7)
Methods used to adjust to noise (List and Open-ended, Q9, Q10)
Changes in household responsibilities (Open-ended, Q38, Q39)
Examples of conflicts between work and domestic activities - (Open-ended, Q43); disruptiveness of such conflicts (Fixed scale, Q44, Q45)

Extent adjustments made to working at home (Fixed scale, I48,I49)
Arrangements made to minimize conflicts between work and home (List and Open-ended, I47)
Changed feelings towards home (Open-ended, I37)
Extent work, domestic and leisure activities overlap in space, time, mentally (Fixed, I52 through I54)
Other activities which occur in workspace at same time as working (Fixed, I55)

PILOT TESTING

A form twice in length to the present one was pilot tested with a number of different homeworkers (other than those in the final sample). Extensive modifications were made and the number of questions on the interview and questionnaire was reduced.

Since this research study was exploratory, intent on the discovery of the many facets of professional homework and their interrelationships, we did not conduct retest reliability and construct validity tests. Such checks are appropriate for studies with a few, clearly defined variables. This study, however, covered numerous variables in an attempt to discover those which seem most fruitful for further directed research which could be validated.

We conducted tandem interviews (i.e. 2 interviewers for one respondent) at the initial and middle stages of data collection to provide a measure of reliability between interviewers in asking and prompting questions, and in interpreting answers.

CODING AND DATA ANALYSIS

Two judges developed a coding scheme for the answers to the open-ended questions and to the graphic descriptions of the homes and workspaces. The coding schemes of each were then compared. Categories which were created by both judges were included in the final codebook. When categories were not listed by both judges, discussion between judges ensued until they mutually agreed upon the appropriate classification, which was then included in the final codebook. We intended individual category descriptions to be numerous and narrowly defined rather than broad and encompassing. For example, to the question "What features are beneficial in your current workspace," responses of "view to outdoor landscaping," "view off to a distance," "view to the backyard to watch children," and "any view" are all separate categories and are not subsumed under one classification of "View." Such detailed classifications reduce error in multiple-judge coding, but also increase the complexity of the analyses and interpretation. But for an exploratory study, this detailed approach was deemed most appropriate.

All data was coded, verified, and analyzed using the SPSS-X software program.

Since most scaled items were considered ordinal, the statistical analyses undertaken are nonparametric, except in a few instances where descriptive means are reported (e.g. for information on the number of hours worked per week).

The answers to one question, "How have your feelings about your home changed since you started working at home," were analyzed by qualitative data analysis technique (Miles & Huberman, 1984). Three researchers separately developed classification schemes and sorted responses into categories. Interjudge reliability was not the purpose here. Rather we wanted to discover the number of different ways this information could be classified. Some judges developed 2 to 4 different classification schemes for the same set of responses.

CHARACTERISTICS OF THE SAMPLE

We intended to survey professional homeworkers from a broad range of occupations and from a variety of different household arrangements, while still maintaining the selection criteria of: (1) residence in the Los Angeles, Sacramento, Chicago, Minneapolis/St. Paul, or Milwaukee metropolitan areas; (2) a minimum average of 20 hours work per week at home; (3) home as the regular work setting, and (4) preferably, use of a computer in one's work. All but 10 of the sample had a computer. Their work usually entailed other types of communication machinery (e.g. electronic typewriter), or they had computers for business but they were not located at their homes, or they had ordered computers and were anticipating how to accommodate them (4 homeworkers were of this type). Their occupations and responses were not substantially different from those with computers. For some homeworkers computer usage was not a primary but a secondary aspect of their work. For example, one woman was a quilter, but she also used a computer to publish a newsletter for her business. Another woman ran an office supply service from her home, but all billing was done on the computer.

A number of domestic and work characteristics undoubtedly influence preferences, activities, timing, conflicts, and adjustments associated with working at home. While numerous factors could be examined, this report focuses only on a few, those suggested by theory or previous studies. The following analyses take these factors into account. These include those listed on Table 5 which are discussed in detail below.

HOUSEHOLD OCCUPANCY

Of the 104 homeworkers in this sample, 52.9% (55) had children under 18 years of age living in their home; 18.3% (19) had children under the age of 5 years; 28.8% (30) had children between 5-12 years; and 22.1% (23) had children between the ages of 13 to 17. 27.9% (29) had adults other than spouse/companion living at home--this was typically an adult roommate or an older child.

In developing a classification index of household occupancy, the important criteria in terms of handling and coping with multiple roles are (1) whether the homeworker lives with other adults, and (2) whether the homeworker lives with children. The following 4 category groups are based on these 2 criteria.

Table 5
*Household and Work Characteristic Variables
Examined in Subsequent Analyses*

HOUSEHOLD STRUCTURE

Household Occupancy: Solos, Adults Only, Full Nest, Single Parents
Household Control: Strong, Moderate, Weak; extent to which set rules
and procedures are used to run family life
Household Organization: Strong, Moderate, Weak; degree of clear
organization and structure in planning family activities and
responsibilities

WORK CHARACTERISTICS

Business Meetings Held in Home: Whether or not; Frequency
Average Number of Hours Work at Home Per Week: 20 hours or less;
20.1-40 hours; 40.1-60 hours; 60+ hours
Degree of Friendship Opportunities of Job: High, Moderate, Low
Degree of Working with Others of Job: High, Moderate, Low
Degree of Variety of Job: High, Moderate, Low

Sixteen homeworkers, 15% of the sample, live by themselves; these households are called "Solo Households" or "SOLOS."

Seventy-one (68.3%) of the homeworkers had a spouse or companion residing at home. Twenty lived only with a spouse/companion, 7 lived with a spouse/companion and other adults in the home, and 6 had no spouse/companion but lived with other adults. These were grouped together into one category called "ADULTS ONLY" households.

Thirty-four had a spouse/companion and children (under 18 years old) in the household; 10 had a spouse, children and other adults; and 6 had children and other adults, but no spouse/companion. Again these were grouped into one category called "FULL NEST" households. These households were similar in reporting high levels of sharing in household decision-making.

A final category called "SINGLE PARENTS" includes homeworkers with only children as other household occupants. Not all single parents are in this category. In FULL NEST households there are 6 households with children and other adults, but no spouse/companion present. But in terms of household decision-making and adult care and support, it is this lack of any adult support in a household with children that is reflected in the category SINGLE PARENTS.

These categories are listed Table 6. There were no substantial differences between men and women in these groups except that all single parents were women. Homeworkers in Solos and Single Parents households have higher education levels than those in Full Nest and Adults Only households. Almost two-thirds of Solos have attended or completed graduate school (Table 7). Homeworkers in Full Nest households have the lowest levels of education.

Table 6
Household Occupancy

<i>Solo</i>	<i>15.4%</i>	<i>(16)</i>
<i>Adults Only</i>	<i>31.7</i>	<i>(33)</i>
<i>Full Nest</i>	<i>48.1</i>	<i>(50)</i>
<i>Single Parents</i>	<i>4.8</i>	<i>(5)</i>
	<i>100.0%</i>	<i>(104)</i>

Table 7
Highest Education Levels for Household Occupancy Types

	<u><i>Not High School Graduate</i></u>	<u><i>High School Graduate</i></u>	<u><i>Technical School</i></u>	<u><i>Some College</i></u>	<u><i>Graduate of 4 year College</i></u>	<u><i>Attend or Completed Grad School</i></u>
<i>Solos</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>	<i>13.3%</i>	<i>13.3%</i>	<i>73.3%</i>
<i>Adults Only</i>	<i>0</i>	<i>9.1</i>	<i>6.1</i>	<i>24.2</i>	<i>24.2</i>	<i>36.4</i>
<i>Full Nest</i>	<i>2.0</i>	<i>14.0</i>	<i>8.0</i>	<i>24.0</i>	<i>28.0</i>	<i>24.0</i>
<i>Single Parent</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>40.0</i>	<i>0</i>	<i>60.0</i>

As might be expected, Solos and Single Parents have the lowest median household income (Table 8). Personal income levels are similar among the groups except that Single Parents have relatively lower incomes (Table 8).

Table 8
Median Household and Personal Income

	<u>Household Income</u>	<u>Personal Income</u>
<i>Solo</i>	<i>between 25,000-29,000 and 30,000-39,999</i>	<i>between 20,000-24,999 and 25,000-29,999</i>
<i>Adults Only</i>	<i>between 40-49,999 and 50-59,999</i>	<i>25,000-29,999</i>
<i>Full Nest</i>	<i>40,000-49,999</i>	<i>20,000-24,999</i>
<i>Single Parent</i>	<i>25,000-29,999</i>	<i>between 7,500-9,999 and 10,000-14,999</i>

About three-quarters of homeworkers in households with other adults (Adults Only and Full Nest) report sharing financial responsibility with others (Table 9).

Table 9
Percentage of Homeworkers Reporting Sharing
Household Financial Responsibility with Others

<i>Solos</i>	<i>0.0%</i>
<i>Adults Only</i>	<i>75.8%</i>
<i>Full Nest</i>	<i>76.0%</i>
<i>Single Parents</i>	<i>20.0%</i>

HOUSEHOLD CONTROL AND ORGANIZATION

Households can also be characterized by structural arrangements. In this study we assessed: the degree of CONTROL and the degree of ORGANIZATION. Eight items were used to assess these characteristics (see Table 10).

Table 10
Household Environment Questions,
Rated on a 3-point Scale

Organization

Household activities carefully planned
Neat and orderly in household
Hard to find things in household
Duties clearly defined in household

Control

Inflexible roles in household
Emphasis on following rules in household
Set way of doing things in household
Few rules to follow in household

Each item had a fairly normal distribution of responses (see Appendix C). The items for each category of Organization and Control were summed. A three-part index was then formed (Strong, Moderate, Weak).

In comparing the household Organization and Control with the Household Occupancy Types, there are no differences between occupancy types for organization, but some differences on the amount of control ($X^2 = 12.78$, 6 d.f. $p < .05$), with Solos tending to higher levels of Weak, and Full Nests reporting higher levels of Strong.

AVERAGE WORK TIME

The average number of days per week worked for this sample is 5.5 (s.d. = 1.29); average number of weeks per years, 49.3 (s.d. = 3.41); average number of hours per week worked at home, 37.5 (s.d. = 20.5); average number of hours per week working on the computer, 21.2 (s.d. = 15.04); and average time spent on phone for business-related calls, 9.49 (s.d. = 8.12).

The AVERAGE NUMBER OF HOURS WORKED Per Week is developed into a 4-part index as seen in Table 11.

Table 11
Average Hours Worked at Home Per Week

<i>20 hours or less:</i>	<i>24.3%</i>
<i>20.1 to 40 hours:</i>	<i>44.7%</i>
<i>40.1 to 60 hours:</i>	<i>21.4%</i>
<i>60.1 and more:</i>	<i>9.7%</i>

There were no differences in hours worked for the different household occupancy types. There were marginal difference ($F[1,101] = 3.1, p = .08$) for gender, with men working more hours (43.2) than women (35.3).

Of the sample 32% said they worked more hours since they started working at home, 28.2% said they worked less, 33.0% said they worked the same, and 6.8% did not work outside the home before. Those who said they worked less hours often mentioned that they still accomplished the same amount of work as before in less time. Others had developed childcare obligations when they began working at home and deliberately reduced their work hours.

For those who said they worked more hours, the median amount of additional hours was 14; for those who said less hours, the median was 18.

VARIETY, FRIENDSHIP OPPORTUNITIES AND WORKING WITH OTHERS: JOB CHARACTERISTICS

Forty-one of the homeworkers employed others in the home: of these, 14.6% had babysitting and childcare employees, 75.6% had housecleaning employees, 9.8% had gardening employees, 2.4% employed maintenance people and 39% had business-related employees. Thus, 16 of the total 104 sample had business-related employees in their homes. The median number of business-related employees was 1, but ranged from 1 to 16. A medical transcriber had 16 people working in her home on 3 different shifts.

Appendix D provides a list of occupations of these homeworkers. But occupation title is perhaps less relevant to the concerns of professional homework than other characteristics of the work itself.

The type of work was classified according to the JCI subscales: autonomy, task identification, feedback, variety, friendship opportunities, and working with others. Responses to the autonomy, task identification and feedback questions had very little variation among this sample (Appendix E). Generally the majority of homeworkers here had jobs with a high level of autonomy, little supervisory feedback, and generally worked on projects from beginning to end. Many management and organizational theorists believe a primary characteristic of professional occupations is the amount of autonomy and control in one's work. Many of the word processors here who might be classified as clerical workers in other occupational indices are classified here alongside accountants and free-lance writers in terms of work characteristics. The term professional homeworkers for this sample is appropriately descriptive. Many "clerical" employees who were self-employed did consider themselves professional. In some cases they had other people working for them, had 1 or 2 rooms of their home exclusively devoted to work, and commanded respectable salaries.

Given the lack of variation in autonomy, task identification and feedback, further analyses were not undertaken for these job characteristics.

There were differences in this sample on the amount of VARIETY, FRIENDSHIP OPPORTUNITIES, and WORKING WITH OTHERS (Appendix E). A 3-part index was formed for each of these characteristics by summing the individual items and classifying each into a low, moderate, and high level category.

Women, compared to men, had work with either a low level of variety (22.7% of women to 10.7% of men) or high level (40% of women to 25.0% of men) ($X^2 = 6.09$, 2 d.f., $p < .05$). Homeworkers in Full Nest households had low levels of work variety (30% for Full Nest compared to 7% of Solos, 9% of Adults Only and 20% of Single Parents), while those in Solo households had high levels of work variety (73% of Solos compared to 36% of Adults Only, 22% of Full Nest and 60% of Single Parents) ($X^2 = 18.87$, 6 d.f., $P < .01$).

BUSINESS MEETINGS AT HOME

Almost the entire sample (92%) report meetings with clients or work partners out of their home. Fifty-six percent have clients, employees, or work partners come to their home. Generally the average number of people coming at the same time is 1.6 (s.d. = .996), with a range from 1 to 10. This characteristic, referred to as BUSINESS MEETINGS AT HOME, is examined in 2 ways: (1) whether or not such meetings occur in the home; and (2) by a 4-part index of the frequency of those meetings: (a) less than once a month; (b) less than once a week but more than once a month; (c) 1-2 times a week; (d) more than twice a week.

THE PACE AND RHYTHM OF PROFESSIONAL HOMEWORK

Time management is a bandied phrase in business-oriented magazines, women's magazines, professional conferences, and therapeutic counseling. "Managing time" is of concern to people who must balance multiple roles. A Harris (1980) poll finds that the idea of gaining time is one of people's highest desires. Given only 24 hours in the day and one cannot create more time, "managing" time, that is how we "use" and schedule it, is one method of "gaining." As suggested by McGrath and Kelly (1986):

By and large, when people think of time they think of clocks and calendars... We tend to think about time as if it were abstract, unidirectional, uniform in passage, divisible, and homogeneous; but we tend to use time as if it were concrete, phasic and epochal. (p. 36)

Homeworkers may spend more time working at home since work is always "at hand." This is what McClintock (1984) found in his survey of 158 homebased teleworkers. Other people may spend less time, either because of a lack of self-discipline or because they can get more done in less time without the interruptions from work colleagues. The dimensions of time that are critical for study are not only the amount allocated for specific activities, but also the phasic dimensions of its flow, such as pace (i.e. how quickly events unfold), rhythm (i.e. patterns of activities with repeated emphasis and pace), and sequence (i.e. order of events) (Werner, 1987).

Rhythm, pace, and sequencing are ways of managing time and of managing role changes and conflict. Homeworkers may work at night when there are fewer interruptions from family members or when accessibility to mainframe computer services is cheaper and faster (Christensen, 1985). Rarely would they do so if they had to take the car, dig it out of the snow, and drive in a snowstorm to an isolated office building at night.

The phrase "9 to 5" does not describe the working schedules of homeworkers. In interviews with 14 women homeworkers Christensen (1985) found that their work schedules were split between the morning and either afternoon or night hours. From phone interviews with 45 homebased teleworkers, Pratt (1984) found only 40% started work sometime between 7:00 to 9:00 a.m. Half of them worked at night. McClintock (1984) found weekend mornings were the most frequent times for work, weekend evenings the least.

The temporal pace, sequence, and rhythm of professional homework is explored here. The effectiveness and desirability of temporal segregation and sequencing is discussed in a later chapter. In this section the questions addressed are:

What amount of time is engaged in work, domestic and leisure activities?

How often are other activities done concurrently with work activities?

How is work time scheduled throughout the day?

Does the timing and scheduling of professional homework differ between homeworkers of different household compositions? of different genders?

Do people who feel their work and domestic activities temporally overlap differ in work scheduling and timing from those who feel such activities are temporally distinct?

To what extent does work occur when others are at home?

THE SEQUENCING AND RHYTHM OF PROFESSIONAL HOMEWORK

When asked about the regularity of their work schedule, only half the homeworkers felt they kept a regular work schedule through the week (52.5%); 58.6% felt it was regular throughout the month, and 49.5% throughout the year. Basically flexibility of working at home--whether this is imposed or chosen--is reflected for a sizeable portion of professional homeworkers on a weekly, monthly and annual basis.

Respondents completed a time diary of a typical working day or the last working day (see Methodology section), indicating, for half-hour segments, which of 6 predetermined activities occurred, whether or not they were at home, and whether or not others were at home. After completing the log they indicated on a 5-point scale how they felt this typified a working day for them. On this scale, 65.6% of homeworkers felt their time budget reflected a quite typical day (i.e. #1 or #2 on a 5-point scale); 8.6% said it was not typical or there was no such thing as a typical working day for them (i.e. #4 or 5). Subsequent analyses involved information from all respondents regardless of the degree of typicality.

The first thing to consider is the **amount of time engaged in activities during the day**. Figures 3 and 4 (Appendix F for details) indicates this for the sample as a whole, and for homeworkers of similar household occupancy types. For the sample, approximately 8 hours were

Figure 3
Percentage of Day Engaged in
Specific Activities
(Entire Sample)

Entire Sample

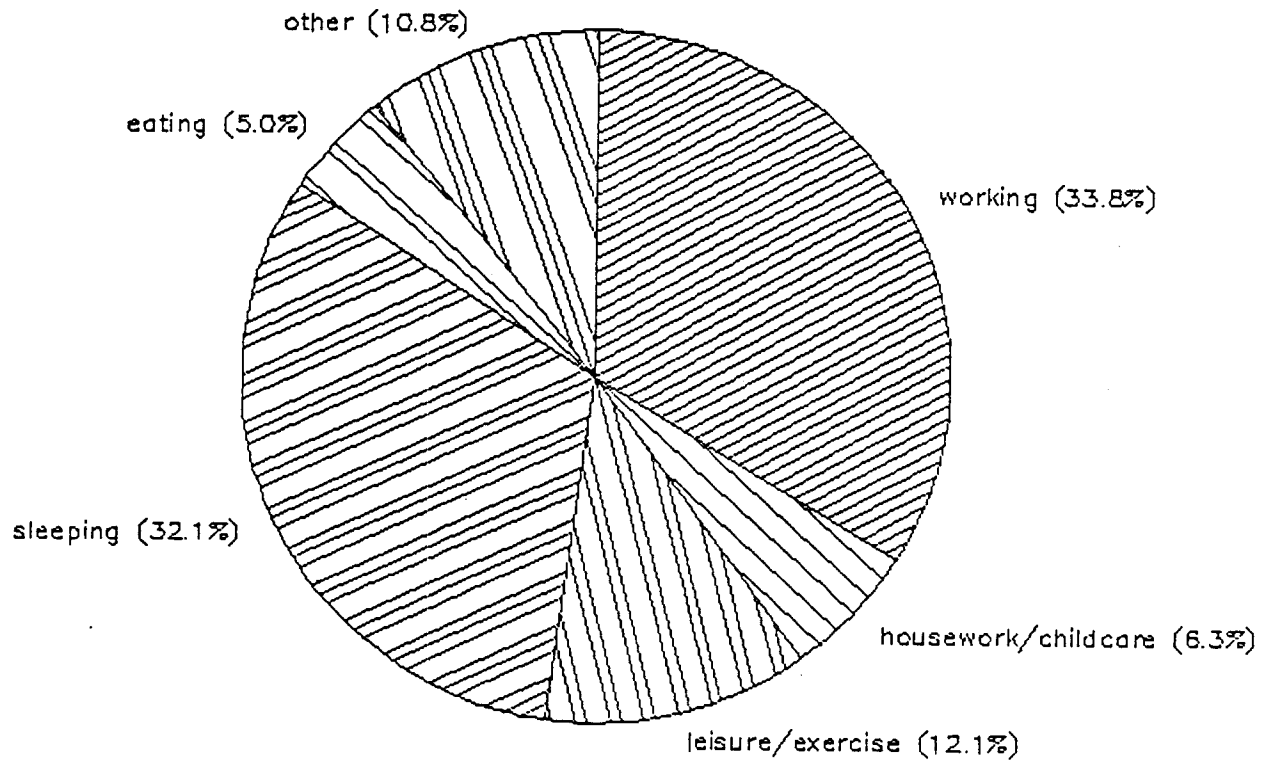
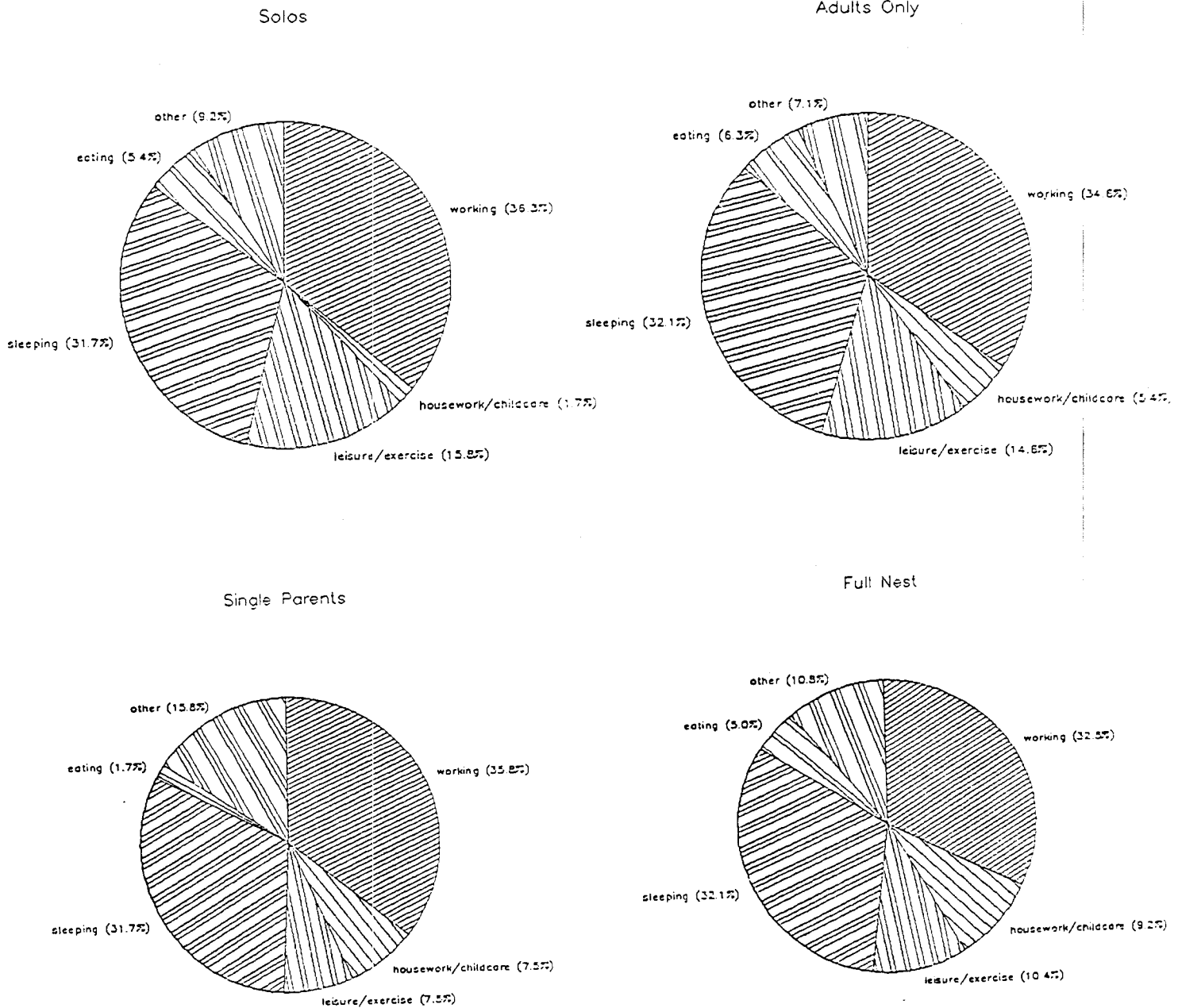


Figure 4
*Percentage of Day Engaged in Specific Activities, for
 Different Household Occupancy Types*



spent exclusively working, 7.7 for sleeping, 1.5 hours for eating, and almost twice as much time for leisure/exercise as domestic or child care (2.9 compared to 1.5).

Interestingly, **multiple activity periods** (i.e. 2 activities recorded within the same time frame) occur for these workers, but not frequently. For the sample as a whole, approximately 2.5 hours a day were in these multiple activity periods (see Appendix F). However, these multiple-activity times occur during specific parts of the day: those involving work occur in the early afternoon and somewhat late at night; those not involving work peak around noontime and late afternoon/early evening times (typically meal times). These figures reflect a liberal estimate of overlapping activity periods. Overlapping activities were coded similarly to sequential, non-overlapping activities in a single time period (i.e. within a half-hour) and it is impossible to differentiate the two.

Is professional homework done from "9 to 5"? Hardly. Table 12 (Appendix G) lists the percentage of people **working at different times of the day**. Compare these figures to the percentages of people doing domestic or child care in the same time periods. Approximately 15% of these homeworkers work some time between midnight and 6 a.m.; approximately 43% work at least sometime between 9 to 12 p.m. Conversations reflect that working late evenings, nights and early morning hours may be because (1) of personal preference for working different times of the day, (2) it is easier or more convenient, to the homemaker or the household, to work at night while the family sleeps and doesn't need their assistance or when children are no longer noisy, (3) they work longer than an 8 hour day, (4) telecommunications are less expensive at this time and/or more accessible (e.g. business phone calls to the East Coast from California are cheaper if made before 6:00 a.m.).

Table 12
*Percentage of Homeworkers Engaged in Work and
Domestic/Child Care Activities at Different Times
of the Day*

	<u>Work Activities</u>	<u>Domestic or Childcare</u>
12:00 am - 5:59 am	14.6%	1.0%
6:00 am - 11:59 am	93.7	49.0
12:00 pm - 5:59 pm	97.9	53.1
6:00 pm - 8:59 pm	57.3	43.7
9:00 pm - 11:59 pm	42.7	12.5

Of further importance is the **blocking of work activities**. This was initially examined by looking at the time consecutively engaged in work activities (including multiple activity periods involving work), called "work blocks." Six hours of work done in one block of time, say from 9 to 3, may be experienced differently than 6 hours done in scattered blocks, such as between 8 to 10, then again at 12 to 1, and again at 3:30 to 5, and finally from 9 to 10:30. The number of work blocks is described in Table 13. The mean is 2.4 for the sample, although over 15% perform their work in 4 or 5 different blocks of time.

Table 13
Number of "Work Blocks" on Working Day

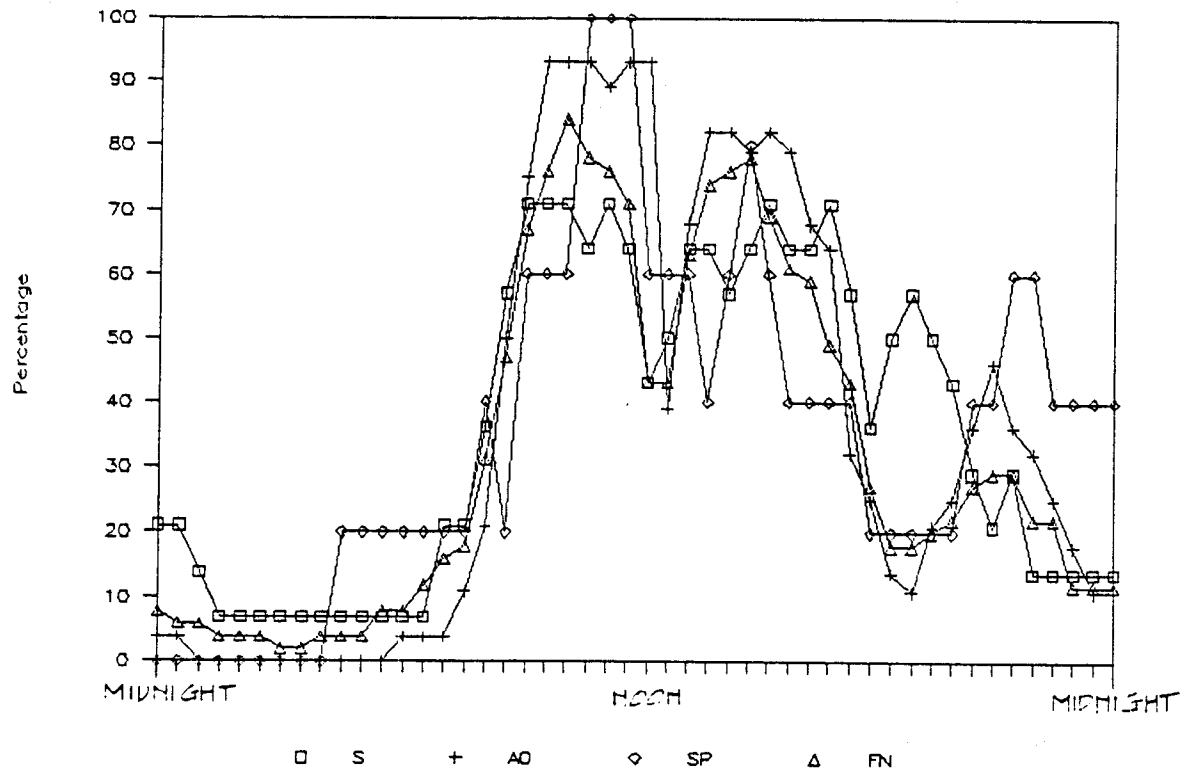
<u># of Work Blocks</u>	<u>% of Entire Sample</u>
1	16.7%
2	40.6%
3	26.0%
4	11.5%
5	4.2%

DIFFERENT PACES FOR DIFFERENT HOUSEHOLDS

As indicated in Figure 4 (and Appendix F), Solos spend considerably less time in domestic/child care than other households, and homeworkers in Solos and Adults Only households spend considerably more time in domestic/child care but also more in leisure or exercise time. These households also spend less time in work, and less in multiple activities involving work.

These groups work at different times of the day also (as seen in Figure 5 and Appendix G). Solos work more than the others late night or early morning hours (i.e. between midnight and 5:30) and early evenings, but they surprisingly drop in numbers between 9:00 - 11:30 p.m., perhaps when they are involved in leisure/exercise pursuits.

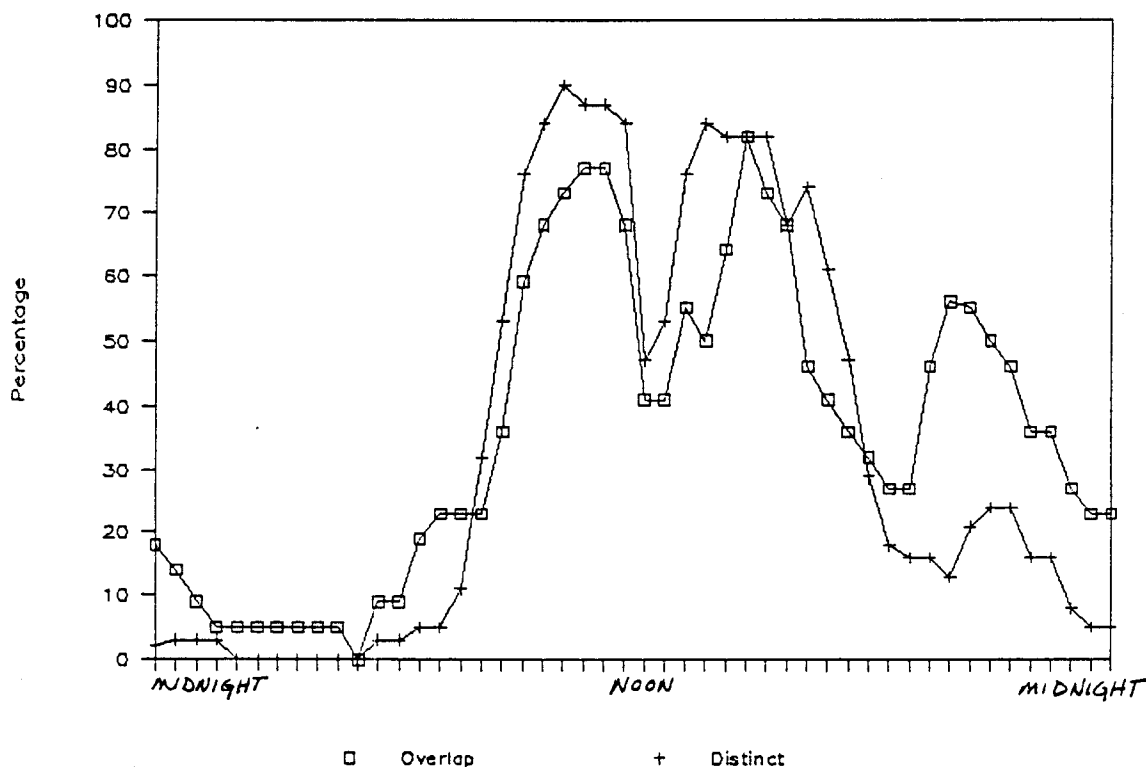
Figure 5
Percentage Engaged in Work Activities During the Day,
for Different Household Occupancy Types



Women work considerably less than men in the early and late evening times (Appendix G). This is perhaps a reflection of the lower number of hours they work in comparison to men. But as for time involved in domestic/child care, more than twice as many women than men are involved in this activity during evening and night periods.

We also asked homeworkers to indicate on a 5-point scale the extent they felt their work roles and domestic roles overlapped in time. Figure 6 (and Appendix G) compares the percentage of homeworkers working throughout the day of the extremes (#1 versus #4 or 5) on this scale. Those indicating there was much overlap are those working after midnight and evening hours compared to those who feel their roles are temporally distinct.

Figure 6
*Percentage Engaged in Work Activities During the Day,
 for Those Expressing Temporal Role Distinction & Overlap*



WHO IS AROUND WHILE ONE IS WORKING?

On a typical workday, people are at home an average of 20 hours. This ranges from 2.5 to 24, with a skew at the higher end. Fifteen people reported that they were never out of their homes at all, and 27 reported they were out only 1 hour or less.

Respondents are at home with others an average of 13 hours, but of course this varies considerably by household occupancy type.

Table 14 (and Appendix H) lists the proportion of work time when other people are in the home. Although for the entire sample this comprises 45% of the work time, it varies considerably by household occupancy type. Men spend a significantly higher percentage of the work time at home with others around: 66% for men, 38% for women.

Table 14
Proportion of Work Time Spent with Others in Home

<i>Solos</i>	<i>15%</i>
<i>Adults Only</i>	<i>29%</i>
<i>Full Nest</i>	<i>66%</i>
<i>Single Parents</i>	<i>18%</i>
 <i>Men</i>	 <i>66%</i>
<i>Women</i>	<i>38%</i>

GRAPHIC SCENARIOS OF WORKING DAYS

Figures 7 and 8 graphically show the sequence of activities on a typical working day for two homeworkers in Full Nest households: one with 2 older children, one with 5 children all under the age of 6 years. They were derived from the time diaries of 2 homeworkers whose time patterns reflect the variety of distributions given in Appendix I (Activities for Each Time Period) and Appendix J (Home Occupancy for Each Time Period).

Figure 7
*Scenario of Sequence of Activities on a Typical Working Day,
 for Mother in Full Nest Household with 2 Older Children*

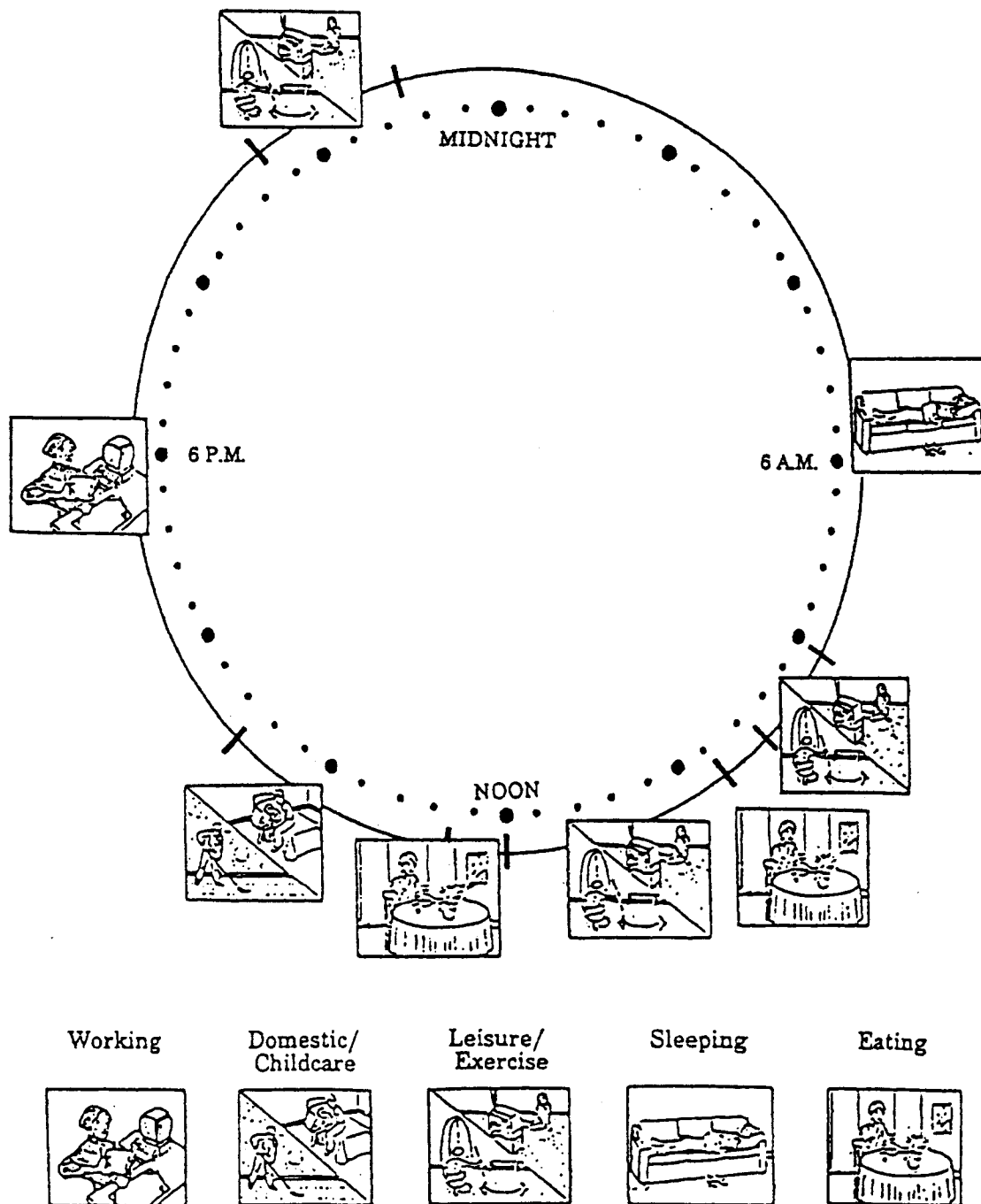
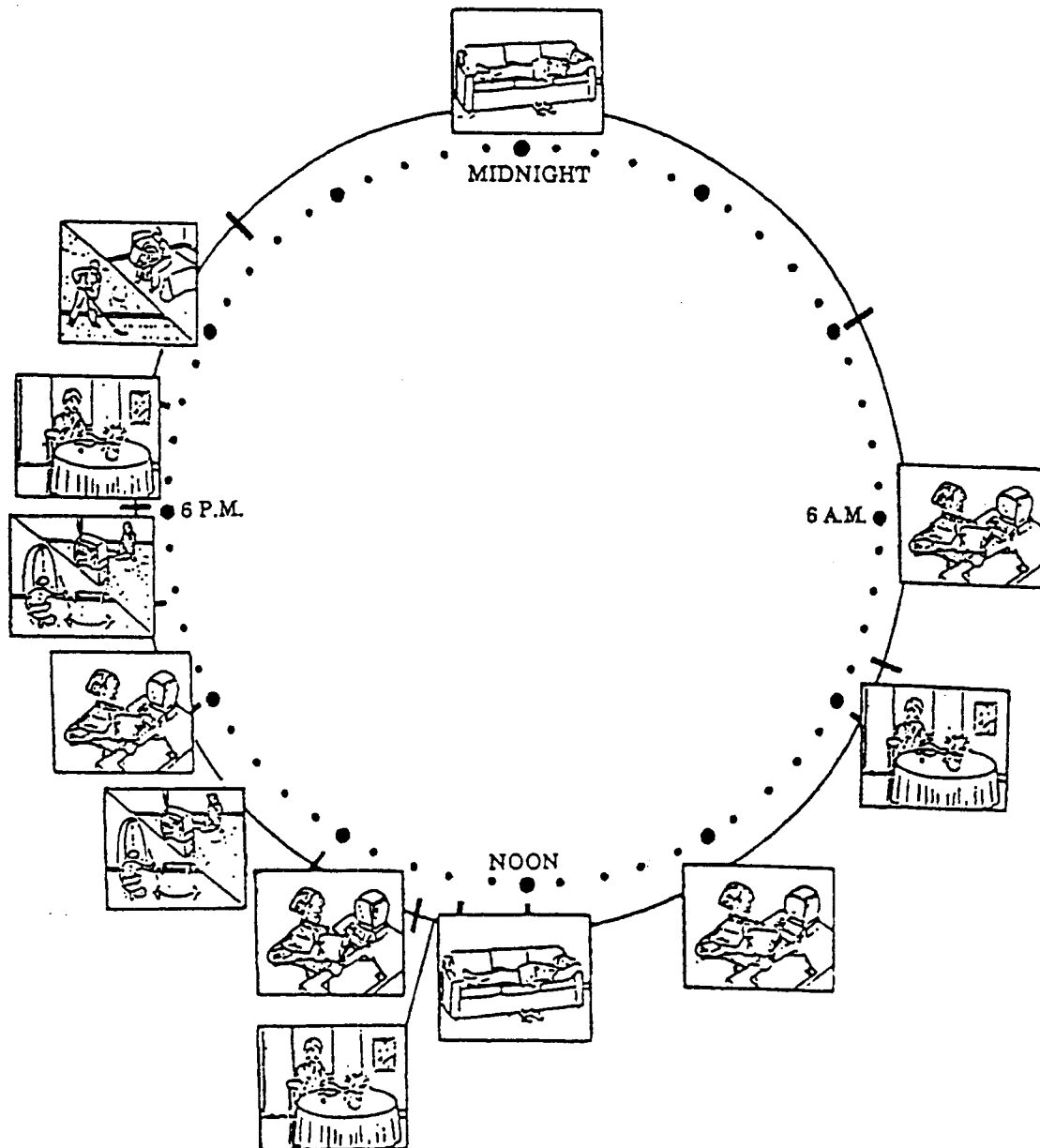


Figure 8
*Scenario of Sequence of Activities on a Typical Working Day,
 for Mother in Full Nest Household with 5 Young Children*



CLOSE TO HOME: THE COMMUNITY CONTEXT OF HOMEWORK

Today with both the majority of men and women working outside the home, the suburban residential development is a no-(wo)man's land during the weekday. Children are at school, parents at work, and grandparents live someplace else. Some writers suggest that as residences become workplaces, the neighborhood itself might undergo change (Nilles, 1985). More specifically they speculate that neighborhoods will become vital places, with people using more neighborhood services and facilities. Law enforcement agencies are hopeful that visibility of homeworkers in the neighborhood during the day will deter potential criminals and lead to more neighborhood surveillance of strangers. More local shops, more people on the streets and in the shops, people recognizing each other--all these conjure images of a tighter-woven community than the residential developments of today.

The notion of community is central to the idea of residential and societal development but the actual definition of the concept remains elusive. In 1955 George Hillery analyzed the social science literature to date and found 94 different meanings given to the term community. The most common definition focuses on an aggregate of people with shared common interests in a particular locality, most notably residential.

During the early 1960s Melvin Webber questioned the preoccupation with territory in defining community as he promoted the notion of "communities without propinquity" within the American landscape. Networks for maintaining social contact and shared interests did not have to depend upon physical proximity of people to each other or to services, but only upon accessibility to them. The emotive or experiential dimension of community was available, he argued, from transit and telecommunication networks instead of territory. Machines originally developed to entertain and inform were now also to "reach out and touch someone." Place-community in the residential sphere became little more than territorial areas with "limited liability" or casual associations.

However, interest communities and associations exist outside the residential realm. Such associations often transcend residential boundaries. One pervasive association, often territorially bound, is the "world of work." As described below, it may well be the last remnant of place-community.

If we look at our social scene today, we see that to a great extent we are a nation of strangers. The deep roots of the extended family and the highly supportive social systems of

years ago have declined and almost vanished. This makes me think that there is a new kind of neighborhood, and that one of the major reasons why people come to work is to be with other people. At work, they see and touch and exchange information and confidences as they do nowhere else. (Malcolm & Houseman, 1985)

Today, however, this last bastion of place-community seems threatened by the prediction of widespread introduction of computers into the home. Futurists and forecasters envision an electronic community, with people seldom venturing out of their homes to work or socialize, but rather communicating through electronic bulletin boards and electronic mail, purchasing household goods from mail-order catalogs and on-line networks, and educating and entertaining themselves from a myriad of software programs. Social contact, they suggest, will depend less on face-to-face contact, or even wires and waves, and increasingly more upon a chip.

Similar concern was expressed with the introduction of television into the home as it reshaped the form of American housing and community:

Everything now can be done inside. We can be entertained in the coolness and privacy of our own homes. No need for neighbors. The family unit is now independent from Mankind except for the long wire that brings the amazing power from the electric company. (West, 1976, p. 47)

The grandfather of the electronic community image is futurist Alvin Toffler. In his 1980 bestseller, The Third Wave, he predicts an immense transition of people basing their work at home, leading to what he calls, the "home-centered society." This would result in greater community stability (people don't have to move because of job transfers), better environmental quality (due to reduced transit), and a change in the service industry (e.g. he predicts a new group of small-scale computer stores and services would increase while the postal service would decrease).

From these new communities emerges the "electronic expanded family":

The work-at-home family of tomorrow inviting an outsider or two to join it--for example, a colleague from the husband's or wife's firm, or perhaps a customer or supplier engaged in related work, or, for that matter, a neighbor's child who wants to learn the trade. One can foresee the legal incorporation of such a family as a small business under special laws designed to foster the commune-cum-corporation of the cooperative. For many the household would become an electronic expanded family. (p. 221)

This electronic commune, economically-centered rather than place or emotively centered, he predicts, will be a workable, stable family form because of its foundation of economic sharing rather than psychological.

Toffler sees the possibility of place-community untenable in American society today with the present commuting and work structures. His enthusiasm for the electronic community, or what he calls telecommunity, anticipates a closer networking of individuals to each other. However, his focus is on a very small collective scale, and what he really advocates is little more than increased bonding among family members. He does suggest a proliferation of neighborhood restaurants, theaters, pubs, and clubs as a result of telecommuting but these seem incidental to his major focus.

All these futuristic visions are based on little more than personal exposure and preference. Such visions do not lend themselves to planning and policy decisions. Here questions are posed which address the nature of the neighborhood in the lives of professional homeworkers. The questions are:

What amenities and services of the immediate neighborhood are of increasing importance in the lives of homeworkers?

Are professional homeworkers more attached to their immediate neighborhood?

When working, are they attentive to activities happening in the neighborhood?

SERVICES AND AMBIENCE OF THE NEIGHBORHOOD

Respondents rated the importance of having several listed neighborhood amenities, services, and characteristics in close proximity to the home (i.e. within a 15 minute walk). They also indicated whether each neighborhood characteristic had increased or decreased in its importance since working at home. For some respondents their latter response to changed importance was directed not only to the initiation of homework but also to incidents which coincided with this initiation, particularly the birth of a child. Appendix K lists the percentage of homeworkers desiring each amenity in their immediate neighborhood. More pertinent here are those services and amenities which increased in importance since working at home, as listed in Appendix L (and abbreviated on Table 15).

Table 15
*Percentage of Homeworkers Expressing Increased Importance
 in Select Neighborhood Amenities Since
 Working at Home*

<i>Copy Center</i>	<i>53.9%</i>
<i>Post Office</i>	<i>52.9</i>
<i>Office Supply Store</i>	<i>40.2</i>
<i>Peaceful and Quiet</i>	<i>30.4</i>
<i>Pleasant View</i>	<i>26.5</i>
<i>Privacy, Neighbors</i>	
<i>Leave You Alone</i>	<i>24.5</i>
<i>Library</i>	<i>24.5</i>
<i>Convenient to</i>	
<i>Downtown</i>	<i>24.0</i>
<i>Quiet Walking</i>	
<i>Conditions</i>	<i>19.6</i>

As expected, because of the changed location of work, proximity to facilities and services instrumental to the work tasks (i.e. copy center, post office, office supply shop, library) took on added importance. One fellow, a magazine writer, mentioned that before he started working at home he always wondered who on earth would use a copy center. Now he uses it daily. Another respondent said she wished the post office was right next door now. A public relations specialist is, according to her postal clerk, the best post office customer in her small rural town, especially for special services such as express mail and shipping of packages.

Convenience to downtown was important also, disconfirming speculation that the professional homework force will lead to migration to rural and non-metropolitan areas. At least for this sample, the nature of their work, and the current state of telecommunications usage, many homeworkers want to be close to downtown for legal and other services and also because they need to travel to visit clients or attend business meetings. Being close to downtown also makes it easier for the client to come to the home office when necessary.

Libraries also grew in importance. As one woman mentioned, proximity to the library used to be important for her children's use. Now it has become a work-oriented service center for her, where she can get reference materials.

Domestic-related services such as fast food restaurants, convenience stores, and supermarkets also took on added importance. Convenience services are needed to adjust to the ever-present time crunch. Now one

does not stop on the way home from work to pick up a bucket of chicken. Rather a homemaker wants to stop working and head out from home to the neighborhood market or store or fast food restaurant.

Besides services, ambient neighborhood qualities were also more highly valued. Privacy from neighbors, peace and quiet, a pleasant outdoor view, and a place for a quiet walk were rated by more people as increasing in importance than many domestic-related services. Spending more time in their neighborhood, homemakers want it pleasant. One woman mentioned it was important to have a quiet walk during the day for her "breaks" which she needed outside the home.

But also having the neighborhood project a professional image is important for professional homemakers who have clients and business meetings in their homes. As one word processor said, "My street represents my business." One woman who did not have clients in her home expressed that since "clients know the address" the image they have of the location of her business was important. This was not always reflected in the questionnaire prestige item but also the item of "clean and uncluttered." Professional homemakers who have business meetings at home, compared to those who do not, express almost twice as much that prestige and clean/uncluttered qualities have increased in importance since working at home (see Table 16).

Table 16
Percentage of Homemakers Expressing
Increased Importance of Prestige and Clean/Uncluttered
Neighborhood Qualities,
Whether or Not Business Meetings at Home

	<u>With Business Meetings at Home</u>	<u>Without Business Meetings at Home</u>
Prestige	14.3%	7.0%
Clean & Uncluttered	18.2%	8.3%

EYES ON THE STREET OR ON THE SCREEN?

The majority of professional homemakers in this sample resided in five metropolitan areas. Homes were in places as diverse as a barn in the Wisconsin farmlands; high rise, multi-use buildings on Michigan Boulevard in Chicago; Southern California's version of the Italian hillside villa--homes overlooking the Pacific Ocean on the bluffs of Laguna Beach; and the ever-ubiquitous suburban ranch community in the

outskirts of Chicago, Milwaukee, Minneapolis/St. Paul, Los Angeles, and Sacramento.

How attached were homeworkers to their neighborhoods?

Perhaps no more or less than other residents, although we are unable to make such a comparison. Olson (1983a) reported that the relationship of homeworkers to their community had not been altered by the additional time spent at home. None became more involved in community activities although they did spend more time in leisure activities. However, her interviews did not specify whether or not those leisure activities were within the immediate neighborhood community.

A scale was developed from 4 questions addressing desire to be in the neighborhood, with 1 representing strong desire to spend time in the neighborhood, 9 weak. The average for this sample was 5.5 (see below).

(1) strong $\xrightarrow{5.5}$ weak (9)

Desire to spend time in neighborhood

The homeworkers did not display the attention hoped for by police departments and other community concerns. When asked whether or not they felt they recognized more of their neighbors, 70% replied that it had not changed; 27% said they did recognize more people.

Replying to a five-point scale of how attentive they were to neighborhood activities while working (see below), there was only moderate attention reported. Most people said they only attend to noisy activities.

(1) never pay $\xrightarrow{2.6}$ always aware (5)
attention

Attentiveness to street activities while working

Similarly people felt they would be very unlikely to notice someone on the street while working (see below).

(1) very likely $\overset{4.2}{\underset{\vee}{\rule{1.5cm}{0.4pt}}} \text{ very unlikely (5)}$

Likeliness to notice person on street while working

Even though homeworkers thought they would be fairly likely to recognize a person on the street if seen (see below), still it was unlikely that they would even notice in the first place. One woman living in a ranch home said that a burglary had occurred two doors from her while she was working. She never knew anything about it until the police came. Another writer mentioned a burglary occurring on the same floor of the apartment building she lived in. Again this occurred while she was working but she did not hear or notice anything. A few people mentioned that when they notice a stranger on the street hanging around they go out and talk to that person.

(1) very likely $\overset{2.5}{\underset{\vee}{\rule{1.5cm}{0.4pt}}} \text{ very likely (5)}$

Likeliness to recognize person on street when noticed

The assumption that because people are in their homes working they will survey activities outside is fallacious. Such an assumption does not account for what people are doing and how they are doing it. Homeworkers are absorbed in their work. A few people mentioned having to discipline themselves to concentrate on their work and not be distracted. This concentration does not lend itself to glancing out the window, taking in neighborhood scenes. Some people did mention that when they took breaks from their work they would get up and move around the house, sometimes glancing out the window or going out to do yardwork. For the most part though, people concentrate on their work. Only if an unusual sound occurs or dogs are barking will people break from their work to look outside.

In addition people often work in the back of their homes, far from a front window. They may choose to work in the back to be away from the noise of a busy street, or because they want a view of landscaping in the backyard. Also many people use a spare bedroom as their workspace and these tend to be located in the rear of the home. Some people were using

their living rooms as workspaces. One might suspect that these rooms would be ideal situations for people to glance out the windows onto the street. But even in these cases, people typically kept the drapes closed. Exceptions were those people who were active members of neighborhood watch groups.

Computer technology decreases a person's likelihood of looking out the window. Glare is one of the most constant problems VDT (CRT) users face. Numerous people mentioned keeping blinds or drapes closed to reduce glare on the screen, thereby reducing the chances of seeing what is happening outside on the street.

HOMeworkERS AS ARCHITECTS: THE IDEAL HOME

Plans and designs for the home office fill popular magazines such as The Handyman. Bookstores are stocked with books like The Electronic Cottage (Deken, 1982), Bringing High Tech Home (Silberstein & Benton, 1985), Working from Home (Edwards, 1985), Working-At-Home (Atkinson, 1985), Office at Home (Scott, 1985) and others which suggest layouts, equipment, and furnishings for the home office. Merchandisers are not to be outdone and now advertise furnishings intended for the home office (Figures 9, 10 and 11). Specialists in the Computer Science Department of Concordia University in Montreal are designing a professional workstation for the home. Even contemporary novels describe the layout of the home office:

Most of his work was done at home: otherwise he might not have cared so much about the mechanics of the household. He had a little study in the spare room off the kitchen. Seated in a stenographer's chair, tapping away at a typewriter that had served him through four years of college, he wrote a series of guidebooks for people forced to travel on business (Tyler, 1985, p. 10-11).

Figure 9
Featured Home Office, Hollywood Style, Esquire Magazine

SMART MONEY		
<p>With more and more people working out of their homes each year, the home office is no longer an oxymoron. For those willing to sacrifice the mutual asylums afforded by separate</p>	<h3>Real Estate</h3> <h2>At Home in the Office</h2>	<p>areas of work and play, it can be a rather efficient and convenient alternative. The coffee is probably better. And the commute is hard to beat.</p> <p>—Lawrence J. Gallagher</p>
		
<p>HOLLYWOOD</p>		

PHOTOGRAPH: TIM STREET PORTER

"Ingmar Bergman meets Laverne and Shirley" is how the owner describes the combination of Danish modern and American kitsch in his office. To achieve the desired mixture of immaculateness and liveliness, the entire floor was stripped down to the concrete and covered with obsolete turquoise paving tiles. The table, at which the screenwriter/director does most of his work, is fashioned from the slate of an abandoned pool table, supported by four 53.50 car jacks. The fireplace was done in matching cadmium yellow and flat black. Eaz and Kiz, two local Malibu surf-punks, were commissioned to provide the spray-paint mural. The house was renovated in its entirety: this room ran the owner about \$10,000.

DELAN A. MURPHY, B&B CONSTRUCTION, ARCHITECT

Many of these publications contain valuable information and advice, especially that referring to electrical wiring and ergonomically designed furniture. Authors may even go so far as to recommend and illustrate particular layouts for different home occupations (Wollman, 1985) based, it seems, on personal experience and speculation.

Although newspapers and popular magazines provide anecdotal descriptions of people's home offices, little is known about homeworkers' actual preferences for home workspaces. This chapter provides information about what people say they would like in an ideal home situation. In particular we ask:

For what reasons do homeworkers choose their current workspaces in the home?

What do they perceive as the positive and negative features of their existing workspaces?

What are the most desirable physical features for an ideal workspace? Do people with different work or household characteristics prefer different features?

Figure 10
Home Office Furniture for Sale, Target Stores

Save now on home office furniture

29.99 Reg. 39.99
3-shelf bookcase has oak-color finish; measures 31½Hx28¼Wx11½D". Adjustable office chair, everyday low price, 29.99

44.99 Reg. 59.99
5-shelf bookcase has oak-color laminated finish and 3 adjustable shelves. 71Hx28¼Wx11½D".

39.99 Reg. 49.99
Student's desk has oak-color finish, pencil drawer and 2 shelves. 29½Hx41Wx19¾D". Gooseneck desk lamp, reg. 9.99, sale 6.99

Assembly required on all furniture.



"IT WAS AVAILABLE": REASONS FOR CHOOSING A WORKSPACE

Overwhelmingly homeworkers mention that they chose their present workspaces because of availability: it was not occupied by other people, displacement of activities was not necessary. In their words, it was "left-over space" (see Appendix M and Table 17). The present workspace might be a converted basement, attic room, extra bedroom or little-used living room (see Chapter 8).

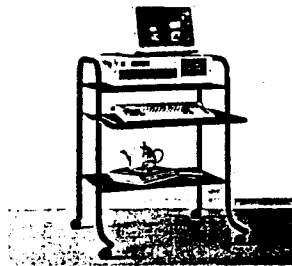
*Table 17
Percentage of Homeworkers Citing Reason
For Choosing Current Workspace
(Abbreviated Listing)*

<i>Availability; Spare Room; No Need to Displace</i>	<i>38%</i>
<i>Separate from "Living" or "Public" Area of Home</i>	<i>16%</i>
<i>Amount of Room Space; Spaciousness</i>	<i>15%</i>
<i>Separate, Private Room with Door to Close</i>	<i>12%</i>
<i>Smallest Room or Smallest Bedroom</i>	<i>10%</i>
<i>Natural Lighting</i>	<i>9%</i>
<i>Proximity to Front Entry</i>	<i>7%</i>

*Figure 11
Home Office Furniture Mail Order Catalog, Conran's*

H O M E W O R K

While the 80's have seen a boom in home businesses, we've been busy too—creating a far-reaching collection of exclusive designs that hold down the start-up costs of setting up a workplace. We've planned for whole-room offices for full-timers and living room corners for moonlighters, allowing room for you to exercise desk, storage and lighting options that suit your highly individual needs and your sense of style. Consider available space, the size of work surface you'll require, and two other essentials—good task lighting and comfortable seating.



CompuTech
Great Tech look for the home office. Designed to hold most popular PC configurations. Top shelf holds PC and monitor. Keyboard shelf measures 75" x 14 1/2", and slides under top shelf when not in use. Bottom shelf is ideal for

printer or supplies. Tubular steel frame with perforated steel steel shelves and plastic casters. Black enamel finish. C/A. Sweden. 42 1/2" x 22" x 18 1/2" x 31"
P796328 White
P796331 35 lbs. \$115.00

Another common response was the "separateness" of the workarea: either because it was located in a separate room with a door, or because it was distant from the "living" or "public" areas of the home. Although distance to particular rooms were sometimes mentioned, so was this amorphous "living," "public" area. When queried about what spaces these involved, actual rooms varied among the different respondents, but generally referred to rooms where others typically did housework, played, or entertained guests.

Table 18 and Appendix N support these interpretations with the percentage of people citing certain physical characteristics as a beneficial quality of their current workspace. Again, separation is important, although 13% mention proximity to kitchen. Home and room size, natural lighting and view, and quietness (both inside and outside the home) are positive elements. Problematic (Table 19 and Appendix O) are electrical outlets (either underpowered circuits, poor location of outlets, or not enough outlets), the size of the workspace, temperature and temperature control, lighting and insufficient storage. Approximately 10% of the homeworkers said their non-exclusive workspace was a problem, either because they were unable to take tax deductions on it, because they were disturbed by nearby television or other activities, because of insufficient storage and space, or because it was awkward when clients came into the home.

*Table 18
Percentage of Homeworkers Citing Physical
Characteristic as Positive Feature of Present Workspace
(Abbreviated Listing)*

<i>Separate from "Living" or "Public" Area of Home</i>	<i>22%</i>
<i>Amount of Space; Spaciousness</i>	<i>17%</i>
<i>Natural Lighting</i>	<i>16%</i>
<i>Separate, Private Room with Door to Close</i>	<i>15%</i>
<i>Proximity to Kitchen</i>	<i>13%</i>
<i>Spacious Home</i>	<i>13%</i>
<i>Quiet in Home</i>	<i>11%</i>
<i>View to Landscaping</i>	<i>11%</i>
<i>Quiet Neighborhood</i>	<i>10%</i>

Table 19
Percentage Homeworkers Citing Physical Feature as
Problematic in Present Workspace
(Abbreviated Listing)

<i>Temperature and Temperature Control</i>	<i>21%</i>
<i>Electrical Conditions</i>	<i>17%</i>
<i>Workspace Too Small</i>	<i>13%</i>
<i>Lighting</i>	<i>12%</i>
<i>Lack Sufficient Storage</i>	<i>12%</i>
<i>Non-exclusive Workspace</i>	<i>8%</i>

One word processor whose workspace was in her bedroom mentioned that sometimes a client needed to see something on the computer screen. Meetings then occurred in the bedroom. Sitting on the edge of the bed discussing the document was, understandably, awkward and unprofessional.

AN IDEAL HOME WORKSPACE

The previous information provides some clues about the desired physical qualities of a home when an office is part of it. But this information is constrained by what people have. In addition to asking people about their current physical situation, we also asked them to pretend that they could design an ideal workspace, for themselves, from scratch. We gave them a number of particular physical features and asked them to rate the importance of each on a 3-point scale. We also asked them in open-ended questions about the desired square footage of an office, the location of the office in the home, and any other characteristics they would desire.

Desired Size

When asked what would be the ideal size of their workspace, the mean response was 344 square feet, median of 240. This included all workspaces, if auxiliary space was desired. (Although many respondents could not answer with actual footage estimates, they often answered in relation to what they had--e.g. "twice the size of this"--from which we took calculations.)

Where to Locate It?

Table 20 and Appendices P and Q present what homeworkers feel are the ideal locations of the workspace in relation to other rooms of the home: which rooms/spaces they want close to the workspace, which far away, and those they want to see into. "Close" and "far away" are based on their subjective interpretations of these terms and not to any absolute physical distance.

Table 20
Percentage of Respondents Who Mention Desired Location of Rooms
in Relation to Workspace

Rooms Wanted Close to Workspace

62.5%	<i>Bathroom</i>
33.7	<i>Kitchen</i>
12.5	<i>Front Entry</i>
8.7	<i>Living Room</i>
6.7	<i>Den, Rec Room, TV Room</i>
5.8	<i>Bedroom(s)</i>

Rooms Wanted Distant from Workspace

35.6%	<i>Bedroom(s)</i>
31.7	<i>Kitchen</i>
20.2	<i>Living Room</i>
17.3	<i>Den, Rec Room, TV Room</i>
11.5	<i>"Living" Areas of Home</i>
8.7	<i>TV</i>

Rooms Wanted to See Into from Workspace

10.6%	<i>Outdoors, Yard, Balcony</i>
5.8	<i>Living Room</i>
2.9	<i>Corridor</i>
2.9	<i>Kitchen</i>

For the sample as a whole, the most ambiguous space is the kitchen: a large percentage want it close by the office (34%), a similar percentage want it distant (32%). Many who said they want it nearby enjoy going to the kitchen to get a cup of coffee or to make a sandwich. A few men and women mentioned they might be cooking while working and would like to be close by to check up on the food while it was cooking. Those who preferred the kitchen to be more distant liked to "take breaks" from their work, and wanted to walk through the home to the kitchen for coffee. One woman didn't like the lure of the refrigerator: her desk was only 6 feet away from the kitchen refrigerator. Others mentioned that they did not like the smell of food cooking or the clatter of people making meals, especially when clients were in the home. "It's not very professional," said one woman. Others mentioned that children play and eat in kitchens and that can be distracting if it is close to the workspace.

To some degree the placement of the living room is also ambiguous: approximately 20% say they want it far away, but some want to be able to see into it. Those who want it close by said it would be good for meeting with clients or for "TV breaks."

There is a more consensus for desired adjacency of the bathroom (close by), front entry (close by), bedrooms (distant), TV (distant), "living/private" areas of the home (distant), den (distant), and outdoors (see into).

For those spaces one wants to **see into** there is a sense of openness and long-range view (e.g. outdoors, corridor, living room), a sense of prospect to typically vacant spaces rather than refuge (Kaplan, 1987). These allow visual distancing without looking at people. Such desires may also reflect childcare needs, that is being able to watch one's child playing outside while working inside.

Those rooms wanted **distant** are generally those in which noise is produced (e.g. TV, den, to a certain extent the kitchen), but also those rooms where noise from a workspace could disturb the occupants (e.g. bedrooms). A number of people mentioned that they did not like disturbing sleeping household members with the noise of a printer. On the other hand, one respondent who only worked in the daytime felt it was good to have the bedrooms close to the workspace since no one was in them during the day. But even Solos who have no concern about noise from other household members, mentioned wanting bedrooms distant from workspace (Appendix Q). Whether this preference for the distance of bedrooms to workspace is based on functional concerns (disturbance and noise) or on symbolic reasons (no transition from private/public spaces) is not entirely clear.

Rooms clearly wanted within **close proximity** to the workspace are the bathroom and the front entry. People who had clients and a workspace on the second floor often complained about the difficulties hearing the doorbell or walking up and down stairs to get to the door. A fifth of homeworkers with business meetings in their home want the front entry close by, compared to only 2% of those without (Table 21). The location of kitchen also differs among these groups, with a larger proportion of homeworkers with in-home business meetings desiring the kitchen fairly distant.

Table 21
Desired Location of Front Entry, Kitchen, and Bedroom(s) for
Homeworkers With and Without Business Meetings in Home

	<u><i>With Business Meetings in Home</i></u>	<u><i>Without Business Meetings in Home</i></u>
<u><i>Wanted Close by Workspace</i></u>		
<i>Front Entry</i>	21.1%	2.3%
<i>Kitchen</i>	31.6	38.6
<u><i>Wanted Distant From Workspace</i></u>		
<i>Kitchen</i>	38.6%	18.2%
<i>Bedrooms</i>	31.6	40.9

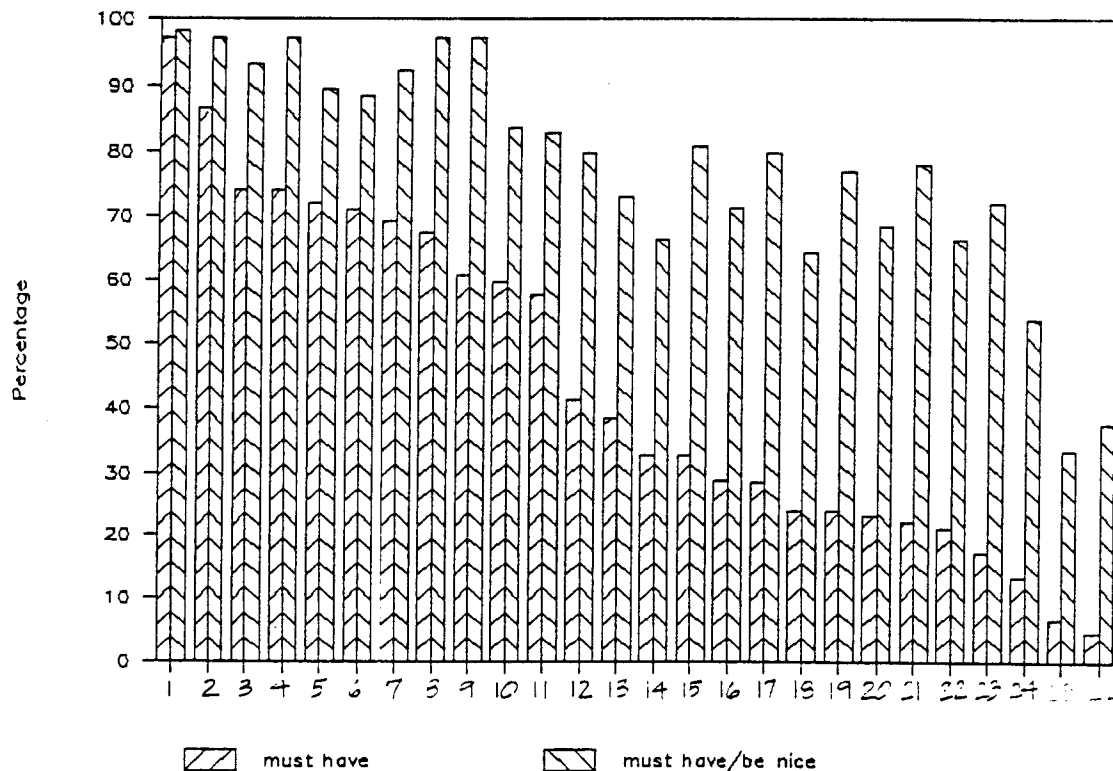
What It Should Include

As mentioned previously, these homeworkers rated a list of physical features for an ideal workspace. For each item they marked whether (1) they must or definitely would include it in an ideal workspace, (2) it would be nice but not necessary, or (3) they would not want it at all. Appendix R lists the percentages for each physical feature.

Figure 12 shows the percentage of homeworkers expressing specific features they must have, and must have or would like (#1 and #2), in an ideal home workspace. A separate room is strongly desired by 86.5% of the respondents, although a complete separate, detached structure is desired by only a small fraction (6.7%). A phone line is essential (97.1%) in the workspace, but a dedicated business line is less so (59.6%).

With different household compositions come different preferences (Appendix R and Table 22). Regardless of household composition, a separate room is highly desired. A workspace which can be shut off from noise is especially important for households with children, but even so for those without anyone else, like Solos. Visual inaccessibility is more prevalent among those with others in the household. A place to exercise in the home is almost twice as much desired by Adults Only households than the other groups.

Figure 12
Percentage Expressing "Must Have" or "Must Have/Be Nice"
for Physical Feature in Ideal Workspace



- | | |
|----------------------------------|-----------------------------------|
| 1: Phone line | 14: No Visual Access to Rooms |
| 2: Separate Room for work | 15: Copy Machine |
| 3: Openable windows | 16: Exercise Place in Home |
| 4: Control over temperature | 17: Acoustical Device of Printer |
| 5: Answering Machine | 18: Yard Space |
| 6: Table or Desk Lamps | 19: View to Rear Yard |
| 7: Shut off from Noise | 20: View to Street |
| 8: Furniture Designed for Office | 21: Dimmer, for Light Control |
| 9: Built-in Storage Space | 22: Direct Entrance from Outside |
| 10: Business Phone Line | 23: Patio or Balcony |
| 11: Ceiling Lighting | 24: Separate Conference Room |
| 12: Adjoining Bathroom | 25: Workspace Detached from House |
| 13: Bulletin or Display Board | 26: Separate Client Waiting Room |

Table 22
*Percentage of Homeworkers Who "Must Have" Select Physical
 Features in an Ideal Workspace, For Different Household Occupancy Types
 (Abbreviated Listing)*

	<u>Solos</u>	<u>Adults Only</u>	<u>Full Nest</u>	<u>Single Parents</u>
<i>Separate Room</i>	81.3%	93.9%	84.0%	80.0%
<i>Detached from</i>				
<i>Home</i>	6.3	3.0	10.0	0.0
<i>No Visual Access</i>				
<i>to Rooms</i>	18.8	33.3	38.0	20.0
<i>Shut Off From</i>				
<i>Noise</i>	50.0	57.6	82.0	80.0
<i>Exercise Space</i>	18.8	42.4	24.0	20.0
<i>n</i>	(16)	(33)	(50)	(5)

Homeworkers who have business meetings at home have different preferences than those without. As seen from Appendix R and Table 23, those with home business meetings are more likely to want physical characteristics which maintain separateness of the office from other areas of the home (e.g. direct outside entrance to workspace, separate conference room, no visual accessibility). An exception is that homeworkers without business meetings at home are more likely to want a detached work structure.

In addition there is a stronger desire for homeworkers with in-home business meetings to want various machines: a dedicated business phone line, an answering machine, a copy machine.

Table 23
*Percentage of Homeworkers Who "Must Have" Physical Features
in Ideal Workspace, For Those With and Without
Business Meetings in the Home*

	<u>With Business Meetings at Home</u>	<u>Without Business Meetings at Home</u>
<i>Direct Entrance from Outside</i>	24.6%	15.9%
<i>Separate Room</i>	87.7	84.1
<i>Detached Structure</i>	3.5	11.4
<i>Separate Conference Room</i>	15.8	11.4
<i>View to Street</i>	19.3	29.5
<i>Openable Windows</i>	82.5	65.9
<i>No Visual Access to Other Rooms</i>	36.8	27.3
<i>Business Phone Line</i>	66.7	52.3
<i>Answering Machine</i>	78.9	65.9
<i>Copy Machine</i>	40.4	84.2

Those with more frequent in-home business meetings express a stronger desire for separation (Table 24).

Table 24
*Percentage of Homeworkers Expressing
Desired Features in Ideal Workspace, By
Average Number of Business Meetings at Home*

	<u>Average # Business Meetings at Home</u>			
	<u><1/mo.</u>	<u>>1/mo, <1/wk</u>	<u>>1/wk, <2/wk</u>	<u>>2/wk</u>
	<u>Must Have</u>	<u>Must Have</u>	<u>Must Have</u>	<u>Must Have</u>
	<u>+ Be Nice</u>	<u>+ Be Nice</u>	<u>+ Be Nice</u>	<u>+ Be Nice</u>
<i>Outside Entrance</i>	54.5	68.8	78.5	87.6
<i>Conference Room</i>	72.7	56.2	64.3	93.7
<i>Client Wait Room</i>	54.5	43.7	50.0	68.7
<i>Adjoin Bathroom</i>	90.9	87.5	85.7	81.2
<i>n</i>	(11)	(16)	(14)	(16)

After homeworkers responded to the list of physical features, we asked them if there were any other features not mentioned that they would like in an ideal workspace. Table 25 and Appendix S lists these.

*Table 25
Percentage of Homeworkers Who Mention
Other Physical Features
As Desirable in Ideal Workspace*

<i>19.2%</i>	<i>Shelving</i>
<i>15.4</i>	<i>Electrical Outlets</i>
<i>14.4</i>	<i>Lighting Control</i>
<i>13.5</i>	<i>Music</i>
<i>11.5</i>	<i>Natural Lighting</i>
<i>11.5</i>	<i>Horizontal Work Surfaces, Desks</i>
<i>10.6</i>	<i>Temperature Control</i>
<i>10.6</i>	<i>Storage</i>
<i>10.6</i>	<i>File Cabinets</i>

THERE'S NO (WORK)PLACE LIKE HOME: DESCRIPTIONS OF HOME WORKSPACES

Typically designers and developers do not include offices in residential designs. Furthermore, zoning ordinances which forbid or restrict home occupations make it difficult for them to incorporate explicit plans for home offices in new developments.

Nevertheless, a few developers are heeding demographic trends and making office space an integral part of the residential design. The "Working Woman's Dream House" currently being developed by the Scarborough Corporation of New Jersey includes an office, as requested by the women they interviewed in developing the design program (Foderaro, 1986). Eaglecrest, a housing development outside Sacramento, was developed with four house plans, each with a home office (Wilson, 1985). Van's Rancho, a small housing development in Lynwood, Illinois, was developed 15 years ago by Peter VanDerNoord. Although individuals hired their own contractor or architect to design their homes, residents were allowed and encouraged to include a detached workspace up to 4000 square feet on the rear of their lots. Architects often incorporate workspaces in artists' residences. One example is the Professional Studio Plus complex in Santa Cruz, a restored mill renovated as a complex of small shops and artisans' studios in what is referred to as a "new live/work space development" (Kelley, 1987). And the design program for a national architectural design competition of "A New American House," sponsored by the Minneapolis College of Art and Design and the National Endowment for the Arts included "an efficient housing unit, not to exceed 1,000 square feet in area, which would function both as the residence and principal professional workplace for at least one of its occupants" (Sherman & Spring, 1984, p. 2). Over 340 designers and architects submitted entries for this competition.

But these developments are few on the landscape. When people begin working at home, they generally do not move to a new residence which better accommodates a work setting, but instead adapt, or adapt to, their current home. A survey of 373 Personal Computing magazine readers who work at home indicate that 61% have an exclusive office space, 9% use the dining or living room, 7% the family room, 5% the den, and 4% the kitchen (Antonoff, 1985). Christensen (1985) found that of the 13 corporate-employed homeworkers she interviewed, all whom were women, 7 had exclusive workspaces, 4 shared their workspaces with their children, and 2 shared their workspaces with their husbands. In her sample, 46% used a spare bedroom, 23% used the basement, 15% used a family room, 8% used the dining room table/basement, and 8% used a separate room off the kitchen.

In interviews with households of 6 professional homeworkers, Horwitz (1985) concluded that homeworkers did not seem particularly concerned about having a private, exclusive workspace. Many located themselves in well-trafficked areas, such as off a hallway or front entrance. Although few had separate rooms, many found "niches" in which to set up their workspace.

McLaughlin (1985), interviewing 91 women homeworkers in clerical and sales occupations, found that they worked more effectively when they had shared rather than exclusive workspace, many of which were storage or unheated areas of the home. The physical boundaries of a separate room led the women to think they would be able to work without distractions or disruptions from children (all homeworkers in her sample had children). This was not the case. Since their expectations were not met, they were consequently dissatisfied. On the other hand, those who placed their workspaces in rooms with other activities had no such expectations or illusions and hence were not disappointed. Almost half of the homeworkers with exclusive workspace did not routinely work in them.

Both in the home and in an office, people work in multiple spaces (Becker, 1986). A quote from one of Horwitz's (1985) homeworkers illustrates this well:

Sometimes I need a huge space, so I work at the dining room table. Or, I was doing a project for a client and they installed a computer in the house--a huge thing-- and all we could do was stick it in the corner of the living room and put a lamp, and a sort of inadequate table for papers, next to it...Sometimes I work at the kitchen table, sometimes I spread out in the living room...Sometimes I'm in my office. What I'm doing determines much more of where I'm going to be rather than the fact that I'm working. When I say I'm going to do some work, I don't necessarily go someplace to do it. If I'm going to type a report, I go upstairs to the typewriter. If it's programming, you don't have a choice of where you sit: You sit at the computer and do it. (p. 170)

The role of spatial boundaries in minimizing role conflict in the home is discussed in the next chapter. But to get a better description of the types of spaces people use for their work, a number of research questions are addressed here:

To what extent are workspaces exclusive or shared? If shared, what other activities occur there? In shared workspaces, what types of spatial separation are there between the workspace and the other areas in the room?

What, if any, activities are displaced to accommodate the workspace?

**What are the physical characteristics of these workspaces?
What type of business equipment do homeworkers have?**

Where in the home are workspaces located?

Where are business meetings held in the home?

What improvements have been made to the workspace?

**Do people have single or multiple work areas in the home?
What do they do in those various areas?**

EXTERIOR CHARACTERISTICS OF THE HOME

Homeworkers lived primarily in single family detached homes (see Table 26). Homes were generally located on residential streets: approximately 80% lived on residential streets, 4% on commercial streets, 7% on rural roads, 7% on a residential/commercial mix, and 2% of another type.

*Table 26
Dwelling Unit Type*

<i>Single Family House</i>	<i>66.3%</i>
<i>Duplex</i>	<i>9.6</i>
<i>High Rise Apartment</i>	<i>8.7</i>
<i>Low Rise Apartment</i>	<i>7.7</i>
<i>Triplex</i>	<i>5.8</i>
<i>Row House</i>	<i>1.0</i>
<i>Converted Barn</i>	<i>1.0</i>

Seven of the homes had an office sign at the entry or lobby; four had other types of business publicity at the entry.

EXCLUSIVE OR SHARED WORKSPACES

The term "Exclusive" refers to workspaces located in a room with no other permanent home activity occurring there. Non-exclusive workspaces are called "Shared" and are subdivided into two types: (1) those with

other infrequent functions occurring in them but for which furnishings or equipment are permanently located in the room (e.g. a guest bedroom); and (2) those with functions occurring on a regular daily basis and for which furnishings and equipment are permanently located in the room (e.g. daycare, dining room where meals are eaten). These are referred to as "Shared, Occasional" and "Shared, Daily" workspaces respectively.

We asked homeworkers to indicate the primary workspace of their homes. All people mentioned that they had one; a few people mentioned they had 2 or 3 primary workspaces. Information about physical characteristics was recorded on all of these. Sometimes people indicated auxiliary workspaces, such as mail rooms, break rooms, sorting rooms. These were not included in primary workspace information. In total there were 111 primary workspaces: seven respondents said they had 2 workspaces, and one person had 3.

The majority of workspaces were Exclusive (see Table 27). This is a noticeably higher percentage than the studies and surveys by McLaughlin (1985), Christensen (1985) and Antonoff (1987). Of the 13 "Shared, Occasional" workrooms, supplementary functions were for guest stay (8), storage (3), guest and storage (1), and other (1). Of the 21 "Shared, Daily" workrooms, supplementary functions were: spouse/other's work (6), sleeping/bedroom (6), recreation and family entertainment (4), dining and eating (3), formal living room activities (2), daycare of non-household children (2) and other functions (1).

Table 27
Number of Workspaces of Exclusive or Shared Nature

<i>Exclusive Workspace</i>	<i>77</i>
<i>Shared with Occasional Functions</i>	<i>13</i>
<i>Shared with Daily Functions</i>	<i>21</i>

We examined the types of boundaries between work and other activities in "Shared" workrooms. Such boundaries might include vertical artificial divisions, horizontal artificial divisions, partial-height artificial divisions (e.g. a step), work furniture and equipment arrangement, or no noticeable physical boundary whatsoever.

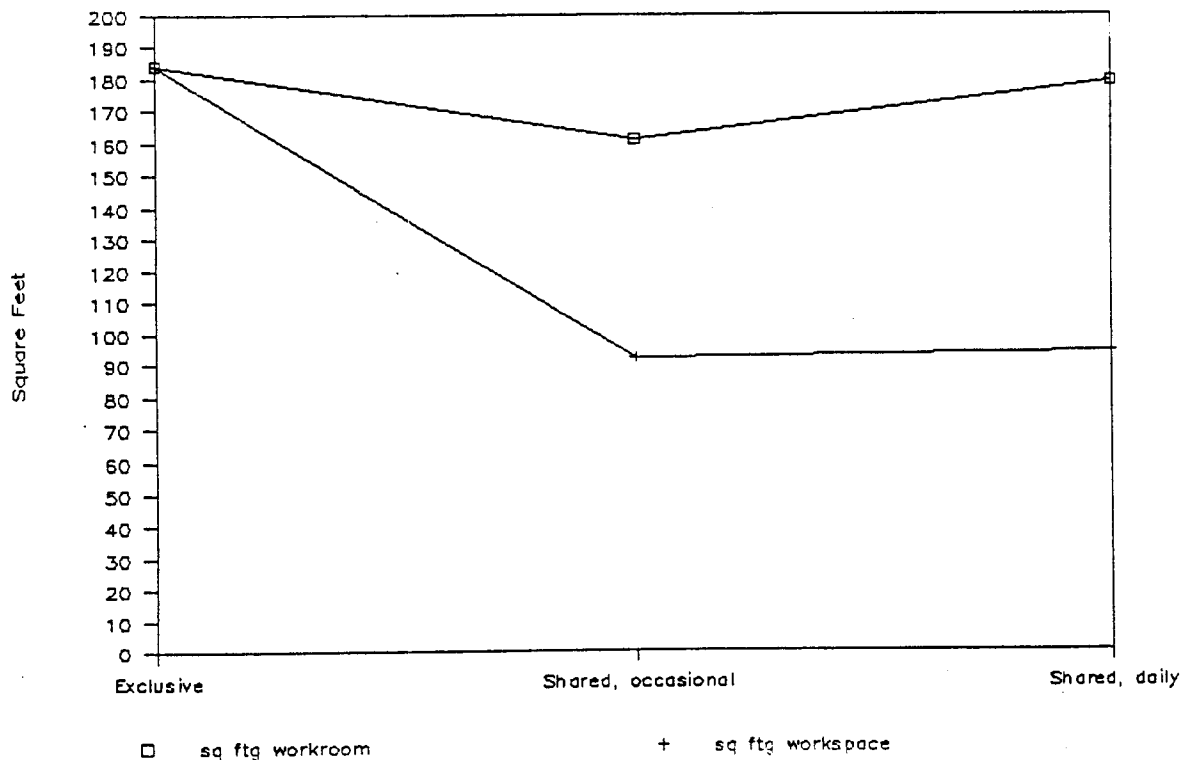
Equipment/furniture layout is the means of distinguishing between areas in the room for "Shared, Occasional" workspaces. For these 82% used

furniture/equipment arrangement distinction, while the remaining had no boundary markers at all. For "Shared, Daily" workspaces, only 40% used the furniture/equipment layout as a boundary mechanism, while 50% had no markers. Five percent had a vertical artificial division and another 5% used multiple boundary markers: horizontal artificial, vertical artificial and partial-height vertical structural divisions together.

PHYSICAL SIZE

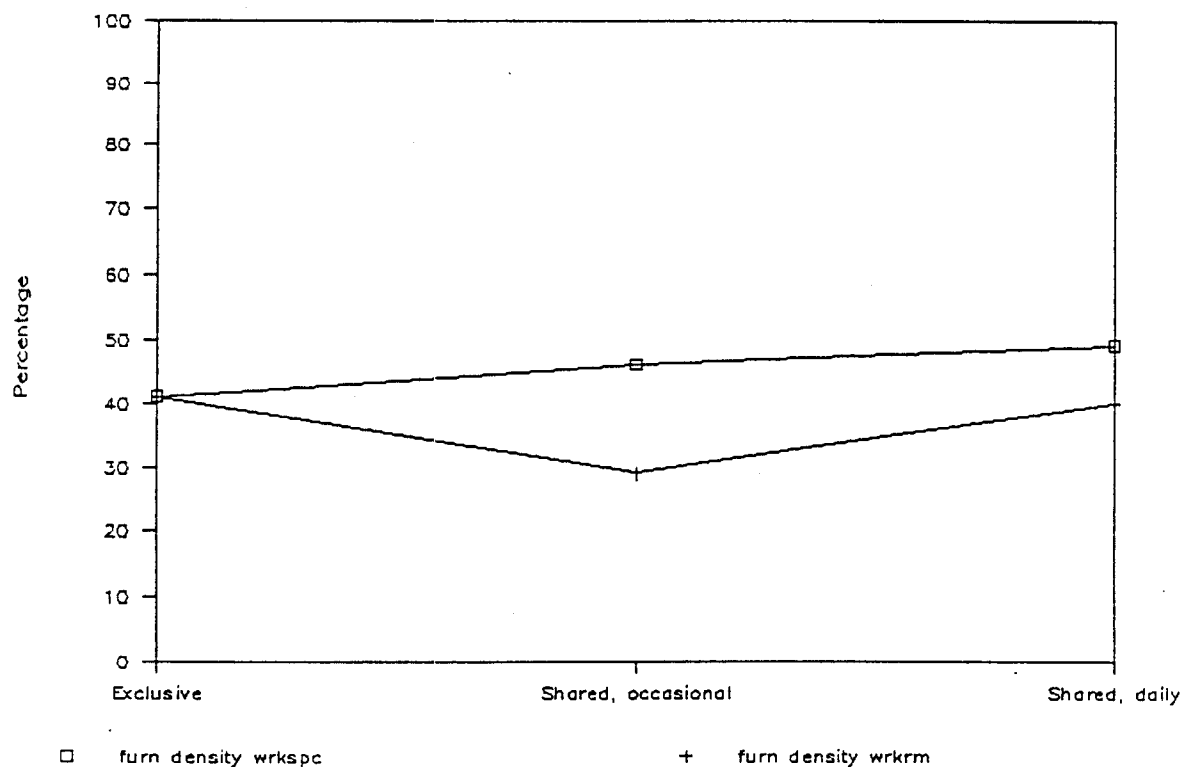
Square footage and furniture density varies by the type of workspace and workroom (Figures 13 and 14). Although the square footage of an Exclusive workroom is only 23 square feet more than that of a "Shared, Occasional" workroom, the actual size of an Exclusive workspace is double that for both Shared workspaces.

Figure 13
Square Footage of Workspace and Workroom



Furniture density (i.e. the percentage of floor space occupied by furniture) increases slightly as one moves from an exclusive workspace to that of shared with daily functions. The big discrepancy between the density of the workroom and workspace for "Shared, Occasional" rooms indicates much unoccupied space in the nonwork areas of the room.

Figure 14
Furniture Density of Workspace and Workroom



FORMER FUNCTIONS OF WORKROOM

Table 28 notes the original designed function of the room used for work. Similar to the findings of Christensen (1985), homeworkers overwhelmingly use converted bedrooms as workspaces. Close to half of

this sample did so. Basements were also used, as well as living rooms and dining rooms. People using living rooms as exclusive workspaces often commented that such rooms were previously infrequently used and their proximity to the front entry was particularly desirable.

Table 28
Original Designed Function of Workroom

<i>Bedroom</i>	<i>52</i>
<i>Basement</i>	<i>14</i>
<i>Living Room</i>	<i>8</i>
<i>Dining Room</i>	<i>8</i>
<i>Rec Room, Family Room</i>	<i>7</i>
<i>Spare Room,</i>	
<i>Unspecified Function</i>	<i>6</i>
<i>Attic</i>	<i>3</i>
<i>Study, Library,</i>	
<i>Office</i>	<i>3</i>
<i>Garage</i>	<i>2</i>
<i>Living-Dining Room</i>	
<i>Combination</i>	<i>1</i>
<i>Sunroom</i>	<i>1</i>
<i>Breezeway, Hallway</i>	<i>1</i>
<i>Entry, Foyer</i>	<i>1</i>
<i>Closet, Storage Room</i>	<i>1</i>
<i>Dressing Room</i>	<i>1</i>
<i>Detached Apartment</i>	<i>1</i>
<i>Other than Above</i>	<i>2</i>

Seventeen of the homeworkers said they displaced other room functions when they moved into their current workroom. The activities displaced (Table 29) are generally those in "public" spaces of the home, such as family rooms, living rooms and dining rooms. One single parent said she converted the family room to her workspace because each of her teenage children had a phone, TV, and stereo in their bedrooms, and did not use the family room often except as a path to the kitchen.

Table 29
Number of Households Reporting
Functions Displaced When Workspace Created

<i>Recreation, Family Entertainment, Play</i>	<i>6</i>
<i>Formal Living Room</i>	<i>3</i>
<i>Dining and Eating</i>	<i>2</i>
<i>Other's Study or Work</i>	<i>2</i>
<i>Garage/Car Storage</i>	<i>1</i>
<i>Sleeping/Master Bedroom</i>	<i>1</i>
<i>Sleeping/Bedroom</i>	<i>1</i>
<i>Kitchen Activities</i>	<i>1</i>
<i>Entry or Foyer</i>	<i>1</i>
<i>Other</i>	<i>2</i>

BUSINESS-RELATED EQUIPMENT

Having a computer and other electrical and electronic equipment means having wiring, cords and cables apparent. Nearly 70% of these homeworkers had such apparent. A video producer had his office in the basement where most of the electrical outlets were located in the ceiling. Cords snaked up from his desk, computer and equipment to the ceiling.

Almost 27% had plants in their workspaces. Almost 17% had locked access to their workspaces from other rooms or corridors of the home. Only 6 people had a special acoustical device for the printer. One-quarter had an answering machine in their office.

These workspaces typically had windows. Eleven percent of the workrooms did not have any.

Since we sought people who used computers in their work, many people have some type of business equipment in their homes. Table 30 shows that although the computer was quite common in the workspace, and people typically owned their own, printers and answering machines were also common. Answering machines were not always located in the workspace, but might be in another room of the house recording messages on the home personal phone line instead of the business one. A number of people mentioned using their answering machines for home calls while they worked to minimize disturbances.

Table 30
Percentage of Ownership of Business Equipment
Located in the Home

	Own	Rent or Lease	Own, Rent by Company	Do Not Have
Computer	74.8%	1.9%	13.6%	9.7%
Printer	73.8	1.9	5.8	18.4
Modem	32.0	2.0	12.0	54.0
Business Phone				
Line	41.0	5.0	12.0	42.0
Answering Machine	68.3	0.0	1.0	30.7
Multiple Phone				
Line	29.2	1.0	3.1	66.7
Copy Machine	17.2	2.0	2.0	78.8
Postal Meter	2.1	1.0	2.1	94.8

Almost half of the respondents have a modem, indicating a potential amount of telecommuting. Journalists and freelance writers quite frequently had this, sending in copy through modem. Most corporate-employed homeworkers using the company's mainframe also had a modem. Others had a modem not only for business use but in order to access services such as electronic mail, bulletin boards, and CompuServe.

Over half of the homeworkers had a private business phone line. Some people mentioned this was necessary for their business and to reduce conflicts between personal and work calls. Other people maintained a business line simply so they could be listed in the Yellow Pages of the phone directory.

Nearly one quarter of the sample had copy machines in their homes. One woman, a free-lance writer, said that if it was a choice between her computer and her copier, the copier would stay. The low cost, higher quality, and smaller sizes of the copy machines on the market today are beginning to make them more accessible to homeworkers.

LOCATION OF WORKSPACE IN THE HOME

The location of the workspace, and the path from the front entry to the workspace, appears critical in how adequately the workspace fits into one's work and one's domestic and leisure pursuits. (The information of the path from front entry is currently being analyzed and will be reported in a later report.)

Approximately 60% of the workspaces were located on the entry level. Only 4.5% were located a split-level higher or lower than the workspace; and 34.5% were located one or more full levels higher or lower.

Connections from rooms/spaces adjacent to the workspace were noted by whether (1) the room/space was in the workroom itself; or whether it was connected by an opening such as a (2) door, (3) open threshold, (4) vertical structural division, or (5) horizontal structural division. A room/space could be adjacent with no opening to it (i.e. a shared wall), but such conditions are not examined here.

Table 31 lists these connections from adjacent rooms/spaces to workspaces. Two homes had daycare spaces within the workroom. In one instance the daycare was operated by the spouse of the homemaker; in another the homemaker operated not only a word processing service but also a daycare center in her home.

*Table 31
Number of Workspaces with Openings
Leading to Other Rooms and Spaces*

	<i>In Room</i>	<i>Through Door</i>	<i>Through Threshold</i>	<i>Through Vertical Str.Div.</i>	<i>Through Horizontal Str. Div.</i>
<i>Bedrooms</i>	6	7			
<i>Guest Bedroom</i>	9				
<i>Kitchen</i>		4	7	1	2
<i>Eating Area</i>	3	4	6	1	3
<i>Auxiliary Workspace</i>	1	5			
<i>Living Room</i>	2	3	5	1	3
<i>Family Room, Den</i>	4	3	1		
<i>Laundry</i>		3	2		
<i>Other's Study or Office</i>	6	1			
<i>Storage</i>	2	6	2	1	
<i>Daycare</i>	2				
<i>Bathroom</i>		10			
<i>Hobby Room</i>		2			
<i>Playroom</i>	1			1	
<i>Vestibule</i>		25	10		1
<i>Corridor</i>		39	2		
<i>Stairs</i>	2	13	5	1	3
<i>Music Room</i>	1				

Many of the workspaces had a door leading from them to bedrooms and bathrooms but predominantly doors led to vestibules or corridors. Those leading to stairways tended to be workspaces located in attics or basements.

A number of workspaces had open thresholds to kitchens and eating areas. But primarily thresholds opened to vestibules. Horizontal structural divisions generally led to eating areas, living rooms, and stairs. These types of openings may be more problematic than doors as there is much less control for the homemaker over accessibility.

BUSINESS MEETINGS IN THE HOME

Approximately 56% of these homeworkers reported they had clients, employees or work partners come to their homes. When this happens, meetings and work are generally held in the workspace (Table 32), but dining room tables and living rooms are also common meeting spaces. A few people even have a separate designated conference/meeting room in their homes.

*Table 32
Where Business Meetings Occur in the Home*

<i>Workspace</i>	<i>33</i>
<i>Dining Room, Table</i>	<i>15</i>
<i>Living Room</i>	<i>14</i>
<i>Kitchen, Table</i>	<i>5</i>
<i>Conference, Meeting Room</i>	<i>4</i>
<i>Basement (stored equip- ment)</i>	<i>3</i>
<i>Other than Above</i>	<i>4</i>

Generally business visitors use the front (i.e. formal) door or office door if there is one. People with separate office doors mention that new clients typically go to the front door their first time at the home, even if they must pass the office entry to get to the front door. One computer hardware consultant said when he knows a client is coming he will open the office door and put out his business sign to let the client know which door to use.

IMPROVEMENTS TO THE WORKSPACE

Most respondents made some improvements to their workspaces since they started working at home. Table 33 gives the type of improvements homeworkers made. Only a fraction of renters (6.5%) reported that they were not allowed to make desired improvements. These typically were flooring, wallpaper, and paint improvements.

*Table 33
Percentage of Homeworkers Making Specified Improvements
to the Workspace Since Working at Home*

<i>Paint</i>	<i>48.5%</i>
<i>Wallpaper</i>	<i>11.0</i>
<i>Covered Storage</i>	
<i>Added</i>	<i>40.4</i>
<i>Shelves Added</i>	<i>71.8</i>
<i>Walls or Partitions</i>	
<i>Added</i>	<i>18.8</i>
<i>Fabric Separator</i>	<i>4.2</i>
<i>Lighting Modified</i>	
<i>or Added</i>	<i>70.3</i>
<i>Flooring Modified</i>	
<i>or Added</i>	<i>38.6</i>
<i>Furniture Added</i>	<i>86.5</i>

We asked homeworkers to specify the furniture they added and to list any other improvements they made to their workspaces which were not listed. Appendix T lists these.

MULTIPLE WORKSPACES IN THE HOME

Besides the primary workspaces and auxiliary workspaces such as break rooms and mail rooms, homeworkers use other spaces in the home for their work. These are not generally defined by them as workspaces. They may be only occasionally used for work. But that does not minimize their importance. One writer mentioned that it was essential for him to pace around the house thinking while he worked on a novel. When homeworkers mentioned using dining or kitchen tables for their work, I would query whether they would like a similar large, flat working surface in their workspaces. Generally they said they would prefer getting out of the workspace to do some work and not do everything in one room.

Seventy-two percent of the respondents used other spaces in their homes for work. The most frequent locations for this were dining rooms or dining room tables, living rooms (some specifying the sofas or the floor), and kitchens or kitchen tables (Table 34). Some people mention using the patio or yard for their work. But many more mentioned they would like to work outdoors but are unable to use a computer there. One Chicago woman said that in the summer she would switch to writing long-hand instead of keying in drafts on the computer so that she could work outside when it was sunny.

*Table 34
Other Areas of the Home Used for Work*

<i>Dining Room, Table</i>	<i>31</i>
<i>Living Room</i>	<i>23</i>
<i>Kitchen, Table</i>	<i>20</i>
<i>Bedroom or Bed</i>	<i>10</i>
<i>Auxiliary Work Area</i>	<i>8</i>
<i>Outdoors, Porch, Deck</i>	<i>6</i>
<i>Basement</i>	<i>5</i>
<i>Everywhere in Home</i>	<i>3</i>
<i>Den, Family Room, Rec Room</i>	<i>2</i>
<i>Storage Space in Other Rooms</i>	<i>2</i>
<i>Phones in Other Rooms</i>	<i>1</i>
<i>Bathroom, Dressing Room</i>	<i>1</i>
<i>Attic</i>	<i>1</i>
<i>Other than Above</i>	<i>3</i>

A number of people mention using the bedroom or bed. This reflected using these spaces for storage and also as quiet places to lay down to read or edit. Only one person mentioned using phones in other rooms, but the percentage is probably much higher. People most likely do so but did not think of it when queried.

The type of work they do in these workspaces is extensive (see Appendix U). The most commonly reported activities are listed in Table 35. Layout of work materials and meetings are activities which generally require large amounts of space, both for people and material. Proofreading, editing, reading, and conducting research are rather solitary activities which do not take up much space. But they are also activities which homeworkers can do away from the computer when they want to get out of their workspaces.

Table 35
Most Frequently Reported Work Activities
Performed in Other Areas of the Home

<i>Layout materials</i>	<i>27</i>
<i>Meetings</i>	<i>17</i>
<i>Proofreading, Editing</i>	<i>13</i>
<i>Research, Reading,</i>	
<i> Taking Notes</i>	<i>13</i>
<i>Storage</i>	<i>12</i>
<i>Phone</i>	<i>8</i>
<i>Writing</i>	<i>6</i>

SEGREGATED OR CEMENTED DOMAINS? MANAGING ROLE OVERLAP

The settings in which we live and work are instrumental in constructing the images we have of ourselves and those conveyed to others, of our expected roles, and our social positions. Through the institutions and people we interact with, and the spaces we inhabit, we develop a social nature and image (Goffman, 1971; Mead, 1934). The socio-spatial setting influences this development in either supporting or hindering expected roles, identification, and status.

Early research work examined these influences within singular, and assumedly unconnected, settings (e.g. the world of work, the public realm, the home). But later critics (e.g. Kanter, 1977a) lashed out at this myopic perspective and argued for dispelling "the myth" of separate worlds. Marxist feminists contend that the separation of work from leisure, and production from consumption, exists for men only (Kelly, 1979). But empirical evidence indicates this assumed segmentation of spheres of experience is nonexistent for both men and women (Dubin, 1956; Kabanoff, 1980; Kanter, 1977a).

An "interconnected domains" perspective must consider the concerns of multiple roles and role conflict, that is the simultaneous occurrence of incompatible demands and expectations from different sources. Role conflict is associated with stress in formal organizations (Van Sell, Brief & Schuler, 1981; Biddle, 1986) and personal malintegration in the workplace, such as poorer job performance. A number of empirical studies (Lopata, 1980) suggest that conflicts between homemaking and occupational roles for women produce stress. However, a national survey reported by Pleck, Staines and Lang (1980) indicates that work-family conflict is evident only among a minority of workers, although heightened among parents. Those workers who do express conflicts, however, also express lower satisfaction with their jobs, their family life, and with life in general.

Maintaining multiple and contradictory roles does not necessarily, in and of itself, lead to stress and discontent. Sieber (1974) argues that people sometimes prefer to assume multiple roles even though it may result in conflict. There is even some research showing weak yet positive relationship between role conflict and satisfaction among mothers who are college students (Sales, Shore & Bolitho, 1980).

The concepts of roles and role settings are important in understanding how professional homeworkers maintain multiple and sometimes contradictory activities and expectations in one place. Biddle (1986) suggests a triad of

concepts encompass what we mean by 'role': characteristic behaviors, assumed identities, and social expectations of those behaviors. Bronfenbrenner (1979) characterizes role as a "set of activities and relations expected of a person occupying a particular position in society, and of others, in relation to that person" (p. 85). Roles are usually identified by labels designating social positions. The concept of role integrates activities and relationships in a context of societal expectations and ideology.

Some argue that roles and role relationships are generally place-specific (Becker, 1986; Goffman, 1959). Social groups are often defined by their physical isolation in specific locations, e.g. nuns in convents, cooks in restaurant kitchens. Places and even furniture are sometimes tied not to a particular person but to a role (Ashcraft & Schefflen, 1976). The Oval Office, the "ultimate" home office, belongs not to Ronald Reagan (person) but to the President of the United States (role). Certain roles are difficult to maintain without the appropriate "stages" for them.

These "stages" or role settings involve the "scenery"--i.e. furniture, decor, physical layout--a person needs to perform the role (Duffy, 1969). These role settings are territories, physical places which define a situation and which are identified with individuals or groups and subject to their control (Lennard & Lennard, 1977). They are means of achieving privacy and identity, controlling information and access (Altman, 1975).

To be effective, territories must be clearly marked and people must share the same system of marking and observing boundaries. In the 1600s design innovations of independent access began to provide for domestic territoriality. Rooms were situated off hallways with doors as connectors. No longer did rooms function as circulation paths from one part of the home to another. One now needed a justification to enter a room (Evans, 1978).

A new sense of domestic boundaries, territory and privacy occurred in the sixteenth century in Western cultures (Shorter, 1975). The first rooms from which one could retreat from public view were called 'privacies' (Rybczynski, 1986). Domestic architecture through the 1900s continued to atomize, individualize, and separate (Evans, 1978). But the mid-twentieth century witnessed residential designs (e.g. the suburban ranch home) which minimized the use of walls as boundaries between spaces or center halls or hallways as connectors between rooms (Lennard & Lennard, 1977).

Goffman (1959), using dramaturgical metaphors, suggests that individuals play multiple roles, but each on a different social stage, with its own set of props. But the reality of these highly specified and demarcated settings are hard to sustain in today's world where efforts are being made to fuse in space traditionally-distinct roles, e.g. conjugal visits for prisoners, hospices, daycare centers in office buildings (Matthiessen, 1986), and professional homework. The merging of physical spaces coincides with the merging of social roles.

Often these actions of merging physical spaces occur without serious thought to consequences. Are boundaries and territories in the home still important? What are the consequences of their diminishment, especially for those who are in the home all day? From her study on homeworkers, McLaughlin (1984) concluded that "supportive physical environment for women engaged in home-based work appears to be one which is located in an easily accessible area of the home, but which allows the worker to limit the access of others, including other family members" (p. 90).

Boundaries are the skin of territories. They define a territory's outer limit of. They can be spatially defined by their thickness, imperviousness (e.g. wall vs. edge of a pool of light), or distance (Lennard & Lennard, 1977). They can also be temporally (e.g. scheduling of activities), psychologically and behaviorally defined (Altman, 1975). Boundaries function to define social situations to the extent information and interaction can be restricted by physical access (Meyrowitz, 1985).

Professional homework provides an opportunity to explore the fluidity and use of boundary mechanisms in the home where multiple roles, sometimes conflicting, are maintained in one place. In exploring these issues, we consider:

To what extent do domestic and work roles overlap in the home? To what extent is this disruptive?

To what extent have conflicts, satisfaction with home and work, perceived stress, and relationships changed since working at home?

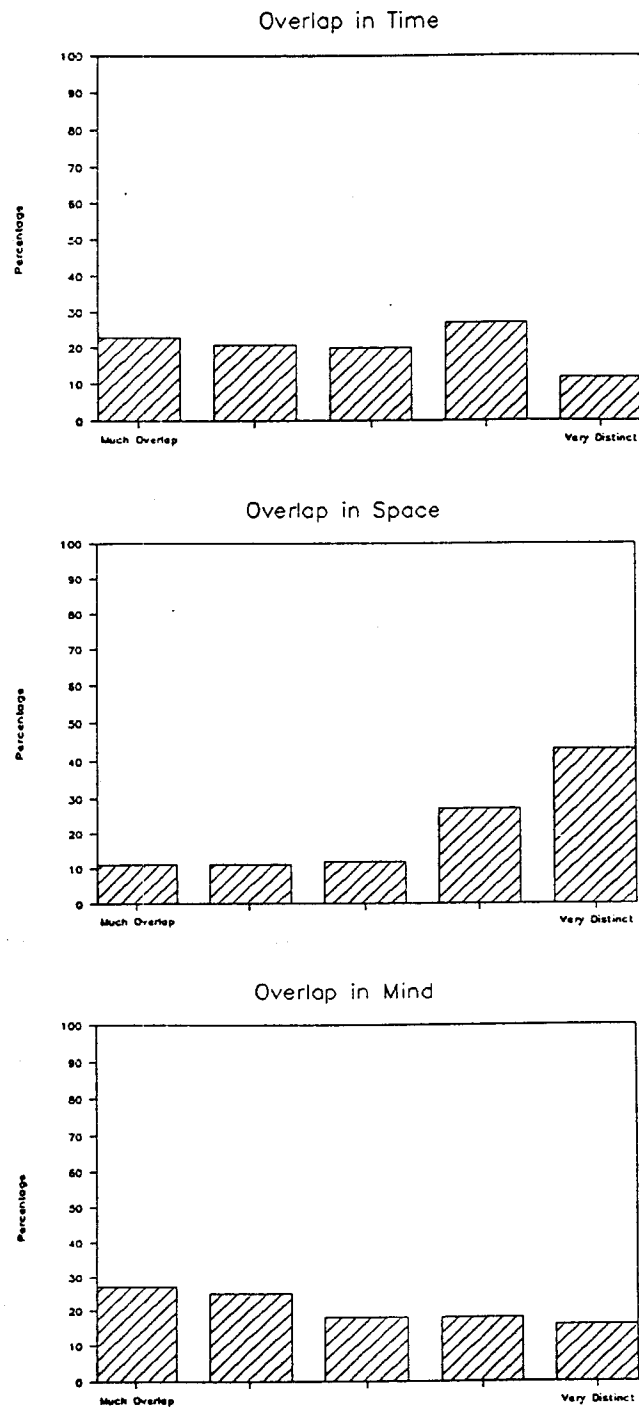
Are boundaries constructed between domestic and work activities to minimize overlap and conflicts? If so, how are they defined: spatially, temporally, behaviorally, psychologically, structurally?

SPATIAL, TEMPORAL, AND MENTAL OVERLAP OF MULTIPLE ROLES

Homeworkers indicated on 5-point scales the degree of separation or overlap between work and domestic roles on 3 dimensions: in time, in space, and in their minds. People were quite thoughtful about answering these scaled items, spending time to reflect on their lives.

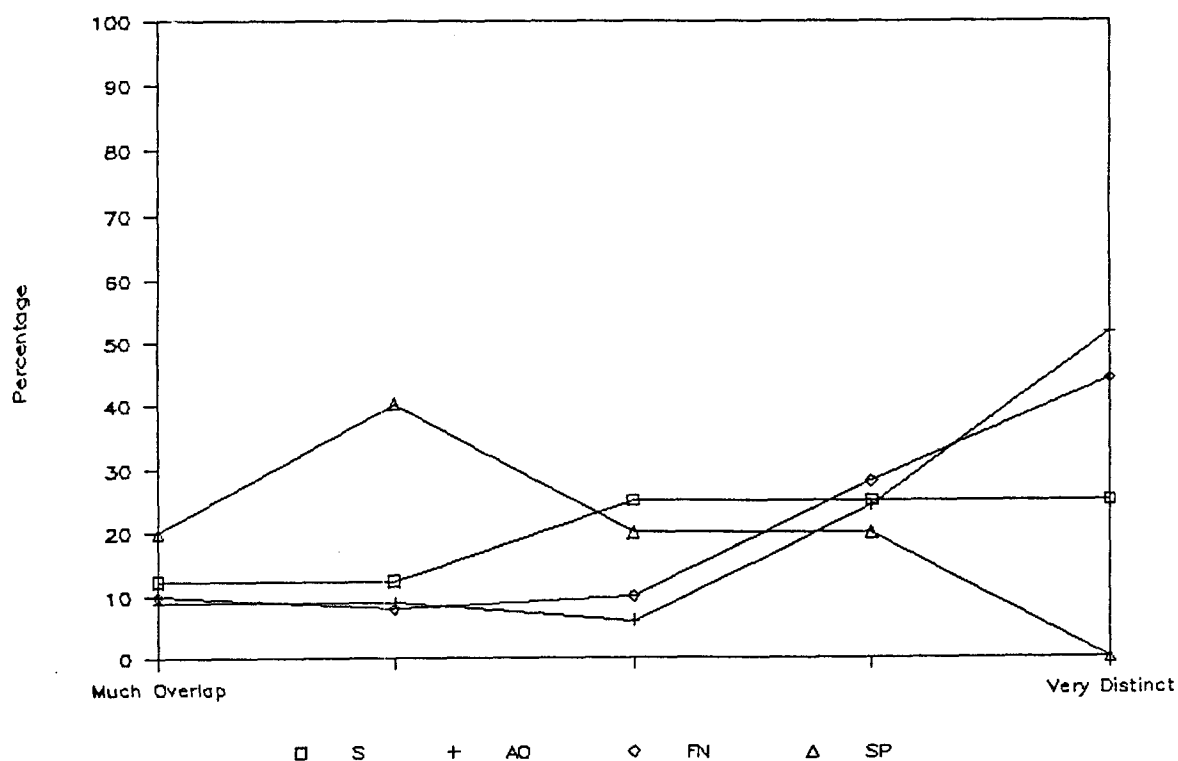
Figure 15 indicates the distribution of responses to these questions. There is much less overlap spatially than temporally or mentally. In addition, there was considerable correlation among these, indicating that they may not be mutually exclusive (Time X Space, $\rho = .40$; Time X Mind, $\rho = .52$; Space X Mind, $\rho = .39$).

Figure 15
Reported Overlap of Domestic and Work Roles,
Temporally, Spatially, Mentally



There were no differences between the different household occupancy groups in time and mental overlap, but there were differences for space: (Kruskal-Wallis $H=8.62$, $p<.05$), with solos expressing more overlap (mean ranks: Solos = 42.75, AO = 58.21, FN = 54.77, SP = 23.3). This is illustrated in Figure 16. Surprisingly, the average number of hours worked at home made no difference in overlap.

*Figure 16
Reported Spatial Overlap of Domestic and Work Roles,
for Different Household Occupancy Types*



The degree of spatial overlap was marginally related to the degree of workspace exclusivity (Kruskal-Wallis $H=4.8592$, $p = .09$), with those having an exclusive or shared/occasional workspace feeling less overlap than those with shared/regular workspace (mean ranks: 55.38 for exclusive; 55.36 for shared/occasional; 39.86 for shared/regular).

We investigated further these overlaps by asking homeworkers which activities occur in the workspace, and at the same time they are working (Table 36). Although family entertainment, non-business related reading, and study/homework occur in many workspaces, they do not necessarily occur at the same time as the person working. (We asked only if these activities ever occurred, not the frequency with which they occurred.) Over one-third of homeworkers said family entertainment (generally this was music or recreational use of the computer) occurred in the workspace, but less than one-quarter report it happening at the same time as they are working. Eating meals (generally a snack taken by the homeworker) may occur at the same time in the same space, as well as circulation, family entertainment, and study/homework. Approximately 10% of the homeworkers report children's play in the workspace. Households without children also reported this, especially when grandchildren were dropped off for babysitting.

Table 36
Percentage of Households Reporting
Other Activities Occurring in Workspace

	<i>Occur in Workspace</i>	<i>Occur in Workspace While Working</i>
<i>Food Preparation</i>	2.9%	1.9%
<i>Entertaining Guests</i>	21.4	9.7
<i>Eating Meals</i>	29.1	20.6
<i>Family Entertainment</i>	35.6	17.8
<i>Sleeping</i>	21.8	7.9
<i>Laundry</i>	6.9	3.9
<i>Through-Circulation</i>	25.5	18.4
<i>Children's Play</i>	17.6	9.7
<i>Study, Homework</i>	36.3	15.7
<i>Non-Business Related Reading</i>	38.6	13.9
<i>Others Activities Mentioned:</i>		
<i>Pay Household Bills</i>		
<i>Personal Phone Calls</i>		
<i>Spouse's Work</i>		
<i>Work for Professional or Civic Organi- zations</i>		

Further exploring specific aspects of role overlap, we asked who supervised their young children while they were working. For this sample, homeworkers did not overwhelmingly supervise their children while working (Table 37). Only 17% report they did so exclusively; an additional 26% did so in conjunction with either a sitter or spouse/companion. There were no gender differences on this response.

*Table 37
Who Takes Care of Children While Working*

<i>Babysitter/Daycare</i>	25.7%
<i>Spouse of Companion</i>	22.9
<i>Self</i>	17.0
<i>Self and Spouse/ Companion</i>	20.0
<i>Self and Babysitter</i>	5.7
<i>Spouse/Companion and Babysitter</i>	5.7
<i>Other Than Above</i>	2.9

Homeworkers frequently emphasized that childcare and work activities were incompatible, confirming similar findings by Olson (1983a), Christensen (1985), and McLaughlin (1981). Whenever possible, they worked while their children could be cared for by others, while children were sleeping or when they were in school. Quite a number had in-home babysitters. Two homeworkers had live-in sitters who exchanged childcare services for room and board. Thus the low percentages of "Self" reported in Table 37 likely reflects an intentional strategy not to work while children need looking after.

We asked if neighbors made requests of them while they were working. The frequency was quite low and may reflect that many neighbors are not home at this time. Approximately 65% said neighbors never made requests, 15% said rarely, 15% reported sometimes neighbors did, and 5% said often. The types of favors generally asked by neighbors are listed in Table 38. Accepting delivery parcels and vacation home care are typical, and expected, requests from neighbors. But a large number of requests were also for childcare. This was often of an immediate nature: for example, a neighbor had a sick child and could not take the day off work to stay with the child. Some people mentioned neighbors requesting business favors. It was not uncommon for me to interview professional homeworkers who lived only a block away from, but unknown to, each other. But one interesting situation was a four-block area in Sacramento where 4 professional homeworkers resided. They knew of each other and used (and paid for) each other's services.

Table 38
Type of Favors Asked by Neighbors While Working

<i>Accepting parcels for delivery</i>	<i>11</i>
<i>Babysitting and childcare</i>	<i>10</i>
<i>Vacation-related watch and home care</i>	<i>6</i>
<i>Business favors, unpaid</i>	<i>3</i>
<i>Run errands, give rides</i>	<i>3</i>
<i>Business favors, paid</i>	<i>2</i>
<i>Let people in home when gone</i>	<i>1</i>
<i>Borrow objects</i>	<i>1</i>
<i>Outdoor work</i>	<i>1</i>
<i>Other than above</i>	<i>3</i>

We explored the extent of disruptions of overlapping activities in two ways. One, we gave them a list of activities and asked them to what extent these activities occurred in their homes while working (Appendix V) and then the extent to which they were distracting. Two, we asked them for examples of domestic/personal and work activity interferences, and then had them assess how disruptive those interferences were.

Not many activities were disturbing to homeworkers (Table 39), phone ringing being the highest reported one.

Table 39
Percentage of Homeworkers Reporting Level of Distraction of Various Home Activities While Working

<i>Distractions from:</i>	<i>Often or Very Often</i>	<i>Some</i>	<i>Hardly Ever or Never</i>
<i>Sight or sound of TV</i>	<i>4%</i>	<i>18%</i>	<i>78%</i>
<i>Music</i>	<i>4</i>	<i>15</i>	<i>81</i>
<i>Messy state of house</i>	<i>8</i>	<i>41</i>	<i>51</i>
<i>View of refrigerator</i>	<i>1</i>	<i>5</i>	<i>94</i>
<i>View of outdoors</i>	<i>1</i>	<i>18</i>	<i>81</i>
<i>Dishwasher noise</i>	<i>2</i>	<i>7</i>	<i>91</i>
<i>Phone ringing</i>	<i>21</i>	<i>51</i>	<i>28</i>
<i>Visitors at front door</i>	<i>2</i>	<i>42</i>	<i>56</i>
<i>Children</i>	<i>10</i>	<i>33</i>	<i>57</i>
<i>Other household members</i>	<i>5</i>	<i>34</i>	<i>61</i>

However, when we examine these distractions by the extent to which domestic and work roles overlap, we find that when roles overlap spatially

and mentally, there are a higher number of these reported distractions ($F[1,79]=4.32, p<.05$ for spatial; $F[1,59]=7.85, p<.01$ for temporal). These were calculated by comparing those who marked extreme overlap (#1) to those indicating very distinct (#4 and #5) on the number of distractions rated 'often' or 'very often.' The mean number of distractions for high spatial overlap was .9 compared to .4 for spatial distinction; for high mental overlap, the mean was again .9 compared to .2 for mental distinction.

Appendix BB lists these for each type of distraction. Those with spatial overlap report more distractions from views: of house clutter and the refrigerator particularly. People expressing much overlap mentally in domestic and work roles report higher distractions from household members and children.

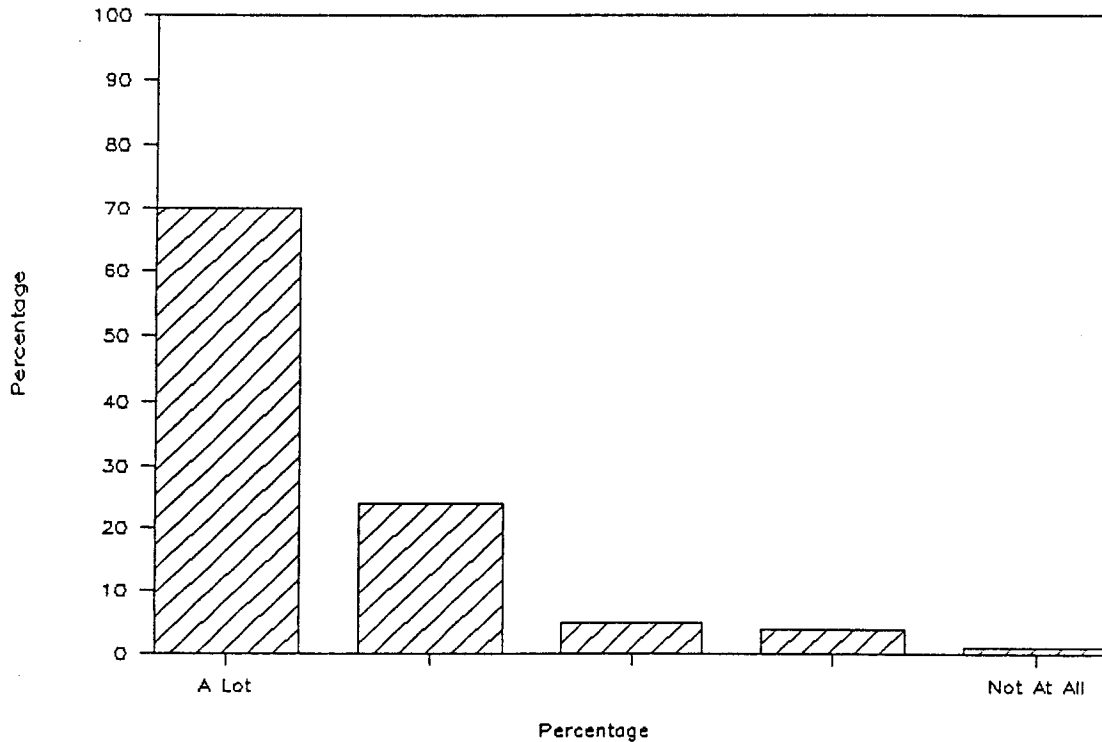
Homeworkers also gave us their own examples of when domestic/personal and work activities interfered with each other. Appendix W lists these. The range of responses is enormous. Instances mentioned frequently involve child-related interruptions to on-going work (such as children demanding immediate attention, driving children to school or other activities, children wanting to use the computer, noise, and talking). Other household members and relatives outside the household make demands on the homeworker while s/he is working by stopping by to talk, or even making requests for childcare. Homeworkers mentioned relatives dropping in and expecting to be entertained. Such incidents infer that other household members, neighbors, and relatives "don't take my work seriously," as they put it. As one woman maintained, "They wouldn't ask me to babysit their kid at the office. But they do if I am working here [at home]."

Business calls "after work" or during meals were frequent sources of reported interference. A number of people mentioned being tempted to work at all hours, although the reverse situation was also true when people were working yet tempted to play with their children, go outside in the sun, or do housework. Although these conflicts occur, many people do not consider them terribly disruptive: mean of 3 on a 5-point scale. Many said the first year interruptions were frequent and disruptive until adjustments were made.

REPORTED CONFLICTS, STRESS AND SATISFACTION OF LIVING AND WORKING AT HOME

By and large, this sample of homeworkers quite enjoyed working at home (Figure 17). There were no differences in enjoyment due to household or personal income. This high positive response may reflect a sample bias. People who previously worked at home but did not enjoy it may have returned to office work and hence are not represented in the sample. Another possibility is that people who did not enjoy working at home may have declined to be interviewed.

Figure 17
Percentage of Homeworkers Reporting Degree of
Enjoyment of Working at Home



We asked other questions regarding changes in the quality and amount of communication in relationships; job and home satisfaction and stress; conflicts between home and work; and the quality of housekeeping and maintenance. All of these are reported in Appendix X and discussed below.

Reported communication and quality of relationships with children and other household members were generally positive. For example, 60% of those with children said that the quality of their relationship with children had increased since working at home. However, this was less so with friends. Half of the homeworkers said that the amount of communication with friends had stayed the same while 32% said the amount had decreased somewhat or a lot (compare this to 8% reported decrease in amount of communication with other household members). Fourteen percent said communication with friends had increased somewhat or a lot. This differs with the number of hours worked per week; those working more hours reporting a decreased amount of communication with friends. However, only 16% of the homeworkers reported any decreased quality of friendship, and over one-quarter reported some increased quality (Table 40).

Table 40
Percentage of Homeworkers
Reporting Change in Communication and Quality
of Relationship With Friends

	<i>Communication</i>	<i>Quality of Relationship</i>
<i>Increased A Lot</i>	3.0%	4.0%
<i>Increased Some</i>	10.9	22.8
<i>Stayed the Same</i>	53.5	57.4
<i>Decreased Some</i>	21.8	15.8
<i>Decreased A Lot</i>	10.9	0.0

Approximately 87% report some increase in job satisfaction since working at home. What aspects of working at home leads to this increase is unclear. It may be a result of greater job autonomy which is a characteristic associated with work satisfaction and very prevalent in this sample (Chapter 4). Thirty percent felt job stress had at least somewhat increased while 50% felt it had decreased at least somewhat; only 20% felt it had stayed the same (Table 41).

Table 41
Percentage of Homeworkers
Reporting Change in Stress and Satisfaction
with Job Since Working at Home

	<i>Satisfaction</i>	<i>Stress</i>
<i>Increased A Lot</i>	52.9%	6.0%
<i>Increased Somewhat</i>	34.3	24.0
<i>Stayed the Same</i>	10.8	20.0
<i>Decreased Somewhat</i>	2.0	29.0
<i>Decreased A Lot</i>	0.0	21.0

Increased job satisfaction was clearly related to household structure. Those with weaker organizational and control characteristics reported a greater decrease in job satisfaction since working at home (see Appendix Y). Stress was related to the number of work hours at home, with decreasing stress related to less hours of work (Kruskal-Wallis $H=8.43$, $p<.05$; mean rank of those working 20 hours or less, 52.2; mean rank of those working more than 60, 35.89).

But such high increases in job satisfaction and decreases in job stress are not comparable to responses regarding satisfaction and stress with domestic life. Compared to what they reported about their job, a greater percentage felt that changes did not occur in satisfaction or stress with domestic life since working at home. Approximately 56% felt satisfaction had increased somewhat while 5% felt it had decreased somewhat. Approximately 21% reported some increased stress of domestic life since working at home, while 36% reported some decreased stress. There were no differences for household occupancy types.

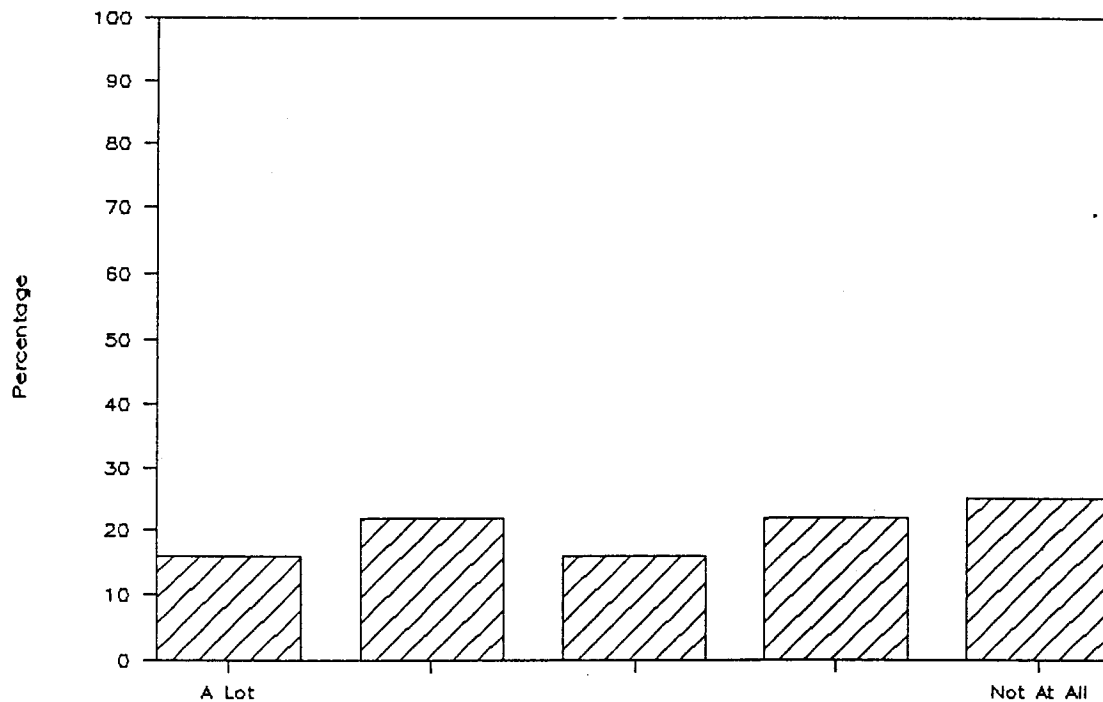
Approximately 36% reported some increased conflicts between home and work activities while a similar percentage, 37%, report some decreased conflict. Approximately 38% report some increased conflict with time and only 26% report some increased conflict with space. These differed according to household occupancy (Appendix Y), with Solos reporting less conflict, overall and temporally (Kruskal-Wallis $H=6.75$, $p<.08$; $H=8.61$, $p<.05$) than did adults only, full nest and single parent households.

MANAGING CONFLICT, MAINTAINING BOUNDARIES

Adjustments to working at home come in different forms, both positive and negative. Figure 18 shows that there is a fairly even distribution among homeworkers making adjustments. These adjustments are not particularly negative. A number of people said that although they did make adjustments, they were generally positive ones. Many say that adjustments occur during the first year and decrease thereafter.

Many homeworkers in Solo households mention that the biggest adjustment is to the lack of social and professional contact. Another problem is household members making adjustments. One woman kept a diary the first few months she started working at home. She recalled that when she first started, often she would be in her workroom working when the family phone would ring in the kitchen. Her husband and children would be in the living room watching television. But still they expected her to stop working and answer the phone! It took them awhile, she said, to make adjustments.

Figure 18
Percentage of Homeworkers Reporting
Extent of Adjusting to Working at Home



More important is the type of adjustments people make: temporal, spatial, behavioral or social structural (i.e. within the household). Information here is derived from 3 interview questions: whether or not people make any specified arrangements to minimize conflicts between work and domestic/leisure activities; whether or not, since working at home, the homeworker or household members assume new household responsibilities or tasks, and what those are; and any special behaviors or "rituals" homeworkers do to make the transition to starting work for the day. A final type of adjustment is of a psychic nature--the changed meaning of one's home--which is discussed in the next chapter.

TEMPORAL ADJUSTMENTS: Rescheduling domestic and work activities occurs for most people as a way of minimizing or coping with conflicts. More than a quarter of the homeworkers have set times when people can call them or talk to them although several of these people say that others do not necessarily adhere to this. One frequently mentioned way of doing this is to have the answering machine record the calls even though the homeworker is at home working. Some even unplug the phone.

Table 42
Percentage of Respondents Reporting
Temporal Means of Minimizing Conflicts
Between Domestic, Leisure, and Work Activities

<i>Set times when people can call</i>	<i>27.9%</i>
<i>Set times when people can talk</i>	<i>31.1%</i>
<i>Reschedule domestic activities</i>	<i>59.6%</i>
<i>Reschedule work activities</i>	<i>53.9%</i>

Home activities that are frequently mentioned as being rescheduled include meals and when the television and stereo/radio can be on. Some people do not see this rescheduling in a negative sense, but actually enjoy this type of flexibility in their lives.

Rescheduling work activities often are made to accommodate daycare, nap times, or the family's sleeping schedule. Again, sometimes this rescheduling is viewed positively. One father was glad to be able to change his work schedule hours to accommodate his son's new school schedule so that when they are both at home he will not be working.

SPATIAL ADJUSTMENTS: The most frequently mentioned spatial adjustment to minimizing conflicts is having a distinct work space although this does not mean a separate, exclusive room for work (Table 43). Interestingly, over half of the homeworkers even have restricted access to spaces in the home for other household members. Typically this is the workspace but it can include other areas of the home where business meetings may occur, or other areas of the home near the workspace. For example, one father did not allow his children to play in the corridor next to his office while he was working. Many mentioned restricting access only when clients were over.

Restricting access to particular spaces in the home is twice as common as restricting access to the home itself, although one-fifth of the homeworkers with other household members have done so. One husband and wife household both shared the work room and also had outside offices. They

frequently sat down and figured out a schedule to make sure they would not be in the home at the same time. Others restrict their children from bringing their friends over to the home when working.

Table 43
Percentage of Respondents Reporting
Spatial Means of Minimizing Conflicts
Between Domestic, Leisure and Work Activities

<i>Reschedule When Other Household</i>	
<i>Members Can be at Home</i>	<i>21.8%*</i>
<i>Maintain a Distinct Workspace</i>	<i>90.3</i>
<i>Restrict Household Members'</i>	
<i>Access to Certain Rooms</i>	<i>57.6*</i>

**of those with other household members*

BEHAVIORAL ADJUSTMENTS: Another adjustment is eliminating activities or starting new ones as a means to reduce conflict (see Table 44 below).

Table 44
Percentage of Respondents Reporting
Behavioral Means of Minimizing Conflicts
Between Domestic, Leisure and Work Activities

<i>Eliminate Certain Activities</i>	<i>34.3%</i>
<i>Start New Activities</i>	<i>36.3</i>

The type of activities eliminated are listed in Table 45. Some people do not entertain any longer because the house is cluttered with work material. This is often mentioned in reference to the dining room table. It becomes a repository of work material, and rather than clear it off for an evening dinner with friends and then redeposit the work material, it is easier to skip entertaining at home.

Table 45
*Number of People Reporting Types of Activities
 Eliminated to Minimize Conflicts Between
 Domestic, Leisure and Work Activities*

<i>Entertaining at home</i>	6
<i>Sports or exercise outside home</i>	5
<i>Socializing outside home</i>	4
<i>Housework or house maintenance</i>	3
<i>Art or craft work</i>	2
<i>Watching TV</i>	2
<i>General leisure activities</i>	1
<i>Garden or yard work</i>	1
<i>Civic or volunteer activities</i>	1
<i>Children unable to use computer</i>	1
<i>Home renovation</i>	1
<i>Driving others around</i>	1
<i>Other than above</i>	4

Those new activities which homeworkers began (Table 46) include a high number of exercise activities, both indoor and outdoor. Perhaps exercise is not eliminated but that a new location for it is maintained. One woman said she started bicycling in her neighborhood because working at home "was getting claustrophobic."

Table 46
*Number of People Reporting Type of Activities Started
 to Minimize Conflict between
 Domestic, Leisure and Work Activities*

<i>Outdoor exercise</i>	11
<i>Social contact outside home</i>	10
<i>Professional/business contact</i>	6
<i>Indoor exercise</i>	4
<i>Civic activities</i>	3
<i>Hire babysitter or daycare</i>	2
<i>Phone calls to friends</i>	2
<i>Reading interesting material</i>	2
<i>Housework, hire housecleaner</i>	2
<i>Tanning</i>	1
<i>Social contact inside home</i>	1
<i>Therapy</i>	1
<i>Piano lessons</i>	1
<i>Family business</i>	1
<i>Other than above</i>	3

Most interesting are the efforts made to contact others, whether that is socializing in one's home, professional and business contact, civic activities, phone calls to friends, or socializing at home (although generally social contact is pursued outside the home). A latent function of exercise club activities may be desired socializing. Homeworkers express concern about the possible social isolation of working at home. However, many react to this by making sure they get out of their homes and meet people. When asked whether they had business meetings at home, some people mentioned that they made sure that meetings were held outside the home in order to be "out of the house and around others."

Another type of behavioral adjustment are the "rituals" or special activities people do to make the transition to starting work for the day. For the office worker the commute is sometimes experienced as a transition. Albertson (1977) suggests that the journey to work provides a necessary transition between changing roles. Supporting this contention, 60% of a sample of 200 commuting employees reported that commuting was a useful interlude between office and work (Nilles et al., 1976). This is not to suggest that commutes, especially those in delayed traffic, are not without physiological and psychological repercussions (Novaco, Stokols, Campbell, & Stokols, 1979). However, it does suggest that physical and temporal transitions may be necessary in a switch from one role (e.g. worker) to another (e.g. parent).

Over one-half (57.4%) of these homeworkers say they do some such ritual. Those most commonly cited are listed in Table 47. Outdoor, individual exercise, such as jogging, bicycling, and walking, as well as other forms of exercise are frequent rituals. Also is grooming, dressing up, and showering. One writer expressed the opposite of this: he made sure he never got out of his bathrobe until he was finished with his work for the day. As he said, "If I put on shoes, my feet just want to walk right out that door."

Table 47
Types of Transition Rituals Reported by Homeworkers

<i>Outdoor, individual exercise</i>	16
<i>Dress and groom</i>	14
<i>Have coffee or cigarette</i>	9
<i>Read paper, magazine or book</i>	8
<i>Meditation or religious contemplation</i>	7
<i>Tidy house</i>	6
<i>Exercise in home</i>	4
<i>Start laundry</i>	4
<i>Exercise (location not specified)</i>	3
<i>Positive mindset</i>	3
<i>Exercise at health club or class</i>	2
<i>Meet with friends</i>	2
<i>Make sure not dressed and groomed</i>	2
<i>Shower</i>	2
<i>Bring briefcase to workspace</i>	2
<i>Procrastinate by reading, housecleaning</i>	2
<i>Prepare work lists</i>	2
<i>Prepare snack tray</i>	1
<i>Non-business tasks to concentrate</i>	1
<i>Start with simple business tasks</i>	1
<i>Set up challenges</i>	1
<i>Take care of pets</i>	1
<i>Sew</i>	1

Although many of these appear to be activities all working people engage in, regardless of whether or not they go to work at home or an office, these activities took on additional meaning for homeworkers. Those who said they dressed and groomed would often tell stories about when they first began working at home and went to the computer terminal before dressing. They just could not get motivated to hit the keys. One writer emphasized that she had to look at magazines or postcards before she could enter her office. Some people would make sure they brought certain materials with them to the office, whether it was a snack tray, briefcase or other items.

Meditation, religious contemplation and a positive mindset also were cited often. A number of people tidy their homes before they start work. These are for homeworkers who expect clients and others who say they need to feel the house is "in order" before they start working (see Chapter 10).

SOCIAL STRUCTURAL ADJUSTMENTS: Another means of adjusting is a change in the roles and responsibilities of the household members. For approximately half of the households (43.7%), homeworkers have taken on additional household responsibilities since working at home. A similar percentage of households (40.8%) report that other household members have taken on more responsibilities. Sometimes this reflects adjusting to other concomitant events, such as having a baby or suffering a disability. Household members who did assume additional responsibilities were likely to be spouse/companions, housekeepers, or children. Table 48 reports the percentage of households reporting structural changes in household responsibilities. Over 70% of households report some change. There were no gender differences, overall or within household occupancy types.

Household occupancy made little difference in the change of household responsibilities. A number of homeworkers in Solo households said they used to have a housekeeper but now felt they could do the cleaning, or should do it, since they were at home more. Also some people mention they did not hire outside help because they do not want anyone else in the home while they are working, feeling this might be disruptive. Some mention doing housework as therapy for work: "If I can't think of a lead, I'll vacuum or wash the dishes," said one journalist. There were no gender differences for those hiring a housekeeper.

*Table 48
Percentage of Homeworkers Reporting
Structural/Household Changes in New
Responsibilities Assumed*

<i>Only Homeworker Assumes New</i>	<i>31.1%</i>
<i>Only Others Assume New</i>	<i>28.2</i>
<i>Both Assume New</i>	<i>12.6</i>
<i>Neither Assume New</i>	<i>28.2</i>

Appendices Z and AA list the types of responsibilities that homeworkers and others assumed after starting work at home. For both there is a high percentage of newly assumed childcare and general housekeeping responsibilities. But for the homeworker, there is a greater tendency to "do more around the home." Some homeworkers mention there is a tendency for others to expect them to do more housework. A few women I talked with said that when they mention to friends or acquaintances that they work at home, a typical response is, "Oh, you can get all your housework done now." This irritates them: "They just don't take this [the work] seriously," said one sales operator.

Although we examined changes in assuming new household responsibilities, we did not look at household distribution of responsibilities overall. As one woman said in response to these questions, "I did everything before and I still do everything." It may be that although there appears to be an even amount of change in household responsibilities between men and women homeworkers, and between homeworkers and other household members, many of these homeworkers may still be bearing the brunt of domestic chores.

THE MEANING OF HOME WHEN IT IS MORE THAN AN ABODE

Poets, architects, developers, advertisers, psychologists, and others continually inquire about people's feelings and meanings about their homes. Bachelard's (1964) inquiry was a poetic phenomenological investigation. Hayward (1977) developed a multidimensional taxonomy of the meaning of home from an empirical sorting task investigation. Monographs address the various methodologies and orientations researchers use to try and understand how, and what, people feel about their homes (see Altman, Werner & Oxley, 1985). Home is not only a physical place but a state of being. It is a relationship or experienced meaning (Dovey, 1985).

But what has been explored is typically based on conventional dwelling arrangements and conventional households. In a review of the literature on the meaning of home, Despres (1987) notes that the majority of both empirically-based and phenomenologically-derived models address the experiences of families with children. Non-conventional housing and household arrangements are seldom explored or considered.

Interestingly, ethnomethodologists argue that understanding the nature of a social norm is best explored by "disruptive experiments" (Garfinkel, 1967), that is where a social norm is posited and a situation designed in which the norm is broken. Analyses of the resulting reactions typically lead to an enriched understanding of the structure and meaning of the norm itself.

In this manner, understanding people's interpretations of home can be enriched through an investigation of their feelings when home is not only an abode but something else, in this instance, a workplace. The home work/abode might be viewed as a total institution (Goffman, 1968) when it becomes a locale for work, domestic and leisure pursuits. In total institutions friction is increased, privacy is curtailed, and one's vision of the world narrows.

Werner (1987) maintains that people are linked to their homes through (1) social rules and relationships, (2) affordances (i.e. objects and environments are perceived according to the meanings and behaviors they imply rather than specific physical characteristics), and (3) appropriation practices (i.e. one takes aspects of the world into one's being and in turn is taken in by the world). When work and business clients enter the home, social rules and appropriation practices often change, as witnessed in the previous chapter. Consequently affordances and meanings of the home are likely to occur.

One common theme in many explorations of the meaning of home is **home as order**. Rybczynski (1986) says that if home meant neatness we would all live in Architectural Digest worlds. He maintains that the fastidiousness and cleanliness of the Dutch homes which came into prominence in the 1600s not only reflected a concern for hygiene but also a desire to define the home as a separate, special place. Order then is the orientation within a spatial, temporal and sociocultural order.

Another theme is **home as identity**. The German word "stimmung" reflects this. It refers to an interior characteristic which conveys the character of its owner (Rybczynski, 1986). Csikszentmihalyi and Rochberg-Halton (1981), in interviews with 315 Chicago residents, concluded that domestic objects were cherished not only for their monetary, utilitarian or material comfort, but also because of the information they conveyed about themselves and their relationships with others.

Home as identification has two dimensions. The social perspective, exemplified by the work of Appleyard (1979) and Goffman (1971), views home as a collective identification, as a statement of identity experienced through a shared symbolic language. The personal identification perspective, exemplified by Cooper (1974), sees the connection between home and the individual human spirit.

Another reoccurring theme in the investigations of home is **home as refuge**. Ruskin illustrates this point directly:

This is the true nature of home--it is the place of peace...In so far as it is not this, it is not home; so far as the anxieties of the outer life penetrate into it, and the inconsistently-minded, unknown, unloved, or hostile society of the outer world is allowed by either husband or wife to cross the threshold it ceases to be a home; it is then only a part of the outer world which you have roofed over and lighted fire in (Quoted in Meyrowitz, 1985, p. 222)

This positive sense of home as refuge is emphasized in the academic literature (e.g. see Altman et al, 1985). Yet feminists in recent years have criticized this orientation (see Despres, 1986), emphasizing that the positive image of home as refuge is myopically conceived by those, typically men, who spend an inordinate amount of their lives outside the home. The notion of home as refuge from the world of work masks the sexual division of labor (Kelly, 1979). Becker (1986) contends that the idea of home as oasis is probably an upper-middle class image and reality. Most inquiries into the meaning of home have neglected, at the least, the nature and meaning of work (professional and domestic) as a component in that interpretation.

Metaphysical questions about the meaning of home are more than simple academic mental calisthenics. The lack of consensus about the meaning and use of spaces and objects in the home may engender conflicts among household members (Lawrence, 1987). Although in this chapter we focus

only on the homeworkers' perceptions of home, it is incumbent to pursue in the future the role of those feelings as coping devices or as instigators of heightened stress and strain in the home.

The question posed is:

How do homeworkers feel about their homes, and have those feelings changed or been reinforced since they started working at home?

Homeworkers were asked the above question directly. But comments about their feelings arose at various times during the interview. Some could not answer this question, and simply said, "Well, I like my house." We probed extensively on this question.

We recorded each comment (sometimes people would have more than one interpretation) on an index card, and followed qualitative data analysis procedures recommended by Miles and Huberman (1984). This type of analysis, and the complexity of the question, was intended to generate a number of different classifications and taxonomies. We did not feel we were to discover a singular "answer" or taxonomy.

Three researchers individually sorted the cards into categories, which they defined and developed. Sometimes these categories were similar between judges, others quite different. Although this procedure may appear to resemble the multiple sorting task advocated by Canter and colleagues (1985) what we were attempting was to discover the multiple categories which reflect people's changed feelings about their homes. We were less interested in the relationship between comments and more in the creation, development and understanding of multiple categories of meaning.

A more complete analysis from these sorts is forthcoming. This chapter explores the 3 common themes of the meaning of home in the research literature--as refuge, as order, and as identity--from the perspective of professional homeworkers. Future work will involve developing more complete taxonomies as well as differentiating interpretations by domestic and work characteristics.

HOME AS REFUGE

As discussed above, the "home as refuge" metaphor is a theme prevalent in most empirical and phenomenological studies of home. However, the dimensions of this feeling explode when home is more than one's private abode.

For some, home remains a refuge.

The home is private. It is a sanctuary. There is no difference in my feelings. [199, Man, Full Nest]

For others, home becomes more of a refuge, in a positive manner. Some spoke of the pleasure not having to go out of the home often. One woman operating a bindery and mail service said her home became more of a refuge, a safe haven. This was because she and her husband are building a family business, and that business is located in the home along with their children. As she explained, "This business is like a child--you have to nurture it also." This nurturing quality of a business along with the family, and the links between them, intensified for her the refuge and haven aspect of her home.

Home is very important and I can spend weeks without going outside. [82, Woman, Full Nest]

Home is more of a refuge since I don't have to go out of the home. [26, Woman, Single Parents]

For many, the refuge nature evolved into a sense of isolation and entrapment, resulting in negative feelings and in some cases reactions to minimize those feelings. Home became less of a haven and more of a prison. Many people describe this as feeling "chained" or "trapped." One person mentioned that now since the home was the center of most of her activities, she felt more vulnerable when she left her home. This may reflect "the problem that has no name" (Friedan, 1963) shared among many housewives in the 1950s, and a concern among feminists today that home-based work may once again confine and isolate women.

Home is not a refuge now--I can get trapped here. [152, Woman, Solos]

Home used to feel like a sanctuary. Now I sometimes feel trapped because I'm here all the time. [164, Woman, Full Nest]

Several people who mentioned this feeling also mentioned how they responded to counteract it. Many make an effort to get out of their homes for part of the day. One woman said the home used to feel like a sanctuary to her. But now that she is here all the time, and with a new baby, she often feels trapped. Because of this, the neighborhood has become "critical" to her for walking, getting out, and "extending" herself from the home. Similarly an escrow manager mentioned that she used to go out to lunch everyday with her husband, when he was alive, to make sure they maintained a distinct area away from the home/office. As one woman mentioned, "I feel home is my place, a place to come back to when I go out. But I definitely need to go out at least one day a week to see people."

It's difficult to detach from things at home. I must get physically away. [116, Man, Adults Only]

Home may become less of a refuge especially when it becomes "invaded" by clients. It was no longer a place to relax. As one person said, "It is now harder to get away from either work or my family." But many of these people interpreted the nature of refuge as a place to get away from work: "When you work at home it is not a refuge from work-- the work is always there." Many times the nature of having clients in the home produced these feelings: "I used to feel the home was a more personal place. Now it's not because other people are coming into the home, walking through it and seeing my family."

People who come into my home to see my demonstrations also come into my privacy. [23, Woman, Full Nest]

A space or time associated with the work itself may become a refuge within the home. Sometimes this is defined temporally. One homemaker felt that her relationship with her home was stronger when she was home alone. When her family entered the house, the feeling of refuge dissipated. Another homemaker saw her home as "her castle" during the day, and, as she put it, will do anything to "defend it" then. Her husband had an extended disability for awhile and was home during the day--her working hours. Even though he spent most of the time upstairs while she was working in her exclusive downstairs office, she did not like it and felt he was intruding. Refuge may be **temporally** defined.

Others define it **spatially**. A few people explicitly mentioned that they did not like household members or friends to go into the office. Some are explicit about it: "the office is my refuge," "my workspace is more of a haven," "the workspace is a haven for me from the rest of the house." Conversely other parts of the home may be viewed as a refuge from the workspace. One homemaker felt that her bedroom was a retreat because she did not work there.

My office is my space. I don't like my family in here. I like having a door to close. [107, Woman, Adults Only]

HOME AS IDENTITY

Home as identity was another consistent theme that homeworkers mentioned. In many cases this was positively construed.

For some, home took on a professional identity. One woman claimed, "Home now reflects my values, tastes, interests. My work

allows me to express my values more than I would do with a washing machine." One woman who does a lot of demonstrations at home feels she should impress her clients when they arrive by not having a messy house. Interestingly this woman is corporate-employed, and what she feels she is representing is the company and her role in that company. Another felt the exterior facade was important in its appearance to clients since it was their first impression.

I feel better about my home because I have something definite to do at home now. [13, Woman, Full Nest]

My children [grown and living outside her home] don't feel it is a home but a business. [126, Woman, Solos]

Home may identify the homeworker domestically which is generally disliked. After completing a two-hour interview, a respondent hesitated when I got up to leave. "I must tell you," she said, "working at home has made me a housewife." Her family does not see her as "working" since she does not show the exterior signs of professional work: i.e. she does not dress up and go out. Because they see her at home all day, they expect her to do all the housework. She complains that they never help her.

In a similar vein, one fellow mentioned he had an office outside his home office, not because of personal problems working at home, but, he felt, his clients had a negative impression of him, not being a professional, when they came to meetings at the home.

Home may assume an integrative identification. People mention that their homes now represent their integrated lives-- domestic, leisure and work. As one free-lance writer who had been working out of his home for the past 25 years said, "Work is such an integral part of me that I would feel lost without an office in the home. If I had an office outside my home I'd still want an office here. It is part of my identity." Another person mentioned how the identity of the home had changed. It was now not only a place for family but also for the creative, work part of her. In fact she likes her home more now because "it incorporates all of me--the creative part and the other part." A number of people appreciate this integration. One person said he does not feel he has to separate his work and private lives; he likes the integration, it makes him feel "whole."

The identity of the home has changed--not only a place for family but also for the creative work part of me. [160, Woman, Adults Only]

All wins and disappointments are anchored here. The home is the repository now for everything. [115, Man, Adults Only]

Some people express a need for identity separation. They prefer this separation between their domestic and work lives, in space and time. Integration, like that expressed above, was not desired and hence this spatial arrangement was sometimes problematic.

I like having a separation between work and home. I like travelling to work, putting on a suit, and all the rest. If I had my own business I would not want to do it out of my home. [113, Man, Full Nest]

I must keep home life and work life separate in space and time. [110, Woman, Adults Only]

One homemaker began to identify with her home as her own through her work at home. She felt that having her own business, at home, perhaps made her feel it was her home. When she remarried and moved into her husband's house several years ago, she never felt it was her own home. But recently, with her children grown and gone, and having a business at home, she now feels that the house is hers: an appropriation through individual work and space as she now claims her home as her own.

HOME AS ORDERED SPACE

This involves four dimensions.

Increased spatial awareness of the home was often the result of spending more time at home and of having clients visit the home. Some mentioned becoming more aware of the size--the house now seemed smaller when using it more intensively and frequently. Certain areas of the home or certain qualities and fixtures are more keenly noticed.

I didn't appreciate the upstairs [where her office is now located, and which used to be the children's bedrooms] until I moved up here. [67, Woman, Adults Only]

I now notice more things that need to be done around the home, things that need to be fixed. I notice them more than my husband does because I'm here so much. [14, Woman, Single Parents]

A spatial response to this spatial awareness is remodeling, not only of the workspace but the entire house. Many homeworkers took me on "tours" of their homes to show me how they had remodeled the kitchen, renovated the basement, added an outdoor deck, or completed other work. Another spatial response is separating domestic and work space. One Solo woman not only had an exclusive office but also a

separate bathroom for clients and visitors to use. Sometimes this spatial response was in closing doors. Sometimes the response is attitudinal: a feeling that work and domestic spaces are separate, or they commingle. One health care consultant said that when she is working on a big project she mentally construes her workspace as encompassing her kitchen and workroom; normally she thinks of it simply as her workroom.

Since I spend more time at home I want to do more remodeling. I want the entire home to look nice. I've remodeled almost every room. [11, Woman, Full Nest]

Before, home used to be just a place to sleep. Now I want to make the entire home comfortable. This also makes me feel better about working here. [202, Woman, Solos]

Decorating now is more important because I spend so much more time at home. I've decorated not only the office but everywhere in the house. [101, Woman, Full Nest]

Many homeworkers voiced being aware of order, particularly clutter. One homeworker with four children said that she was now more aware of her home being messy. Not only the time spent at home but also client visits prompted this increased awareness.

I'm more aware of the messy state of my house because people pop in at any time. [19, Woman, Full Nest]

I'm now more aware of things going wrong in the house. [2, Woman, Full Nest]

Many people respond to this awareness of order by tidying the home. I expect that many of them spent quite a bit of time cleaning their homes before we came over for interviews. Many said they kept their homes clean and tidy not only for clients, but also for themselves since they are there more. Some resent this. One male homeworker said, "I tend to resent doing things around the house just because I'm always here. Home becomes a place to do housework and not to relax." One corporate-employed woman resented the cleaning she did for customer visits to the home, and felt the time spent in cleaning was not recognized by her company.

I keep the home cleaner for myself. I don't have clients here. I do it because I'm here more. [206, Woman, Adults Only]

I keep the downstairs neater than before [office is upstairs] for both myself and for clients. I think better when things are neat. [64, Woman, Adults Only]

I keep the house neater because now it is the center for work and private life. I especially keep the "community rooms" clean and picked up. [162, Woman, Adults Only]

CONCLUDING REMARKS

WHAT DOES THIS MEAN?

Although many of the key findings are summarized in the Executive Summary, some overall conclusions can be drawn from them which are important to the design and planning professions.

One of the most salient issues which occurs when discussing neighborhood amenities, ideal home preferences and the meaning of home is the importance of making home a place of **prospect** in contrast to its intensification as a refuge. Prospect refers to having an extension, a grand view, an overview of the landscape, while refuge refers to having a safe place to hide, a place from which one can see without being seen (Kaplan, 1986). Although homeworkers express the need for a place to work separate from the "public" and "living" areas of the home, especially when there are children in the household, they particularly express the need for ensuring that the home itself does not turn into a cage or prison. The community and landscape context of the home becomes more salient, more meaningful, more desirable. Since one of the most commonly expressed concerns of working at home from homeworkers is the feeling of social isolation, and people will make adjustments to combat these feelings, the built and natural landscape surrounding the home should be particularly pleasant, to provide needed "escape" from the home/workspace.

Although **separation** of the workspace from other "public" areas of the home is desirable, extreme separation, such as a detached unit on the lot, is not. Many of these people choose to work at home, and when asked if they would want a separate structure to work in, they say that would be defeating some of the reasons for working at home. They do not want to slosh in the rain to an office in the back yard. At night they do not want to feel separated from the household while they are working. They do not want to worry about security for two structures. And they do not want to travel any measurable distance from their workspace to go to the kitchen for a snack or to talk to their children.

Housing designers need to consider spatial layout, but also conditions such as **temperature, lighting, and electrical** current. Heating only one room in the house during the day when no one else is around is less expensive than having to heat the whole house and more comfortable than leaving the place cold and wearing three sweaters. Lighting is a special concern for those working on VDT screens. Since people enjoy natural light and views, appropriate window coverings and window placement need to respond to glare problems.

Professional homework is **not an answer to childcare** and the homeworkers in this sample do not attempt to combine work and childcare. In fact they deliberately attempt to separate them, both physically and temporally. But the inadequacy of childcare for the working population as a whole results in friends and neighbors hoping to use homeworkers as temporary babysitters. Certainly both temporary and regular childcare services are needed for the working population.

Finally the **changed meaning** of home needs to be understood by architects and psychologists. The home may change from a refuge to a prison if community "escapes" are not provided. It may now represent not only the family but also one's professional identification. The extent to which it does not represent the latter but only the former can be disconcerting to some people. Architects need to consider how to make the home a more professional place, and planners need to consider how to make it less isolating, while still accommodating the basic notions of refuge and domestic identification.

WHAT ARE THE NEXT QUESTIONS?

This report represents both an exploratory quest for the salient concerns of the socio-spatial aspects of working at home and the initial analysis of data from this exploratory research. There are many research questions which this study raises, some of which can be examined from the information at hand, some of which require new investigations.

Of the former, many of the physical aspects of the home are still being analyzed: the location of the workspace in the home relevant to other rooms and functions; the path from the front (formal) entry to the office; the further refinement of the exclusive/shared classification not only by the sharing of functions but also the sharing or exclusive use of doors and other connectors. These are being analyzed in conjunction with reported role overlaps, conflicts and distractions as well as with the changed meanings of home.

Further work of this data involves developing a more structured taxonomy of the changed feelings of home. The data presented here represents only a few of the comments. Other categories have emerged. The next step is to develop those categories further and to differentiate them by gender, household composition, work characteristics and home qualities.

This study is an exploration not only of professional homework but also of alternative work and domestic settings. The home is only one of a number of possible remote work sites. Daycare centers located in businesses and office buildings, mixed-use buildings, and neighborhood work centers are other work setting alternatives being experimented with

today. The neighborhood work center, popular in Scandinavian countries, is more than a "back office." It is an electronically-equipped office which leases space to tenants of various types and sizes and may accommodate multiple employers. It is situated within a neighborhood, presumably one where the workers reside. The State of California has made a proposal of a similar work center for state employees which is under consideration by the state legislature (JALA Associates, 1985).

This report is about social change, and how the built landscape can accommodate that change. The demographic and employment trends cited in Chapter 2 are demanding environmental accommodation. Professional homework is only one of several options people are now exploring.

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APPENDICES

The full set of appendices is available by writing to the author.

Appendix A
Sample Letters

**The School of The
Architecture University of
& Urban Wisconsin
Planning Milwaukee**

WILL THE 'ELECTRONIC COTTAGE' CHANGE THE SHAPE OF THE AMERICAN HOME AND NEIGHBORHOOD?



I am trying to find out by talking to people who work out of their homes, at least 20 hours a week, on a computer system. The interview will take approximately one hour of your time, at your home and at your convenience. All responses, names, and locations will be kept strictly confidential. You will be paid \$10 for your assistance.

If you are interested in being interviewed, please fill out the form below and return it to me in the enclosed envelope. I will call you and answer any questions you may have about the project, and if you are interested set up an appointment for the interview.

Findings from this study will make it easier for people to create home office environments which support and facilitate desired activities, increase productivity, and reduce family/work conflicts. This study is being funded by the National Endowment for the Arts, and the University of Wisconsin-Milwaukee.

Thank you in advance for your cooperation. If you have any questions, please call me at 414/963-4014.

Regards,

Sherry Ahrentzen

Sherry Ahrentzen, Ph.D.
Assistant Professor of Architecture

I am interested in your study. Please contact me.

Name: _____

Address: _____

Phone: _____

**The School of The
Architecture University of
& Urban Wisconsin
Planning Milwaukee**

July 9, 1986

TO: Member,

I am currently conducting research on home and neighborhood design implications of homebased work. Findings from this study will make it easier for people to create home office environments which support and facilitate desired activities, increase productivity and reduce family/work conflicts. This study is being funded by the National Endowment for the Arts.

My research team will be interviewing people in their homes who use a computer on a regular basis as part of their work at home. Each participant will receive \$10 for a completed interview (which lasts approximately 1 hour) and names and responses will be kept strictly confidential.

If you are interested in these interviews, please return this letter with your name, phone number, and address so we can contact you and set up an appointment at your convenience. A stamped, return envelope is enclosed for your convenience.

Name: _____

Address: _____

Phone No.: _____

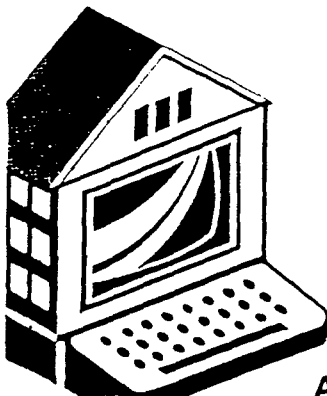
Sincerely,



Sherry Ahrentzen, Ph.D.
Assistant Professor of Architecture

70986/#1

P.O. Box 413 Milwaukee, Wisconsin 53201 414-963-4014



LIVING & WORKING UNDER THE SAME ROOF

A STUDY OF THE UNIVERSITY OF WISCONSIN-MILWAUKEE

In this section, you will be asked some questions about your home and home workplace.

1. For your primary workspace, have you made any of the following improvements since working at home?

	YES	NO	
Painted?	<input type="checkbox"/>	<input type="checkbox"/>	5/
Wallpapered?	<input type="checkbox"/>	<input type="checkbox"/>	6/
Added covered storage?	<input type="checkbox"/>	<input type="checkbox"/>	7/
Added shelves?	<input type="checkbox"/>	<input type="checkbox"/>	8/
Added walls or partitions?	<input type="checkbox"/>	<input type="checkbox"/>	9/
Added fabric separators?	<input type="checkbox"/>	<input type="checkbox"/>	10/
Added or modified lighting?	<input type="checkbox"/>	<input type="checkbox"/>	11/
Added or modified flooring or carpeting?	<input type="checkbox"/>	<input type="checkbox"/>	12/
Added furniture? (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	13,14/
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	15,16/
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	17,18/

2. If you rent your home: Have you wanted to make any of the above improvements but not been allowed to do so by your landlord?

☐ YES ☐ NO 19/

↓
Which improvements are these?

_____ 20-23/

3. Which of the following equipment items do you have in your home? Specify if they are your own, if you rent or lease them, or if they are owned or rented by the company you work for.

	OWN	RENT OR LEASE	OWN OR RENT BY COMPANY I WORK FOR	DO NOT HAVE	
Computer terminal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24/
Printer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25/
Modem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26/
Private business phone line.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27/
Telephone answering machine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28/
Multiple line phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29/
Xerox or copy machine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30/
Postal meter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31/

4. To what extent do you agree with these statements?

	Strongly	Slightly	Not at all	
If I could do everything I wanted within my neighborhood, I would rarely leave it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32/
I dislike having to take the car to obtain the things I need.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33/
I enjoy frequent trips away from my neighborhood.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	34/
I prefer to spend most of my leisure time outside my neighborhood.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35/
I like having people drop by my home without calling me beforehand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	36/
Activities in the household are carefully planned.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	37/
In this household we are generally neat and orderly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	38/
It is hard to find things when you need them in this household.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	39/
Each person's duties are clearly defined in this household.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40/
Roles are pretty inflexible in this household.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	41/
There is a strong emphasis on following rules in this household.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	42/
There are set ways of doing things at home.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	43/
There are very few rules to follow in our household.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	44/

PART TWO

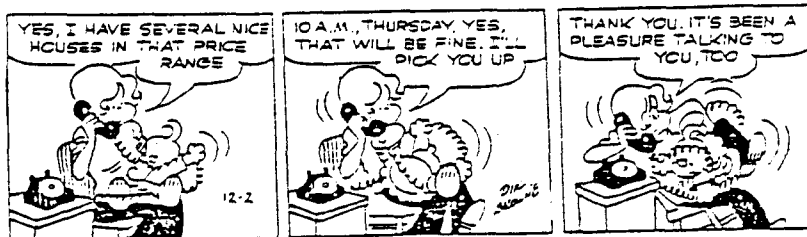
The following questions concern specific aspects of your life as a homemaker.

5. How often do each of the following activities occur while you are working?

	Very Often	Often	Sometimes	Hardly Ever	Never		
I hear or see the television.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	45/
I hear music.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	46/
The house is messy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	47/
I see the refrigerator.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	48/
I see outdoors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	49/
Dishwasher is on.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	50/
The phone rings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	51/
Someone knocks at the front door.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	52/
I hear or see my children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	53/
I hear or see other household members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	54/

6. Now, how often do each of the following distract you while you are working?

	Very Often	Often	Sometimes	Hardly Ever	Never		
Sound or sight of television	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	55/
Music	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	56/
Messy state of the house.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	57/
View of the refrigerator.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	58/
View of outdoors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	59/
Dishwasher noise.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	60/
Phone ringing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	61/
Visitors at front door.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	62/
Children.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	63/
Other household members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	64/



7. Each of the following items might be affected by you working at home. Please indicate the degree to which you feel this has increased or decreased since you have been working at home. Circle 'N/A' if it does not apply to you.

	<u>Increased A Lot</u>	<u>Increased Somewhat</u>	<u>Stayed The Same</u>	<u>Decreased Somewhat</u>	<u>Decreased A Lot</u>		
Amount of communication with members of household	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	65/
Amount of communication with my friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	66/
Satisfaction with my job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	67/
Satisfaction with my home life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	68/
Feelings of stress around work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	69/
Feelings of stress around home life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	70/
Conflicts between work and home activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	71/
Conflict at home over the way time is used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	72/
Conflict over the way space in the home is used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	73/
The quality of my relationship with spouse or companion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	74/
The quality of my relationship with my children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	75/
The quality of my relationship with friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	76/
The quality of house-keeping or home maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	77/

8. For each of the following items, please indicate the extent to which it describes your work.

	<u>Very Little</u>	<u>A Moderate Amount</u>	<u>Very Much</u>	
Being left on your own to do your work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5/
Seeing projects or jobs through to completion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6/
Having other people tell you how well you are doing on the job as you are working	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/
Opportunity to meet individuals whom you would like to develop friendships with	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8/
The extent to which your job depends upon your ability to work with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9/
Repetitious duties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10/
Extent to which you are able to act independently of your supervisor in performing your job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11/
Extent to which dealing with other people is a part of your job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12/
Similar tasks performed each work day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13/
Extent to which you are able to do your job independently of others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14/
The opportunity to talk to other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15/
The opportunity to do a number of different things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16/
The control you have over the pace of your work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17/
The opportunity to do a job from the beginning to end (i.e., the chance to do a whole job)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18/
The opportunity to give help to other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19/

9. Are you ever bothered by indoor noise while you work?

☐ YES ☐ NO

20/

IF YES: Which do you do when indoor noise disturbs your work?

☐ I close the door

21/

☐ I ignore it

22/

☐ I tell people to stop doing certain activities

23/

☐ Other (SPECIFY) _____

24-27/

10. Are you ever bothered by outdoor noise while you work?

☐ YES ☐ NO

28/

IF YES: Which do you do to control outdoor noise that disturbs your work?

☐ I keep windows shut

29/

☐ I work more in the back of the house

30/

☐ I have added heavy curtains or drapes

31/

☐ I have a fenced or walled-in yard

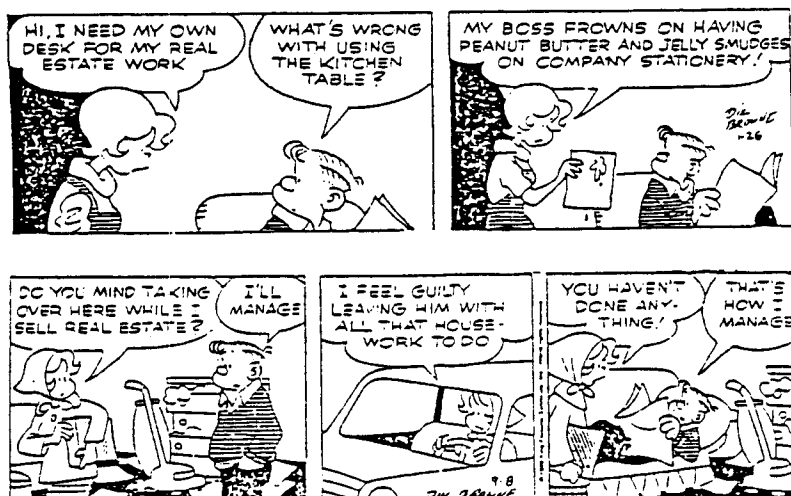
32/

☐ I have planted trees or shrubs

33/

☐ Other (SPECIFY) _____

34-37/



PART THREE

This final set of questions concerns some general aspects about yourself.

11. Is there a private car, truck or motorcycle available for you to drive? 38/
☐ Always
☐ Usually
☐ Occasionally
☐ Not at all
12. (IF HOME OWNER) 39/
If you were to sell your house tomorrow how much would you ask for it? 40-45,
\$ _____
- (IF RENTER) 46/
How much rent do you pay per month? \$ _____ 47-50/
13. What is the highest level of education you have completed? 51/
☐ Grade 1-8
☐ Grade 9-11
☐ Graduated high school
☐ Technical school
☐ Some college
☐ Graduated college (4 years)
☐ Attended or completed graduate school
14. What is your total household income in 1985 from all sources before taxes? 52/
(Please include here all income received by anyone in your household.)

<input type="checkbox"/> Less than \$5,000	<input type="checkbox"/> \$25,000 to \$29,999
<input type="checkbox"/> \$ 5,000 to \$ 7,499	<input type="checkbox"/> \$30,000 to \$39,999
<input type="checkbox"/> \$ 7,500 to \$ 9,999	<input type="checkbox"/> \$40,000 to \$49,999
<input type="checkbox"/> \$10,000 to \$14,999	<input type="checkbox"/> \$50,000 to \$74,999
<input type="checkbox"/> \$15,000 to \$19,999	<input type="checkbox"/> \$75,000 to \$99,999
<input type="checkbox"/> \$20,000 to \$24,999	<input type="checkbox"/> \$100,000 and over
15. What is your total personal income in 1985 from all sources before taxes? 53/

<input type="checkbox"/> Less than \$5,000	<input type="checkbox"/> \$25,000 to \$29,999
<input type="checkbox"/> \$ 5,000 to \$ 7,499	<input type="checkbox"/> \$30,000 to \$39,999
<input type="checkbox"/> \$ 7,500 to \$ 9,999	<input type="checkbox"/> \$40,000 to \$49,999
<input type="checkbox"/> \$10,000 to \$14,999	<input type="checkbox"/> \$50,000 to \$74,999
<input type="checkbox"/> \$15,000 to \$19,999	<input type="checkbox"/> \$75,000 to \$99,999
<input type="checkbox"/> \$20,000 to \$24,999	<input type="checkbox"/> \$100,000 and over

16. Do you share economic or financial responsibility of the household with another person?

54/

- ☐ Yes
☐ No

17. During the last three years would you say your financial situation has been getting worse, has stayed the same, or has been getting better?

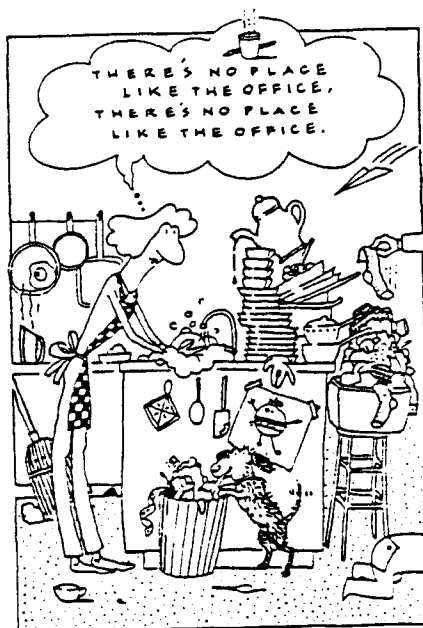
55/

- ☐ Getting better
☐ About the same
☐ Getting worse

18. For making decisions about your home, do you:

56/

- ☐ Exclusively make most of the decisions
☐ Share responsibility with other(s) in making decisions
☐ Rarely participate in making decisions



THE END

Thank you for participating in the study.

RESPONDENT I.D.# _____

1. Where does the respondent live?

1. In a large city (150,000 +)
2. In a medium-sized city (50 - 249,000)
3. In a small city or village (under 50,000)
4. In a suburb near a large city
5. In a suburb in a medium sized city
6. In a suburb near a small city
7. On a farm, ranch or open country

2. Structure in which the respondent's home is contained:

1. Single house
2. Duplex
3. Triplex
4. Row housing
5. Low rise apartment (four floors or less)
6. High rise apartment (five floors or more)
7. Other: (SPECIFY) _____

IF Mixed-use building, describe: _____

3. Street on which the respondent's home is located:

1. Residential character
2. Commercial character
3. Other: (SPECIFY) _____

4. If more than one dwelling unit, is the access from the street a:

1. shared entrance
2. private entrance

5. If shared entrance, is it a:

1. locked entrance
2. unlocked entrance

6. If shared entrance, how many household units share it?

1. 2
2. 3-4
3. 5-6
4. 7-8
5. more than 8

7. If multistory building, SPECIFY:

- a. the number of stories # _____ (excluding basement)
- b. the number of dwelling units # _____ /story
- c. the story on which the respondent's home is located # _____

8. Where is the main access to the dwelling unit or building located?

1. front facade
2. lateral facade
3. back facade

9. Is there a separate entrance to the office from outside?

1. YES
2. NO

10. At the entrance (THE ONE USED FOR WORK), is there a:

- a. door bell
1. YES 2. NO 3. N/A
- b. name on the mail box
1. YES 2. NO 3. N/A
- c. any office sign outside
or in the lobby
1. YES 2. NO 3. N/A
- d. other publicity related
to homework
1. YES 2. NO 3. N/A

describe: _____

11. How many doors to the dwelling unit are there? (IF APARTMENT, INCLUDE ONLY THE DIRECT ACCESS TO THE INSIDE OF THE DWELLING UNIT)

12. Does the house or building have:

- a. a front yard?
1. YES 2. NO
- b. a back yard?
1. YES 2. NO

13. Does the dwelling unit have

- a. a front porch
1. YES 2. NO
- b. a back or lateral porch
1. YES 2. NO
- c. a front balcony
1. YES 2. NO
- d. a back or lateral balcony
1. YES 2. NO

14. (IF HOUSE)

Is there an off-street parking space for more than one car?

1. YES
2. NO

15. (IF APARTMENT BUILDING) Is there off-street parking spaces available for visitors?

1. YES
2. NO

16. ORIENTATION OF FRONT FACADE _____




17. Take a photograph of front facade from other side of the street, as well as of the general character of the street. (Record film roll #: _____, shot #s: _____)

Indicate any comments regarding maintenance, painting, grass, landscape, appearance of lobby.

A full page of blank graph paper with a uniform grid of small squares. The grid consists of 20 columns and 20 rows, creating a total of 400 small square units. The lines are thin and black, set against a white background. There are no margins, text, or other markings on the page.













- Regular Folding Threshold

Sliding
Curtain, bamboo
Windows

- Fixed overhead 
 Portable desk lamps 
 Wall-mounted 

Suspended overhead
Portable floor lamps
Track lighting

IF DIMMER SWITCHES, PUT (D) BESIDE SYMBOL

4. Locate: Electrical connection(s)  Telephone outlet(s) 
5. Draw furniture arrangement.
6. Indicate Table(T), Desk(D), File Cabinet (FC), Book shelves (BS), Chair(C), Sofa(S), and other furniture.
7. Locate the computer: screen, keyboard, disk drive(s) unit, printer
8. Locate: Telephone(s)  Clock 
 Answering machine  Radio or Hi-fi 
 Typewriter  Television 
 Calculator 
9. Locate: Calendar  Art work *
 Bulletin board  Vertical displays *→
10. Indicate the North orientation 
11. (WITH RESPONDENT'S HELP) Locate, define tangential rooms to workspace (those with visual and physical access)
12. (WITH RESPONDENT'S HELP) Distance from workspace to: (or indicate on different floor, e.g. 2F)

Children's play area _____	Bathroom _____
Kitchen _____	Entry doors _____
TV _____	Phones _____
Bedrooms _____	Laundry machines _____

13. (IF PHOTOGRAPHED) film roll #: _____ shot #s: _____

-
- | | | |
|---------------------------------------------------------|---------------------------|----|
| 1. Access to workspace can be locked | 1. YES 2. NO | 35 |
| 2. Floor surface: _____ | | 36 |
| 3. Acoustical device for printer: | 1. YES 2. NO 3. N/A | 37 |
| 4. Wiring, cord, or cable apparent | 1. YES 2. NO | 38 |
| 5. Presence of coffee pot | 1. YES 2. NO | 39 |
| 6. Presence of plants | 1. YES 2. NO | 40 |
| 7. Describe any visual art or personal, non-work items: | | 41 |
| _____ | | |
| _____ | | |
| _____ | | |
| _____ | | |
| _____ | | |
| 8. Indicate outside views from workspace room: | | 42 |
| _____ | | |
| _____ | | |
| _____ | | |
| _____ | | |
| _____ | | |

Appendix B
Data Collection Instruments

THE UNIVERSITY OF WISCONSIN-MILWAUKEE STUDY
of
LIVING AND WORKING UNDER THE SAME ROOF
INTERVIEW

TIME INTERVIEW BEGAN: _____ A.M.
P.M.
TIME INTERVIEW ENDED: _____ A.M.
P.M.

NAME OF RESPONDENT: _____

ADDRESS: _____ APT. #: _____

CITY, STATE, ZIP: _____

TELEPHONE #: _____

DATE: _____
MONTH DAY YEAR

RESPONDENT I.D.: _____

SAMPLE: DUN FIRM MEDIA SELF-CONTACT

Male Female

Hello. I'm _____ from the Architecture Department at University of Wisconsin-Milwaukee. As I mentioned on the phone, I am conducting a study for the National Endowment for the Arts on home offices. I would like to ask you some questions about your work, family, and leisure activities, and how you use your home and neighborhood while conducting those activities. I would also like to get some information about the present layout of your workplace. This information will help us in making recommendations for the design of homes and neighborhoods which accomodate home-based workers. The interview lasts approximately 45 minutes. After the interview I would like to draw a sketch of your workplace and take some photos with your permission. In all, this should take about 1 hour. You will be given \$10 in appreciation of your cooperation in giving us your time for this interview.

Your answers to all the questions will be kept completely confidential. The consent form I am giving you to sign explains the procedures in more detail. (GIVE CONSENT FORM, GET SIGNATURE AND SOCIAL SECURITY NUMBER.)

1. First I need to know who else besides yourself lives here, and their relationship to you. Please tell me if any of them are 17 years old or younger.

<u>Relationship</u>	<u>Age</u>
_____	20-23
_____	24-27
_____	28-31
_____	32-35
_____	36-39
_____	40-43
_____	44-47

Now I would like to ask you some questions about your job.

2. What is your present occupation or job title? _____ 48-49
 (NOTE: If more than 1 occupation, indicate questions are to be answered for that involving home-based work) (☐ more than 1 occupation) 50
3. How long have you worked at this occupation? _____ 51-53
 (convert to months: _____)
4. How long have you worked at this occupation at home? _____ 54-56
 (convert to months: _____)
5. Did you work anywhere else (for paid employment) before working at home? 57
 1. Yes
 2. No
6. On the average, how many days per week do you work? _____ 58
7. On the average, how many weeks per year do you work? _____ 59-60
8. On the average, how many hours do you work at home each week? _____ 61-62
9. How many hours is this on the computer? _____ 63-64
10. Do you work more, less, or about the same number of hours a week at home as you did before you started working at home? 65
 1. more
 2. less
 3. same
 4. did not previously work
- (If more): How many more hours? _____ 66-67
 (If less): How many fewer hours? _____ 68-69

11. Would you say your work schedule (that is, the hours you work) is regular or sporadic throughout the day? 70
1. regular
2. sporadic

12. Would you say your work schedule is regular or sporadic throughout the week? 71
1. regular
2. sporadic

13. Throughout the month? 72
1. regular
2. sporadic

14. Throughout the year? 73
1. regular
2. sporadic

CARD 15. We are trying to get an idea of the way your work is scheduled. 5-

I would like you to fill out this chart for a typical working day or a previous working day, whichever you prefer. Fill in the cell with the appropriate letter when you were: (a) working, (b) engaged in housework or childcare, (c) engaged in leisure or exercise, (d) traveling, (e) sleeping, and (f) eating. For activities other than these listed, leave the cell blank. If you do more than 1 activity at a time (for example, taking care of children while you work), indicate this by overlapping the letters in the appropriate cells. Then in the second column, mark with an 'X' those times you were at home. And in the last column, mark with an 'X' those times when other people were at home.

CARD 16. On this scale please indicate how typical this day is as a working day for you.

Quite typical 1 2 3 4 5 Rare 20

17. Do you ever go out of the home to meet with clients, co-workers, or your employer?

1. YES
2. NO 21

(IF YES): Where do you typically meet? _____ 22-24

18. Do you ever meet with clients or co-workers or your employer at your own home?

- 1. YES
- 2. NO

25

(IF YES): How many times during a typical week would you do so? _____

26-27

How many hours a week would these people be in your home? _____

28-29

How many people generally come at the same time? _____

30-31

Where in your home do you meet? _____

32-35

By which door do your clients or business associates most frequently enter? _____

36

19. I would like to get an idea of how important the computer is for your work. Would you say:

- 1. It is impossible to do your job without a computer
- or
- 2. The computer makes your job easier or faster but you still would be able to do your job without it.

37

20. How many hours a week would you say you spend on the phone for work-related calls? _____

38-39

We are also interested in how you use the space in your home.

40(B)

21. How long have you lived in your present home? _____
(Convert to months: _____)

41-43

22. Do you rent or own your home?

44

- 1. Rent
- 2. Own

23. By how many doors can you enter your home? _____

45

24. By which door do you most frequently enter your home? _____

46

25. (IF APPLICABLE) By which door do other household members most frequently enter the home? _____

47

48(B)

26. Is there an area which you consider to be your primary work area?	
1. YES	49
2. NO	
(IF YES): Where is that?	50-51
(IF NO): Which area is your computer in?	52-53
27. Why did you choose this area as your primary workspace? <i>(Make them be specific. PROMPT: How much choice they had; was it leftover space or did they move other activities?)</i>	54-55 56-57 58-59 60-61
28. What other areas of your home do you use when you work?	62-63 64-65 66-67
(IF ANY): How many hours a week do you use those spaces for work? _____	68-69
What work activity do you do there?	70-71
29. What physical features of your home are beneficial for you for working at home?	72-73 74-75 76-77 78-79

30. What physical features of your home present problems for you working at home?

5-6
7-8
9-10
11-12
13-14

CARD 31. On this scale from 1 to 5 how much do you enjoy working at home?

Most enjoyable 1 2 3 4 5 No enjoyment 15

CARD 32. Pretend for a moment that you can design your ideal home workspace. For each of these features, I'd like you to indicate whether you feel you must have it, it would be nice but not necessary, or you would not want it.

	You must have (1)	It is not nec- essary but nice to have (2)	You would not want (3)	(If 1 or 3, explore why):
A. Entrance to workspace directly from outside	_____	_____	_____	_____16, 43
B. Separate <u>room</u> for the workspace	_____	_____	_____	<u>(3)</u> _____17, 44
C. Distinct work <u>area</u> in an existing room	_____	_____	_____	_____18
D. Workspace detached from the house in a separate structure	_____	_____	_____	_____19, 45
E. Separate room for meetings and conferences	_____	_____	_____	_____20
F. Separate room for clients to wait	_____	_____	_____	_____21
G. Adjoining bathroom to workspace	_____	_____	_____	_____22
H. View to a rear yard	_____	_____	_____	_____23
I. View on the street	_____	_____	_____	_____24
J. Windows that can be opened	_____	_____	_____	_____25

K. Work space with no visual access to other rooms	_____	_____	_____	26
L. Room that you could shut off from noise	_____	_____	_____	27
M. Dimmer(s) to control the intensity of light in the work area	_____	_____	_____	28
N. A telephone line	_____	_____	_____	29
O. A <u>business</u> telephone line	_____	_____	_____	30
P. Answering machine	_____	_____	_____	31
Q. Copy machine	_____	_____	_____	32
R. Control over heating and cooling in the work area	_____	_____	_____	33
S. Furniture especially designed for computer or office work	_____	_____	_____	34
T. Built-in storage space	_____	_____	_____	35
U. Acoustical device for the printer	_____	_____	_____	36
V. Bulletin or display board in the workspace	_____	_____	_____	37
W. Ceiling lighting	_____	_____	_____	38
X. Table or desk lamps	_____	_____	_____	39
Y. Yard space	_____	_____	_____	40
Z. A patio or balcony	_____	_____	_____	41
AA. A place to exercise in the home	_____	_____	_____	42
33. For the decor of the workspace, would you want the furnishings to look residential, office-like, or doesn't it matter?				
1. RESIDENTIAL				
2. OFFICE				46
3. DOESN'T MATTER				
34. What would be the size (i.e. square footage) of your ideal work space?				
(Convert to square feet: _____)				47-49

35. Where would be the ideal location of your work space in relation to other rooms of your home? That is, what rooms would you want close by?

50

51

52

What rooms would you want far away?

53

54

55

What rooms would you like to be able to see into from your workspace?

56

57

58

36. Is there anything else you would like in your ideal workspace that I haven't mentioned?

59-60

61-62

63-64

37. We are very interested in how people feel about their homes when they are used not only for residential purposes but also work purposes.

Some people feel a place is 'home' when it is a private place or refuge where they can get away from outside pressures and not be bothered. Others feel that a place is home if it gives them a sense of permanence and continuity. Some see their home as an expression of their self-identity, that it reflects their ideas and values. And others say a place is home when it allows for family and friends to be together.

Can you tell me how you feel about your home, and have those feelings changed or been reinforced since you started working at home?

38. Since you have been working at home, are there any household responsibilities that have been assigned to other household members or outside help that you were previously responsible for?

- 1. YES
- 2. NO

65

(IF YES): What are they, and to whom were they assigned?

WHO

ACTIVITY

66-67
68-69
70-71

39. Have you taken on any additional responsibilities that you previously did not do before working at home?

- 1. YES
- 2. NO

72

(If YES:) What are they?

73
74

40. Do you employ anyone who also works in your home, either for work, home or childcare?

- 1. YES
- 2. NO

75

(IF YES): How many people? _____ How many hours a week do they work here? _____

76
77-78

What do they do? _____

5-7

Where do they work in your home? _____

8-10

41. (IF APPLICABLE): Who takes care of the children while you are working? 11
- _____ 12
- _____ 13

Now I would like to ask you a few questions about the way you feel when you are working at home.

42. How many times a month, a week or a day, do you feel that your job and your household life interfere with each other? # _____/_____ 14-15
(Convert to # times a month: _____)

(IF MORE THAN ZERO:)

43. Can you give me a few examples of how your job and household life interfere with each other?

16-17
18-19
20-21
22-23

- CARD 44. For yourself, to what extent would you say that this amount is disruptive? 24
Please use this scale.

Very disruptive 1 2 3 4 5 Not disruptive at all

- CARD 45. (If applicable:) For other household members to what extent would you say 25
this amount is disruptive?

Very disruptive 1 2 3 4 5 Not disruptive at all

47. Have you made any of the following arrangements since you started working at home so these interferences are minimized?

Have you:

	<u>YES</u>	<u>NO</u>	<i>Explain if YES</i>	
Set times when others can call you on the phone	1	2	_____	26-27
Set times when others can talk to you	1	2	_____	28-29
Rescheduled home activities	1	2	_____	30-31
Rescheduled work activities	1	2	_____	32-33
Rescheduled times when other household members are at home	NA	1	2	_____ 34-35 36-37
Made sure you have a distinct work space from the rest of the home	1	2	_____	38-39
Restricted household members' access to certain rooms or areas of rooms for certain times of the day	NA	1	2	_____ 40-41
Eliminated doing certain activities (either you or other household members)	1	2	_____	42-43
Started doing certain activities (either you or other household members)	1	2	_____	44-45

CARD 48. In many households, people have to make adjustments when someone starts working at home. To what extent do you feel you have made adjustments? 46

A lot 1 2 3 4 5 Not at all

CARD 49. (IF APPLICABLE) To what extent do you feel others in your household have made adjustments? 47

A lot 1 2 3 4 5 Not at all

50. Do you do anything special before you start working for the day when you work at home?

1. YES
2. NO

(IF YES:) What do you do?
(PROMPTS: Do you dress up; go outside the house; walk the dog?)

49
50
51

CARD 52. When you are at home would you say your work activities and home life activities overlap in time or are they very distinct?
Please use this scale.

Much overlap 1 2 3 4 5 Very distinct 52

CARD 53. When you are at home would you say your work activities and home life activities overlap in physical space or are they very distinct?

Much overlap 1 2 3 4 5 Very distinct

53

CARD 54. Would you say mentally you feel your work role and home life role overlap or are they very distinct?

Much overlap 1 2 3 4 5 Very distinct.

54

CARD 55. Do any of the following activities take place in your work area?

			(IF YES) IS THIS:		(If at the same time); How disruptive is this?					
	YES	NO	At the same time you are working	When you are not working						
					Very much Not at all					
					1	2	3	4	5	
Food preparation	___	___	_____	_____	1	2	3	4	5	5-7
Entertaining guests	___	___	_____	_____	1	2	3	4	5	8-10
Eating meals	___	___	_____	_____	1	2	3	4	5	11-13
Family entertainment (T.V., music, etc.)	___	___	_____	_____	1	2	3	4	5	14-16
Sleeping	___	___	_____	_____	1	2	3	4	5	17-19
Laundry	___	___	_____	_____	1	2	3	4	5	20-22
Traffic movement	___	___	_____	_____	1	2	3	4	5	23-25
Children's play	___	___	_____	_____	1	2	3	4	5	26-28
Studying or homework	___	___	_____	_____	1	2	3	4	5	29-31
Reading non-work related material	___	___	_____	_____	1	2	3	4	5	32-34
Other _____	___	___	_____	_____	1	2	3	4	5	35-37

Finally, I would like to ask you some questions about your neighborhood. For the following questions, I would like you to think of your immediate block, that is the block you live on and the one facing it.

56. How many of the people living on your block do you know by sight? 38-39
(Get actual number) #: _____

Is this more, less, or about the same number of people you knew before you started working at home?

1. MORE
2. LESS
3. SAME

40

57. How many of the people living on your block do you know well enough to have a chat with when you meet? #: _____

41-42

Is this more, less, or about the same number of people you knew before you started working at home?

1. MORE
2. LESS
3. SAME

43

58. Do your neighbors ever ask you to conduct favors for them during the day while they are gone? Would you say:

- 1. Often
- 2. Sometimes
- 3. Rarely
- 4. Never

44

(IF OFTEN OR SOMETIMES): What type of favors are you asked to do?
(PROMPTS: receive packages from post office, UPS, babysit)

45

46

47

CARD 59. How attentive are you to activities happening on your block while you are working at home? Please use this scale:

48

Never pay attention 1 2 3 4 5 Always aware

CARD 60. Suppose one day while you are working that a neighbor were to stand outside on your block, either on the street or in an alley, for 5 minutes. On this scale how likely would you be to notice this person on the street while you were inside working?

Very likely 1 2 3 4 5 Very unlikely

49

(If applicable): On the alley?

Very likely 1 2 3 4 5 Very unlikely

50

CARD 61. Suppose one day while you are working that a person were to stand outside on your block either on the street or in an alley, for 5 minutes. How likely would you be to recognize whether this person on the street is a stranger or a neighbor?

Very likely 1 2 3 4 5 Very unlikely

51

(If applicable): In the alley?

Very likely 1 2 3 4 5 Very unlikely

52

62. About how much time do you spend outdoors, either on your own property or on the block, during:

Weekday mornings until noon? # _____ hours _____ minutes (total min: _____)

53-55

Weekday afternoons until 6 pm? # _____ hours _____ minutes (total min: _____)

56-58

Weekday evenings after 6 pm? # _____ hours _____ minutes (total min: _____)

59-61

Weekends? # _____ hours _____ minutes (total min: _____)

62-64

CARD 63. We are interested in what neighborhood facilities and services people who work at home need close by. Here is a list of facilities and amenities. Please indicate how important it is for you to have each one in your neighborhood, that is within a 15-minute walking distance from your home.

	<u>Importance</u>			<u>Change</u>			
	Very impor- tant (1)	Some what impor- tant (2)	Not at all impor- tant (3)				
Bus stop	_____	_____	_____	I	D	N	5-6
Children's play- ground	_____	_____	_____	I	D	N	7-8
Convenience store	_____	_____	_____	I	D	N	9-10
Copy center	_____	_____	_____	I	D	N	11-12
Daycare center or nursery	_____	_____	_____	I	D	N	13-14
Drug store	_____	_____	_____	I	D	N	15-16
Dry cleaning services	_____	_____	_____	I	D	N	17-18
Fast food res- taurant	_____	_____	_____	I	D	N	19-20
Friends' houses	_____	_____	_____	I	D	N	21-22
Gasoline service station	_____	_____	_____	I	D	N	23-24
Gymnasium, health club, or recreation center	_____	_____	_____	I	D	N	25-26
Laundromat	_____	_____	_____	I	D	N	27-28
Library	_____	_____	_____	I	D	N	29-30
Movie theater	_____	_____	_____	I	D	N	31-32
Nightclub or bar	_____	_____	_____	I	D	N	33-34
Office supply shop	_____	_____	_____	I	D	N	35-36
Park	_____	_____	_____	I	D	N	37-38
Post office	_____	_____	_____	I	D	N	39-40
Quiet place to walk or sit outdoors	_____	_____	_____	I	D	N	41-42

Restaurant or cafe	_____	_____	_____	I D N	43-44
School (elementary/secondary)	_____	_____	_____	I D N	45-46
Swimming pool	_____	_____	_____	I D N	47-48
Supermarket	_____	_____	_____	I D N	49-50
Location of home convenient to downtown	_____	_____	_____	I D N	51-52
Friendly neighbors	_____	_____	_____	I D N	53-54
Peaceful and quiet	_____	_____	_____	I D N	55-56
Clean and uncluttered	_____	_____	_____	I D N	57-58
Privacy, where neighbors leave you alone	_____	_____	_____	I D N	59-60
Good walking conditions	_____	_____	_____	I D N	61-62
Prestige of area	_____	_____	_____	I D N	63-64
Pleasant view from home	_____	_____	_____	I D N	65-66

69. Now for each of these can you tell me whether its importance has increased, decreased or stayed the same since you started working at home?

Thank you very much. Here is an additional set of questions which you can complete by yourself. It will take about 5 to 10 minutes. During this time I will draw a picture of your workspace. If you have any questions, please ask me.

	Activity	At home	Other people at home
12 MIDNIGHT			
12:30 A.M.			
1:00 A.M.			
1:30 A.M.			
2:00 A.M.			
2:30 A.M.			
3:00 A.M.			
3:30 A.M.			
4:00 A.M.			
4:30 A.M.			
5:00 A.M.			
5:30 A.M.			
6:00 A.M.			
6:30 A.M.			
7:00 A.M.			
7:30 A.M.			
8:00 A.M.			
8:30 A.M.			
9:00 A.M.			
9:30 A.M.			
10:00 A.M.			
10:30 A.M.			
11:00 A.M.			
11:30 A.M.			

	Activity	At home	Other people at home
12 NOON			
12:30 P.M.			
1:00 P.M.			
1:30 P.M.			
2:00 P.M.			
2:30 P.M.			
3:00 P.M.			
3:30 P.M.			
4:00 P.M.			
4:30 P.M.			
5:00 P.M.			
5:30 P.M.			
6:00 P.M.			
6:30 P.M.			
7:00 P.M.			
7:30 P.M.			
8:00 P.M.			
8:30 P.M.			
9:00 P.M.			
9:30 P.M.			
10:00 P.M.			
10:30 P.M.			
11:00 P.M.			
11:30 P.M.			

Respondent's I.D. _____

Appendix C

DISTRIBUTION OF RESPONSES TO FAMILY ENVIRONMENT ITEMS

	<u>Strongly Agree</u>	<u>Slightly Agree</u>	<u>Not at All</u>
<i>Household activities carefully planned</i>	19.6%	53.9	26.5
<i>Neat and orderly in household</i>	35.3%	51.0	13.7
<i>Hard to find things in household</i>	3.9%	45.1	51.0
<i>Duties clearly defined in household</i>	29.3%	51.5	19.2
<i>Inflexible roles in household</i>	15.8%	27.7	56.4
<i>Emphasis following rules in household</i>	19.8%	39.6	40.6
<i>Set way of doing things in household</i>	19.8%	49.5	30.7
<i>Few rules to follow in household</i>	30.7%	44.6	24.8

Appendix D

OCCUPATIONS OF HOMEWORKERS

	<u>Number</u>
Computer Consultant: Software or Hardware	5
Computer Programmer	2
Computer System Trainer	3
Computer Documenter	1
Computer Reseller and Distributor	2
Computer Game Developer	1
Database Archivist	1
Planner	1
Clinical Psychologist	1
Clergy	1
College Professor	2
Daycare Director	1
Real Estate Broker	1
Antique Appraiser	1
Housing Inspector	1
Escrow Agent	3
Novelist	1
Freelance Writer-Editor	21
Public Relations Agent	6
Journalist	1
Technical Writer	1
Magazine Publisher	1
Audio-Visual Film Scriptwriter	3
Radio, Video Producer	2
Communications Consultant	1
Health Care Consultant	1
Management Consultant	5
Office Manager, 1 Firm	2
Executive Director, Multiple Firms	2
Personnel Search (Headhunter)	1
Product Distributor	1
Direct Mail and Bindery Services	2
Sales Representative	1
Researcher	2
Accountant, Bookkeeper	1
Data Entry Supervisor	1
Medical Transcribers	5
Phone Sales Operators	8
Word Processing or Typing Services	13
Professional Paper Organizer	1
Printing and Copy Services	2
Greeting Card Maker	1
Clothing Designer	1
Seamstress	1
Quilter	1
Jack-of-all Trades	<u>1</u>

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*Some homeworkers had more than 1 homebased occupation

Appendix E

DISTRIBUTION OF RESPONSES OF JCI ITEMS

	<u>Very Little</u>	<u>Moderate</u>	<u>Very Much</u>
<u>Autonomy</u>			
Left on own to do work	1.0%	9.7	89.3
Act independently of supervisor	7.4%	2.1	90.5
Work independently of others	1.9%	8.7	89.3
Control over pace of work	9.7%	14.6	75.7
<u>Task Identification</u>			
See jobs through to completion	4.9%	5.8	89.3
See jobs from beginning to end	5.8%	12.6	81.6
<u>Feedback</u>			
Told how well you're doing as you're working	64.1%	26.2	9.7
<u>Friendship</u>			
Opportunity to meet others to develop friendships	40.8%	45.6	13.6
Opportunity to talk to others	11.7%	56.3	32.0
<u>Work with Others</u>			
Job depends on ability to work with others	30.1%	40.8	29.1
Dealing with other people	6.8%	41.7	51.5
Give help to other people	11.7%	38.8	49.5
<u>Variety</u>			
Repetitious duties	38.8%	35.9	25.2
Similar tasks performed each day	26.2%	38.8	35.0
Opportunity to do a number of different things	12.6%	26.2	61.2

Appendix F

AVERAGE HOURS ENGAGED IN SPECIFIC ACTIVITIES, FOR DIFFERENT
HOUSEHOLD OCCUPANCIES, GENDER

<u>Activity</u>	<u>Sample</u>	<u>Solos</u>	<u>Adults Only</u>	<u>Full Nest</u>	<u>Single Parents</u>	<u>Men</u>	<u>Women</u>	<u>With Pre- schoolers</u>
<i>Exclusively:</i>								
Working	8.1	8.7	8.3	7.8	8.6	9.6	7.6	8.0
House or Child Care	1.5	.4	1.3	2.2	1.8	.5	2.1	2.3
Leisure or Exercise	2.9	3.8	3.5	2.5	1.8	2.2	3.2	2.2
Non-Work Travel	.2	0	.2	.2	.2	.1	.2	.1
Sleeping	7.7	7.6	7.7	7.7	7.6	7.5	7.7	7.7
Eating	1.2	1.3	1.5	1.2	.4	1.3	1.2	1.3
<i>Working and</i>								
Eating	.2	0	.4	0	.5	.1	.2	0
Leisure or Exercise	.4	.7	.2	.6	0	1.0	.3	.2
House or Child Care	.2	.3	.2	.2	0	.2	.2	.6
<i>House or Child Care and:</i>								
Eating	.1	0	0	.2	.3	.1	.1	.2
Leisure or Exercise	.3	0	.1	.4	1.5	.2	.3	.9
<i>Leisure and either Eating, Traveling, Sleeping</i>								
	.2	.3	.2	.2	.4	.2	.2	.1
<i>Other Activity or Combination than Those Above</i>								
	<u>1.0</u>	<u>.9</u>	<u>.4</u>	<u>.8</u>	<u>.9</u>	<u>1.0</u>	<u>.7</u>	<u>.4</u>
	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
(n)	(96)	(14)	(28)	(49)	(5)	(25)	(71)	(19)

Appendix G

PERCENTAGE OF HOMEWORKERS ENGAGED IN WORK OR DOMESTIC CHILDCARE ACTIVITIES, AT SELECT TIMES

<u>For Work:</u>	<u>Sample</u>	<u>Solos</u>	<u>Adults Only</u>	<u>Full Nest</u>	<u>Single Parents</u>	<u>Men</u>	<u>Women</u>
Midnight - 5:30	14.6%	28.6%	3.6%	16.3%	20.0%	16.0%	14.1%
6:00 am - 11:30 am	93.7	78.6	100.0	93.9	100.0	96.0	93.0
Noon - 5:30 pm	97.9	100.0	96.4	98.0	100.0	100.0	97.2
6:00 pm - 8:30 pm	57.3	85.7	64.3	46.9	40.0	80.0	49.3
9 pm - 11:30 pm	42.7	28.6	46.4	42.9	60.0	68.0	33.8
(n)	(96)	(14)	(28)	(49)	(5)	(25)	(71)

(Appendix G: 2 of 4)

<u>For Work:</u>	<u>Decreased Time Conflict</u>	<u>No Difference Time Conflict</u>	<u>Increased Time Conflict</u>	<u>With Pre- Schooler</u>	<u>Much Time Overlap</u>	<u>Much Time Distinction</u>
Midnight - 5:30	31.2%	8.6%	15.2%	26.3%	26.1%	5.1%
6 am - 11:30 am	81.2	91.4	93.9	94.7	92.6	92.3
Noon - 5:30 pm	93.7	94.3	90.9	100.0	95.7	94.9
6:00 pm - 8:30 pm	50.0	62.9	54.5	47.4	69.6	38.5
9 pm - 11:30 pm	37.5	48.6	42.4	42.1	60.9	30.8
(n)	(16)	(35)	(33)	(19)	(23)	(39)

(Appendix G: 3 of 4)

<u>For Domestic/ Childcare</u>	<u>Sample</u>	<u>Solos</u>	<u>Adults Only</u>	<u>Full Nest</u>	<u>Single Parents</u>	<u>Men</u>	<u>Women</u>
Midnight - 5:30	1.0%	0.0%	0.0%	2.0%	0.0%	0.0%	1.4%
6 am - 11:30 am	49.0	28.6	46.4	55.1	60.0	24.0	57.7
Noon - 5:30 pm	53.1	21.4	42.9	67.3	60.0	24.0	63.4
6:00 pm - 8:30 pm	43.7	7.1	39.3	55.1	60.0	20.0	52.1
9 pm - 11:30 pm	12.5	0.0	3.6	18.4	40.0	4.0	15.5
(n)	(96)	(14)	(28)	(49)	(5)	(25)	(71)

<u>For Domestic/ Childcare</u>	<u>Decreased Time Conflict</u>	<u>No Difference Time Conflict</u>	<u>Increased Time Conflict</u>	<u>With Pre- Schooler</u>	<u>Much Time Overlap</u>	<u>Much Time Distinction</u>
Midnight - 5:30	6.32%	0.0%	0.0%	0.0%	0.0%	2.6%
6 am - 11:30 am	37.5	45.7	60.6	63.2	39.1	46.2
Noon - 5:30 pm	50.0	57.1	60.6	68.4	56.5	48.7
6:00 pm - 8:30 pm	43.7	37.1	54.5	63.2	39.1	38.5
9 pm - 11:30 pm	6.2	11.4	21.2	10.5	13.0	15.4
(n)	(16)	(35)	(33)	(19)	(23)	(39)

Appendix H

WORK TIME DIFFERENCES FOR HOUSEHOLD OCCUPANCY, TIME OVERLAP, AND GENDER

Number of Work Periods a Day Working with Others in Home:

	<u>Mean</u>	<u>S.D.</u>	<u>n.</u>	
Much time overlap between work and home	10.5	10.06	22	
Time distinction between work and home	6.1	6.31	38	$F(1,58)=4.34, p<.05$
Solos	2.50	4.45	14	
Adults Only	5.25	6.88	28	
Full Nest	9.04	8.06	49	
Single Parents	3.04	4.10	5	$F(3,92)=4.07, p<.01$
Men	9.24	7.43	25	
Women	5.79	7.38	71	$F(1,94)=4.03, p<.05$

Proportion of Work Time with Others at Home:

Much time overlap between work and home	.59	.44	21	
Time distinction between work and home	.45	.44	38	$F(1,57)=1.34, s.d.$
Solos	.15	.26	14	
Adults Only	.29	.34	28	
Full Nest	.66	.42	47	
Single Parents	.18	.19	5	$F(3,90)=10.91, p<.0001$
Men	.66	.39	23	
Women	.38	.41	71	$F(1,92)=8.05, p<.005$

Number of Work Periods at Home

Solos	15.00	6.16	14	
Adults Only	15.36	7.06	28	
Full Nest	13.24	6.68	49	
Single Parents	16.20	4.21	5	$F(3,92)=84, n.s.$
Men	14.48	8.10	25	
Women	14.20	6.08	71	$F(1,94)=.03, n.s.$

Number of Total Work Periods

Solos	19.29	5.53	14	
Adults Only	18.07	5.74	28	
Full Nest	17.41	7.14	49	
Single Parents	19.20	7.73	5	$F(3,92)=.37, n.s.$
Men	22.00	5.62	25	
Women	16.55	6.23	71	$F(1,94)=14.87, p<.001$

Appendix I

PERCENTAGE OF HOMEWORKERS ENGAGED IN SPECIFIED ACTIVITIES
FOR EACH HALF-HOUR TIME PERIOD

SOLOS

	W	H/C	L	T	S	E	W&H	W&O	H&O	L&O	R	3+	NL
Midnight	21		7		71								
0:30	21		7		71								
1:00	14				86								
1:30	7		7		86								
2:00	7				93								
2:30	7				93								
3:00	7				93								
3:30	7				93								
4:00	7				93								
4:30	7				93								
5:00					100								
5:30	7				93								
6:00	7		7		64	21							
6:30	7	21	14	7	36	7							7
7:00	21	7	21		36	7							7
7:30	21	14	21		36	7							
8:00	36	7	14		21	14				7			
8:30	57		21		21								
9:00	71		7		21								
9:30	71		7		14								7
10:00	71		14		7								7
10:30	64		14		7								14
11:00	71		7		7								14
11:30	64		7		7	14							7
12:00	43				7	43		7					
12:30	50		14		7	14		7					7
13:00	64		14					7	7	7			
13:30	64	7	7			7		7		7			
14:00	57	7				7		7		7			14
14:30	64					7	7	7					14
15:00	71						7	7					14
15:30	64		7			7	7	7					7
16:00	64	7					7	14					7
16:30	71		7				7	14					
17:00	57		7			7	7	14		7			
17:30	36		21			14	7	14		7			
18:00	50		21			7		14		7			
18:30	57		21			7		14					
19:00	50		29			21							
19:30	43	7	36			14							
20:00	29	7	43			14							7
20:30	21		50			14				7			7
21:00	29		57			7							7
21:30	14		71		7								7
22:00	14		64		14								7
22:30	14		43		36								7
23:00	14		36		43								7
23:30	14		29		50								7

(Appendix I: 2 of 8)

ADULTS ONLY

	W	H/C	L	T	S	E	W&H	W&O	H&O	L&O	R	3+	NL
Midnight	4		7		89								
0:30	4		4		93								
1:00					100								
1:30					100								
2:00					100								
2:30					100								
3:00					100								
3:30					100								
4:00					100								
4:30					100								
5:00					100								
5:30					93					4			4
6:00	4				75	11				4			7
6:30	4	7	18		50	7				7			7
7:00	4	7	25		32	18			4	4			7
7:30	11	14	25		29	11		4		4			4
8:00	21	25	14		14	11			7		4		4
8:30	50	21	7		7	4		4					7
9:00	75	7	7			4	4						4
9:30	93					4		4					
10:00	93							4	4				
10:30	93							4	4				
11:00	89					4		4	4				
11:30	93								7				
12:00	43		4			32		14		7			
12:30	39		4			32		14		7			4
13:00	68	4	4			18		7					
13:30	82		4	4		7		4					
14:00	82		4	4		7		4					
14:30	79		4	4		4		7					4
15:00	82	4	4			4		4					4
15:30	79	4	4	4		4		4					4
16:00	68	4	21	4		4							
16:30	64	11	21	4									
17:00	32	32	21	4		11							
17:30	25	25	25	4		18	4						
18:00	14	21	18			32	4		4	4			4
18:30	11	21	18	4		29	4	4	7	4			
19:00	21	14	43	7		4	4		4				4
19:30	25	11	54			7							4
20:00	36	11	43			7							4
20:30	46	4	39			4		4					4
21:00	36		57					4					4
21:30	32		61					4					4
22:00	25	4	64					4					4
22:30	18	4	36		36			4					4
23:00	11		21		61								7
23:30	11		18		64								7

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FULL NEST

	W	H/C	L	T	S	E	W&H	W&O	H&O	L&O	R	3+	NL
Midnight	8		4		84								4
0:30	6		8		86								
1:00	6		2		92								
1:30	4		2		92								2
2:00	4		2		94								
2:30	4				96								
3:00	2				98								
3:30	2				98								
4:00	4				96								
4:30	4				96								
5:00	4				92	2							2
5:30	8	2	2		84	2							2
6:00	8	4	6		74	2			2				4
6:30	12	10	4		63	2		2					6
7:00	16	18			37	12		2	6			2	6
7:30	18	29			22	14		2	4			2	8
8:00	31	31	4	2	6	16		2	2	2			4
8:30	47	22	10	2	6	4		2	4				2
9:00	67	18	4		2	6		2					
9:30	76	10	6	2	2	2		2					
10:00	84	6	4				2	2		2			
10:30	78	6	6				2	2		4			2
11:00	76	10		2		4	2	2	2	2			
11:30	71		10			6	4	4	2	2			
12:00	43	2	4			4	31	4	2	8	2		
12:30	43	12	6	2	2	25	4	2	2	2			
13:00	63	6	6	4	2	12	4	2					
13:30	74	6	8	4			2	4	2				
14:00	76	4	11				4	2	2	2			
14:30	78	2	10		2		4	2	2				
15:00	69	6	6	6	2	2	4	2	2				
15:30	61	16	6	4	2		4	2	2				2
16:00	59	18	6	4	2		2	2	2	2			2
16:30	49	22	10	8	2			2	4				2
17:00	43	27	6		2	10		2	6	2			2
17:30	27	39	6			20		2	6				
18:00	18	27	8			29		4	10				4
18:30	18	29	14	2		12		4	10	4			6
19:00	20	18	22		4	8		6	12	2			6
19:30	22	20	27		2	6		6	10	2			4
20:00	27	16	31	2	2			6	8	2			6
20:30	29	12	33	2	2			8	6				8
21:00	29	10	33	2	6			8	6				6
21:30	22	6	45		6			10	6				4
22:00	22	2	45		14			10	4				2
22:30	12	2	45		29			6	2				4
23:00	12		20		61			4					2
23:30	12		10		74			4					

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SINGLE PARENTS

	W	H/C	L	T	S	E	W&H	W&O	H&O	L&O	R	3+	NL
Midnight			20		80								
0:30			20		80								
1:00					100								
1:30					100								
2:00					100								
2:30					100								
3:00					100								
3:30					100								
4:00					100								
4:30	20				80								
5:00	20				80								
5:30	20				80								
6:00	20				80								
6:30	20				80								
7:00	20				60				20				
7:30	20				40	20			20				
8:00	40	20			20				20				
8:30	20	60			20								
9:00	60	20			20								
9:30	60	20								20			
10:00	60	20								20			
10:30	100												
11:00	100												
11:30	100												
12:00	60		20					20					
12:30	60		20					20					
13:00	60							20		20			
13:30	40					20		20		20			
14:00	60							40					
14:30	80							20					
15:00	60		20					20					
15:30	40	20						20	20				
16:00	40	20						20	20				
16:30	40	40							20				
17:00	40	40							20				
17:30	20	20			20	20							20
18:00	20		20		20				20			20	
18:30	20		20		20				20			20	
19:00	20	20	20						20			20	
19:30	20	20		20					40				
20:00	40		20	20					20				
20:30	40		40						20				
21:00	60		20						20				
21:30	60	20							20				
22:00	40	20				20			20				
22:30	40		40						20				
23:00	40		40		20								
23:30	40		40		20								

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WITH PRESCHOOLERS

	W	H/C	L	T	S	E	W&H	W&O	H&O	L&O	R	3+	NL
Midnight	5				90								5
0:30	5		5		90								
1:00	5		5		90								5
1:30			5		90								
2:00	5		5		90								
2:30	5				95								
3:00	5				95								
3:30	5				95								
4:00	10				90								
4:30	16				84								
5:00	16				74	5							5
5:30	21				68	5							5
6:00	21	11			58								11
6:30	26	21			42								11
7:00	32	21			26	5			11				5
7:30	26	32			16	21			5				
8:00	47	26			11	11			5				
8:30	58	16	5	5	11	5							
9:00	63	21	5		5	5							
9:30	79	11	5		5								
10:00	79	11	5				5						
10:30	74	5	11				5						5
11:00	68		16	5			5		5				
11:30	63		16			5	11		5				
12:00	26	5			5	37	11		16				
12:30	26	21	5			37	11						
13:00	63	5	11			11	11						
13:30	79	5	5				11						
14:00	74		11				11		11				
14:30	63		16		5		11		5				
15:00	58	5	11		5	5	11		5				
15:30	47	21	5		5		5		11				5
16:00	53	11	11		5		5		11	5			
16:30	37	16	26	5	5				11				
17:00	32	21	16	5	5				16	5			
17:30	16	32	16		5	26			5				
18:00	16	21	11			37			16				
18:30	16	32	16			16			16				5
19:00	16	21	11		11	11			26				5
19:30	21	26	16		5	5			26				
20:00	32	26	21		5				16				
20:30	42	16	21		5			5	11				
21:00	37		26		16			5	11				5
21:30	32		32		16			5	11				5
22:00	32		32		21			5	11				
22:30	21		21		42			5	5				5
23:00	16		5		74			5					
23:30	16		5		74			5					

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PERCEIVED TIME OVERLAP OF WORK AND HOME

	W	H/C	L	T	S	E	W&H	W&O	H&O	L&O	R	3+	NL
Midnight	18		9		64								9
0:30	14		18		68								
1:00	9		5		86								
1:30	5		9		86								
2:00	5		5		90								
2:30	5				95								
3:00	5				95								
3:30	5				95								
4:00	5				95								
4:30	5				95								
5:00					95	5							
5:30	9				91								
6:00	9		5		82								51
6:30	14		5		77								5
7:00	23	9	5		55	5			5				
7:30	23	14	5		55	5							
8:00	23	18			27	18			5	5	5		
8:30	36	18	14	5	23	5							
9:00	59	9	9		18	5							
9:30	68	5	9		9				5				5
10:00	73	5	5		5		5			5			5
10:30	77	5	5		5		5						5
11:00	77		5	5	5		5						5
11:30	68		9		5		5	5	5				5
12:00	41		5		5	36	5						9
12:30	41	9	14	5	5	18	5	5					
13:00	55	5	14	5	9		5		5		5		
13:30	50	9	14	5	9		5			9			
14:00	64	9	5			5	5	5		5			5
14:30	82							9	5				5
15:00	73			5		5	9	5					5
15:30	68	5		9			5	5					9
16:00	46	14	9	9			5	9		5			5
16:30	41	18	18	9			5	5					5
17:00	36	27	14				5	5		5	5		5
17:30	32	32	9		5		5	5	5	5			5
18:00	27	5	14		5	18	5	5	9	5			9
18:30	27	23	9	5	5		14		9	5			5
19:00	46	18	18	5	9				5				
19:30	55	27	14						5				
20:00	55	18	14						5				9
20:30	50	9	27					5					9
21:00	46	9	32					5					9
21:30	36	5	41					9					9
22:00	36		41			5		9					9
22:30	27		50			5		9					9
23:00	23		46			14		9					9
23:30	23		36			27		9					5

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DISTINCT WORK AND HOME TIME

	W	H/C	L	T	S	E	W&H	W&O	H&O	L&O	R	3+	NL
Midnight	2		8		90								
0:30	3		5		92								
1:00	3				97								
1:30	3				97								
2:00					100								
2:30					100								
3:00					100								
3:30					100								
4:00					100								
4:30					100								
5:00					97								3
5:30	3	3			87	3				3			2
6:00	3	5			74	8			3	3			5
6:30	5	11	8		53	8		3		3			11
7:00	5	13	11		32	16		3	3	3		3	13
7:30	11	24	8		13	21		3	3	3		3	13
8:00	32	32	11	3	8	5		5					5
8:30	53	21	8		5			3	5				5
9:00	76	13	5					3					3
9:30	84	5	3			5		3					
10:00	90	3	3					5					
10:30	87	3	3					5		3			
11:00	87		5			3		5					
11:30	84		5			5		5					
12:00	47		3		3	34		10	3				
12:30	53	5	5		3	24		8		3			
13:00	76	3	3	3	3	5		8					
13:30	84	3	5	3				5					
14:00	82	3	5			3		5		3			
14:30	82	3	5			3		5	3				
15:00	82	5	3	5				3	3				
15:30	68	16	3	3			3	3	3				
16:00	74	18	3					3	3				
16:30	61	24	8	3				3	3	3			
17:00	47	24	11			13		3	3				
17:30	29	24	16			21	3	3	5				
18:00	18	24	16			29	3		5	3			3
18:30	16	24	26	3		13	3	3	3	5			5
19:00	16	13	40		3	5	3	3	5	3			11
19:30	13	11	47	3		11		3	3	3			8
20:00	21	8	47	3		5		3	3	3			8
20:30	24	8	53	3				3	3				8
21:00	24	8	53		3			3	3				8
21:30	16	8	63		3			3	3				5
22:00	16	8	58		11			3	3				3
22:30	8	5	50		34								3
23:00	5		21		71								3
23:30	5		11		82								3

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W: Exclusively Working
H/C: Exclusively Domestic or Child Care
L: Exclusively Leisure or Exercise
T: Exclusively Non-Work Related Travel
S: Exclusively Sleeping
E: Exclusively Eating
W+H: Working and Domestic/Childcare
W+O: Working and Other Activity
H+O: Domestic/Childcare and Other Activity
L+O: Leisure/Exercise and Other Activity
R: All Other Dual Combinations
3+: Three Activities
NL: Not Listed

Appendix J

PERCENTAGE OF HOMEWORKERS WITH OTHERS AT HOME, FOR EACH HALF-HOUR TIME PERIOD

	Solos				Adults Only				Single Parents				With Preschoolers			
	RO	R	O	X	RO	R	O	X	RO	R	O	X	RO	R	O	X
Midnight		86		14	86	14			60	40			90	5	5	
0:30		86		14	82	14	4		60	40			95	5		
1:00		93		7	82	14	4		60	40			95	5		
1:30		93		7	82	14	4		60	40			90	5	5	
2:00		93		7	82	14	4		60	40			90	5	5	
2:30		93		7	82	14	4		60	40			90	5	5	
3:00		93		7	82	14	4		60	40			90	5	5	
3:30		93		7	82	14	4		60	40			90	5	5	
4:00		93		7	82	14	4		60	40			90	5	5	
4:30		93		7	82	14	4		60	40			90	5	5	
5:00		93		7	82	14	4		60	40			90	5	5	
5:30		93		7	82	14	4		60	40			90	5	5	
6:00		79		21	75	18	7		60	40			84	5	5	5
6:30		71		29	68	21	11		60	40			84	5	5	5
7:00		86		14	54	36	4	7	80	20			84	5	5	5
7:30	7	79		14	43	43	4	11	60	40			84	11		5
8:00	7	71		22	25	64	4	7	60	40			84	11		5
8:30	7	71		22	21	68	4	7	20	60	20		63	11	16	11
9:00	7	71		22	21	68	4	7	80	20			58	11	21	11
9:30	7	64		29	11	79	4	7	80	20			53	16	21	11
10:00	7	57	7	29	14	68	4	14	80	20			47	21	21	11
10:30	7	50	7	36	11	75	4	11	80	20			42	21	26	11
11:00	14	50		36	14	71	4	11	60	20		20	47	26	21	5
11:30	7	57		36	14	68	4	14	60	20		20	58	26	16	
12:00	7	71		21	11	68	4	18	20	40		40	68	21	11	
12:30	7	71		21	11	68	4	18	20			40	63	26	11	
13:00	14	57		29	14	64	4	18	20	40		40	53	26	11	11
13:30	7	57		36	11	64	4	21	20	60		20	47	26	16	11
14:00	14	43		43	18	61		21	20	60		20	47	21	26	5
14:30	14	50		36	14	61	4	21	20	60		20	47	32	21	
15:00	14	43		43	18	61	7	14	20	60		20	47	32	21	
15:30	14	36		50	25	54	7	14	20	40	20	20	42	26	26	5
16:00	21	43		36	25	50	11	14	40	20	20	20	47	21	16	16
16:30	21	50		29	25	43	11	21	60		20	20	47	5	16	32
17:00	14	43		43	39	32	7	21	60			40	58	5	11	26
17:30	14	50		36	43	36	7	14	62	20		20	68	11	11	11
18:00	7	64	7	21	57	32	4	7	40	40		20	79	11	11	
18:30	7	64	7	21	68	25	4	4	40	40		20	79	5	11	5
19:00	14	64		21	57	18	14	11	40	40		20	79	5	11	5
19:30	14	64		21	64	11	18	7	40	40		20	79	5	16	
20:00	7	64		29	64	11	18	7	40	40		20	79	5	16	
20:30	7	57		36	68	11	14	7	60	40			84	5	11	
21:00	7	71		21	64	11	18	7	60	40			84	5	11	
21:30		71		29	64	11	18	7	60	40			90	5	5	
22:00		71		29	64	14	18	4	60	40			90	5	5	
22:30		71		29	79	14	7		60	40			90	5	5	
23:00		71		29	75	14	11		60	40			90	5	5	
23:30		71		29	75	14	11		60	40			90	5	5	

(n)

(14)

(28)

(5)

(19)

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	Entire Sample				Much Time Overlap				Much Time Distinction				Full Nest			
	RO	R	O	X	RO	R	O	X	RO	R	O	X	RO	R	O	X
Midnight	76	19	2	3	59	27	9	5	90	10			94		4	2
0:30	76	19	2	3	64	32	5		90	10			96	2	2	
1:00	77	21	1	1	68	32			90	10			98	2		
1:30	76	21	2	1	68	32			90	10			96	2	2	
2:00	76	21	2	1	68	32			90	10			96	2	2	
2:30	76	21	2	1	68	32			90	10			96	2	2	
3:00	76	21	2	1	68	32			90	10			96	2	2	
3:30	76	21	2	1	68	32			90	10			96	2	2	
4:00	76	21	2	1	68	32			90	10			96	2	2	
4:30	76	21	2	1	68	32			90	10			96	2	2	
5:00	76	21	2	1	68	32			90	10			96	2	2	
5:30	76	21	2	1	68	32			90	10			96	2	2	
6:00	71	20	5	4	64	32		4	84	11	3	3	90	2	6	2
6:30	69	20	6	5	64	32		4	82	11	5	3	90	2	6	2
7:00	65	28	2	5	59	41			74	18		8	88	8	2	2
7:30	58	33	1	7	59	41			68	21		11	82	14		4
8:00	48	42	2	8	68	32			50	40	2	8	71	20	2	6
8:30	39	47	4	10	55	36		9	45	42	3	11	60	27	4	10
9:00	33	53	5	8	55	36		9	40	50	5	5	51	37	6	6
9:30	27	56	5	12	46	41		14	29	61	5	5	45	39	6	10
10:00	26	51	7	16	41	41		14	26	53	8	13	41	37	8	14
10:30	23	53	8	16	41	36	5	18	24	58	8	11	37	39	10	14
11:00	26	51	6	17	41	36		23	26	58	5	11	39	39	8	14
11:30	27	51	5	17	46	36		18	26	58	5	11	43	39	6	12
12:00	26	53	5	16	50	36		14	21	61	11	8	41	41	8	10
12:30	22	54	6	18	41	36	5	18	16	63	11	11	33	43	10	14
13:00	23	49	6	22	36	32	5	27	16	58	11	16	31	39	10	20
13:30	20	48	7	25	32	36	5	27	11	58	13	18	29	35	12	25
14:00	25	47	8	20	46	32	5	18	16	53	13	18	33	39	16	12
14:30	25	48	9	18	46	36	5	14	16	55	13	16	35	39	16	10
15:00	28	40	13	20	50	27	9	14	21	45	16	18	39	25	20	16
15:30	33	33	12	22	46	27	5	23	32	34	16	18	45	20	16	18
16:00	40	30	12	19	50	18	9	23	40	34	11	16	53	16	14	16
16:30	43	24	10	23	55	5	9	32	45	24	11	21	57	8	12	22
17:00	51	20	7	22	64	9		27	53	21	8	18	67	8	10	14
17:30	58	22	6	14	64	9	9	18	61	24	5	11	80	6	8	6
18:00	64	23	6	7	64	18	5	14	71	18	3	8	86	4	8	2
18:30	66	19	7	8	73	14	5	9	68	13	5	13	84		10	6
19:00	62	17	13	9	73	14	5	9	61	13	11	16	80		16	4
19:30	63	15	16	7	77	14	5	5	58	11	21	11	78		20	2
20:00	60	15	16	9	68	14	9	9	61	11	18	11	76		20	4
20:30	65	14	13	9	68	14	9	9	68	8	13	11	80		16	4
21:00	66	16	13	6	68	14	9	9	74	11	11	5	84		14	2
21:30	69	16	9	6	73	14	5	9	79	11	5	5	92		8	
22:00	69	17	9	5	73	14	5	9	79	13	5	3	92		8	
22:30	73	18	5	4	73	14	5	9	82	13	3	3	92	2	6	
23:00	72	18	6	4	73	14	5	9	82	13	3	3	92	2	6	
23:30	72	18	6	4	73	14	5	9	82	13	3	3	92	2	6	

(n)

(96)

(22)

A50

(38)

(49)

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RO: Respondent and Other(s) at Home
R: Only Respondent at Home
O: Only Other(s) at Home
X: No One at Home

Appendix K

PERCENTAGE OF HOMEWORKERS STRONGLY DESIRING NEIGHBORHOOD
AMENITY WITHIN 10-15 MINUTE WALK

80.4%	Peaceful and Quiet
75.5	Clean and Unlittered
61.8	Post Office
61.8	Quiet Place to Walk
60.8	Pleasant View
60.8	Privacy Where Neighbors Leave You Alone
57.8	Friendly Neighbors
54.9	Good Walking Conditions
53.9	Supermarket
48.0	Copy Center
37.0	Convenience to Downtown
36.3	Gasoline Station
34.3	Bus Stop
33.3	Library
32.4	Convenience Store
32.4	Drug Store
32.4	Park
31.4	Friend's Houses
30.4	Office Supply Store
26.5	Child's Playground
25.5	Dry Cleaners
24.8	School
21.6	Gym, Health Center, Recreation Center
16.7	Prestige
16.7	Restaurant
15.7	Fast Food
11.8	Swimming Pool
11.9	Laundromat
11.9	Daycare Center
10.8	Movie Theater
2.0	Nightclub

Appendix L

PERCENTAGE OF HOMEWORKERS EXPRESSING INCREASED IMPORTANCE
IN NEIGHBORHOOD AMENITIES SINCE WORKING AT HOME

<u>Facilities and Services</u>	<u>Sample</u>	<u>Solos</u>	<u>Adults Only</u>	<u>Full Nest</u>	<u>Single Parents</u>	<u>With Pre- Schoolers</u>
Copy Center	53.9	62.5	65.6	42.9	60.0	57.9
Post Office	52.9	56.3	62.5	46.9	40.0	52.6
Office Supply Store	40.2	31.3	53.1	32.7	60.0	42.1
Library	24.5	18.8	34.4	18.4	40.0	26.3
Convenient to Downtown	24.0	26.7	21.9	22.9	40.0	42.1
Fast Food Restaurant	13.7	6.3	21.9	10.2	20.0	10.5
Convenience Store	12.7	6.3	12.5	12.2	40.0	15.8
Gasoline Station	11.9	0	19.4	10.2	20.0	10.5
Supermarket	10.8	12.5	12.5	8.2	20.0	5.3
Restaurant	9.8	18.8	15.6	4.1	0	5.3
Bus Stop	9.8	12.5	9.4	8.2	20.0	15.8
Drug Store	8.8	12.5	15.6	4.1	0	0
Gymnasium or Health Club	7.8	12.5	9.4	4.1	20.0	5.3
Swim Pool	3.9	12.5	0	4.1	0	0
Daycare Center	4.0	0	0	6.1	20.0	15.8
Dry Cleaners	3.9	12.5	6.3	0	0	0
Children's Playground	2.0	0	0	4.1	0	10.5
Laundromat	2.0	6.3	0	2.0	0	0
School	1.0	0	0	0	20.0	0
Movie Theater	0	0	0	0	0	0
Nightclub	0	0	0	0	0	0
<u>Social</u>						
Privacy, Neighbors Leave You Alone	24.5	31.3	9.4	28.6	60.0	47.4
Friendly Neighbors	9.8	18.8	9.4	6.1	20.0	15.8
Friends' Houses	6.9	18.8	3.1	6.1	0	5.3
<u>Ambient Conditions</u>						
Peaceful and Quiet	30.4	25.0	34.4	26.5	60.0	42.1
Pleasant View	26.5	31.3	21.9	28.6	20.0	31.6
Quiet Walking Conditions	19.6	43.8	15.6	16.3	0	15.8
Clean, Unlittered	13.9	6.3	9.4	16.7	40.0	26.3
Park	10.8	18.8	9.4	10.2	0	15.8
Prestige	10.8	12.5	6.3	12.2	20.0	15.8
Good Walking Conditions	8.8	12.5	9.4	6.1	20.0	21.1
(n)	(102)	(16)	(32)	(49)	(5)	(19)

(Appendix L: 2 of 3)

<u>Facilities and Services</u>	<u>Business meetings at Home</u>	<u>No Business Meetings at Home</u>	<u>Work 20 Hours/Week or Less</u>	<u>Work 20.1 to 40 Hours/Wk</u>	<u>Work 40.1 to 60 Hours/Wk</u>	<u>Work more than 60 Hours/Wk</u>
Copy Center	55.4	53.5	14.0	55.6	63.6	55.6
Post Office	60.7	44.2	44.0	51.1	63.6	66.7
Office Supply Store	48.2	30.2	28.0	37.8	54.5	55.6
Library	28.6	20.9	12.0	24.4	36.4	33.3
Convenient to Downtown	30.4	16.7	20.8	22.7	22.7	44.4
Fast Food Restaurant	16.1	9.3	12.0	13.3	13.6	22.2
Convenience Store	12.5	14.0	8.0	13.3	13.6	22.2
Gasoline Station	18.2	4.7	4.0	9.1	18.2	33.3
Supermarket	8.9	14.0	8.0	13.3	13.6	0
Restaurant	8.9	9.3	0	11.1	9.1	33.3
Bus Stop	12.5	7.0	0	8.9	18.2	22.2
Drug Store	7.1	11.6	0	11.1	4.5	33.3
Gymnasium or Health Club	12.5	2.3	4.0	8.9	4.5	22.2
Swim Pool	3.6	4.7	0	6.7	0	0
Daycare Center	5.4	2.4	8.3	2.2	4.5	0
Dry Cleaners	0	9.3	0	8.9	0	0
Children's Playground	0	4.7	8.0	0	0	0
Laundromat	0	4.8	4.2	2.2	0	0
School	0	2.3	4.0	0	0	0
Movie Theater	0	0	0	0	0	0
Nightclub	0	0	0	0	0	0
<u>Social</u>						
Privacy, Neighbors Leave You Alone	26.8	23.3	16.0	31.1	22.7	22.2
Friendly Neighbors	10.7	9.3	4.0	13.3	4.5	22.2
Friends' Houses	10.7	2.3	8.0	4.4	9.1	11.1
<u>Ambient Conditions</u>						
Peaceful and Quiet	33.9	27.9	16.0	37.8	31.8	33.3
Pleasant View	28.6	25.6	4.0	35.6	27.3	44.4
Quiet Walking Conditions	23.2	16.3	16.0	22.2	13.6	33.3
Clean, Unlittered	18.2	9.3	8.3	20.0	9.1	11.1
Park	10.7	11.6	12.0	11.1	9.1	11.1
Prestige	14.3	7.0	12.0	8.9	13.6	11.1
Good Walking Conditions	5.4	14.0	8.0	8.9	0	33.3
	(56)	(43)	(25)	(45)	(22)	(9)

(Appendix L: 2 of 3)

<u>Facilities and Services</u>	<u>Business Meetings at Home</u>			
	<u>Less Than 1/Month</u>	<u>Less Than 1/Week More Than or Equal 1/month</u>	<u>More Than 0/Week Less Than or Equal 2/Week</u>	<u>2/Week or More</u>
Copy Center	36.4	62.5	50.0	66.7
Post Office	27.3	68.8	57.1	80.0
Office Supply Store	27.3	62.5	35.7	60.0
Library	0	37.5	42.9	26.7
Convenient to Downtown	9.1	37.5	21.4	46.7
Fast Food Restaurant	9.1	12.5	21.4	20.0
Convenience Store	0	25.0	14.3	6.7
Gasoline Station	0	25.0	15.4	26.7
Supermarket	9.1	12.5	7.1	6.7
Restaurant	0	12.5	14.3	6.7
Bus Stop	0	12.5	7.1	26.7
Drug Store	0	12.5	0	13.3
Gymnasium or Health Club	0	6.3	21.4	20.0
Swim Pool	9.1	0	0	6.7
Daycare Center	0	6.3	7.1	6.7
Dry Cleaners	0	0	0	0
Children's Playground	0	0	7.1	0
Laundromat	0	0	0	0
School	0	0	0	0
Movie Theater	0	0	0	0
Nightclub	0	0	0	0
	0			
<u>Social</u>				
Privacy, Neighbors Leave You Alone	36.4	25.0	7.1	40.0
Friendly Neighbors	18.2	12.5	7.1	6.7
Friends' Houses	0	31.3	0	6.7
<u>Ambient Conditions</u>				
Peaceful and Quiet	36.4	37.5	21.4	40.0
Pleasant View	36.4	25.0	21.4	33.3
Quiet Walking Conditions	27.3	31.3	7.1	26.7
Clean, Unlittered	9.1	13.3	14.3	33.3
Park	0	25.0	7.1	6.7
Prestige	0	12.5	7.1	33.3
Good Walking Conditions	0	12.5	0	6.7
	(11)	(16)	(14)	(15)

Appendix M

PERCENTAGE OF RESPONDENTS CITING REASON FOR CHOOSING WORKSPACE

	<u>Percentage</u>
Proximity to Kitchen	3.9%
Proximity to Living Room	2.0
Proximity to Bathroom	2.9
Proximity to Bedrooms	1.0
Proximity to Front Entry	6.9
Proximity Child, Play Area	2.0
Proximity to Books, Reference Materials	1.0
Proximity to Storage, Closet	1.0
Proximity to Garage	1.0
Separate, Distant from Kitchen	1.0
Separate, Distant from Living Room	2.0
Separate, Distant from Bedrooms	2.9
Separate, Distant from TV	1.0
Separate, Distant from Child, Play	1.0
Proximity to Living Areas, Unspecified Rooms	2.0
Central Location in Home	1.0
Separate From Living Area, Different Floor Level	3.9
Separate From Living Area, Same Floor	1.0
Separate From Living Area, No Floor Mentioned	10.8
Private Outside Entry to Workspace	1.0
Private Interior Access to Workspace	1.0
1st Floor To Access Outside Door	1.0
1st Floor - General	2.9
Second Floor	2.0
Basement	1.0
Attic	1.0
Separate Structure	1.0
Clients Don't See Private Areas of Home	3.9
Acoustical Separation: Indoor Noise	2.0
Acoustical Separation: Noisy Workspace	4.9
Acoustical Separation: Unspecified	1.0
Quiet in Home	1.0
Privacy, No Interference	2.0
Separate Room, Private Room, Door to Close	11.8
Nook, Alcove	3.9
Through-Circulation in workspace	1.0
Smallest Room or Bedroom	9.8
Largest Room or Bedroom	5.9
Amount of Space, Spacious Room	14.7
Compact Size to Reach Things	1.0
Sufficient Size for Equipment	2.9

(Appendix M: 2 of 2)

	<u>Percentage</u>
Shape of Room	1.0
Finished Room	1.0
Doesn't Look like Converted Bedroom	2.0
Looks Like Living Room	1.0
Control of Decorating	1.0
Interesting Features	1.0
Fireplace	1.0
Concrete Floor	1.0
Available, Spare Room	38.2
Previous Workspace	5.9
Furniture in Workspace	1.0
Spacious Home	1.0
Homey/Comfortable Home	1.0
Breeze/Cross-Ventilation	2.0
Phone Jack Location	1.0
Large Windows	1.0
Windows	2.0
Not Near Windows	1.0
Absence of Windows, General	1.0
View, Landscaping	2.0
View, General or Unspecified	3.9
Street Window: For Security, Clients	1.0
No Street Window-Noisy	1.0
No Street Window-Security	1.0
Natural Lighting; Bright	8.8
No Direct Sun in Workspace	1.0
Southern Exposure	1.0
Easy for Clients to Find	1.0
Other than Above	<u>10.8</u>

Appendix N

PERCENTAGE OF RESPONDENTS CITING POSITIVE PHYSICAL FEATURE OF THE PRESENT WORKSPACE

	<u>Percentage</u>
Proximity to Kitchen	13.0%
Proximity to Living Room	2.0
Proximity to Bathroom	7.0
Proximity to Bedrooms	2.0
Proximity to Front Entry	3.0
Proximity to Baby's Room	1.0
Proximity to Laundry	1.0
Proximity to TV	1.0
Proximity to Child, Playarea	2.0
Proximity to Books, Reference Materials	2.0
Separate, Distant from Bedrooms	4.0
Separate, Distant from Front Entry	2.0
Separate, Distant from Child, Play	2.0
Proximity to Living Areas, Unspecified Rooms	2.0
Central Location in Home	3.0
Separate From Living Area, Different Floor Level	5.0
Separate From Living Area, Same Floor	1.0
Separate From Living Area, No Floor Mentioned	16.0
Private Outside Entry to Workspace	5.0
Private Interior Access to Workspace	1.0
1st Floor To Access Outside Door	2.0
1st Floor - General	1.0
Second Floor	2.0
Basement	1.0
Separate Structure	2.0
Clients Don't See Private Areas of Home	2.0
Car Access to Work Area	2.0
Outside Door, Small Floor Office	2.0
Acoustical Separation: Indoor Noise	2.0
Acoustical Separation: Noisy Workspace	2.0
Acoustical Separation: Unspecified	3.0
Quiet in Home	11.0
Acoustical Control	2.0
Privacy, No Interference	5.0
Separate Room, Private Room, Door to Close	15.0
Nook, Alcove	2.0
Variety of Spaces in Workspace	1.0
Amount of Space, Spacious Room	17.0
Compact Size to Reach Things	1.0
Sufficient Size for Equipment	4.0
Shape of Room	3.0
Beautiful, Aesthetically Pleasing	7.0
No Permanent Markings	1.0
Control of Decorating	3.0
Pictures, Art, Personal Objects	4.0

(Appendix N: 2 of 2)

<u>Category Label</u>	<u>Percentage</u>
Residential Furnishings	5.0
Fireplace	2.0
Music, Choice of	1.0
Carpeting	1.0
Adequate Storage in Workspace	2.0
Variety of Workspaces in Different Areas of Home	1.0
Didn't Want to Displace; Spare Room	5.0
Previous Workspace of Other	1.0
Spacious Home	13.0
Large Kitchen	1.0
Homey, Comfortable Home	6.0
Old, Interesting Home	3.0
No Home Maintenance, Repairs	1.0
Temperature, Unspecified	1.0
Breezy/Good Cross-ventilation	7.0
Air-Conditioning	2.0
Temperature Regulation/Control in Home	4.0
Separate Temperature Control in Workspace	1.0
Adequate/Good Artificial Lighting	3.0
Variety of Lighting	1.0
Enough Electricity	2.0
Grounded Electric Currents	1.0
Phone Jack Locations	1.0
Windows	8.0
View to Landscaping	11.0
View, General/Unspecified	8.0
View to Back Yard to See Children	1.0
Window to Street for Security, Clients	2.0
Window to Street for Advertising	1.0
No Window to Street - Noise	1.0
No Window to Street - Security	2.0
Natural Lighting - Bright	16.0
No Direct Sun on Workspace	1.0
Porch, Balcony Used for Work	4.0
Southern Exposure	1.0
Easy Location for Clients to Find	3.0
Landscaping	2.0
Neighborhood/Building Amenities, Services	4.0
Neighbors	1.0
Quiet Neighborhood	10.0
Neighborhood Appearance	2.0
Feels Part of Community	1.0
Likes Location, Unspecified	1.0
Proximity, Convenience to Town	2.0
Mixed Use Building Appears Professional	1.0
Other Than Above	<u>11.0</u>

Appendix O

PERCENTAGE OF RESPONDENTS CITING PROBLEMATIC PHYSICAL FEATURE IN PRESENT WORKSPACE

	<u>Percentage</u>
Proximity to Bathroom	.9
Proximity to TV	1.9
Proximity to Child Playarea	.9
Separate, Distant from Bathroom	.9
Separate, Distant Front Entry	1.9
Proximity to Living Area, Unspecified	1.9
No Separate Outside Entry	4.8
No/Poor Car Access	3.8
Path to Workspace Through Private Areas of Home	3.8
Workspace on Different Floor Level/Stairs	1.9
Workspace on Different Floor Level/Doorbell	.9
Workspace on Different Floor Level/Separate from Rest of Home	.9
Workspace on Different Floor Level/Unspecified	2.9
Through-Circulation in Workspace	1.9
Lack Adjacent Auxiliary Work Areas	2.9
Door Swings Inward	.9
Square Shape of Workspace	.9
Workspace is Small	13.5
Small, No Variety of Workareas	.9
Poor Aesthetics	2.9
Too Dusty	.9
Lack Sufficient Wall Space	1.9
Open to Other Room/Noisy Printer	.9
Open to Other Room/See Mess	2.9
Open to Other Room/Spillover of Materials	.9
Non-Exclusive Workspace/No Tax Benefit	.9
Non-Exclusive Workspace/Disturbances from TV, Others	2.9
Non-Exclusive Workspace/Insufficient Storage Space	.9
Non-Exclusive Workspace/Awkward With Client	.9
Non-Exclusive Workspace/General Dislike	1.9
Lack Drawers	.9
Lack Custom Furniture	1.9
Lack Horizontal Work Surfaces	2.9
Lack Sufficient Storage	11.5
Lack Sufficient Shelving	1.9
VDT Same Level as Head	.9
Size Furniture Inadequate	.9
Inconvenient Files, Storage	.9
Carpet/Static	1.9
Carpet/Impede Movement	.9
Home Too Small	6.7
Home Too Messy	.9
Home Less Professional to Clients	1.9
Noise/Unspecified Indoor	4.8

(Appendix O: 2 of 2)

	<u>Percentage</u>
Noise Through Airducts	.9
Printer Noise Disturbs Neighbors	.9
Temperature - Too Cold	4.8
Temperature - Too Hot	6.7
Temperature - No Separate Control	.9
Temperature - Humid	4.8
Temperature - Lack Insulation	1.9
Drafty	.9
No Temperature Control in Workspace	.9
Artificial Lighting: General Problems	2.9
Glare	3.8
Insufficient Amount of Artificial Lighting	2.9
No Variable Artificial Lighting	.9
Artificial Light Fixtures Hot	.9
Electric Wiring Inadequate	3.8
Number of Electric Outlets Inadequate	8.7
Location Electric Outlets Inadequate	2.9
Underpowered Circulation System	1.9
Absence of Phone Jacks in Workspace	2.9
Phone Jack Determined Location	1.9
No View: General	3.8
No View: Specific Type Desired	2.9
Lack Natural Light	3.8
Windows Don't Open	.9
Lack Outdoor Workspace	.9
Lack Natural Light: Specific Exposure	.9
Site: City Zoning Regulations	.9
Neighborhood Services Far Away	.9
Outdoor Neighborhood Noise	3.8
Other Than Above	6.7

Appendix P

PERCENTAGE OF HOMEWORKERS WHO MENTION WANTING
ROOMS IN CLOSE PROXIMITY TO WORKSPACE

	<u>Entire Sample</u>		<u>Solos</u>	<u>Adults Only</u>	<u>Full Nest</u>	<u>Single Parents</u>	<u>With Business Meetings at Home</u>	<u>No Business Meetings at Home</u>
Bathroom	62.5%	(65)	68.8%	72.7%	54.0%	60.0%	63.6%	61.4%
Kitchen	33.7	(35)	31.3	36.4	34.0	20.0	31.6	38.6
Front Entry	12.5	(13)	6.3	15.2	14.0	0.0	21.1	2.3
Living Room	8.7	(9)	12.5	6.1	6.0	40.0	7.0	11.4
Den,TV Room	6.7	(7)	6.3	6.1	8.0	0.0	8.8	4.5
Bedroom(s)	5.8	(6)	0.0	6.1	8.0	0.0	8.8	2.3
Dining Room	2.9	(3)	6.3	0.0	4.0	0.0	3.5	2.3
Outdoors, Yard	1.9	(2)	0.0	0.0	2.0	20.0	0.0	4.5
Laundry	1.9	(2)	0.0	6.1	0.0	0.0	3.5	2.3
Storage Space	1.9	(2)	0	6.1	0.0	0.0	3.5	0.0
Garage	1.9	(2)	0.0	3.0	2.0	0.0	0.0	0.0
Conference or Auxiliary Workroom	1.9	(2)	6.3	3.0	0.0	0.0	1.8	2.3
Other	6.7	(7)	6.3	9.1	4.0	0.0	5.3	9.1
(n)		(104)	(16)	(33)	(50)	(5)	(57)	(44)

Appendix Q

PERCENTAGE OF HOMEWORKERS WHO MENTION WANTING
ROOMS DISTANT TO WORKSPACE

	<u>Entire Sample</u>		<u>Solos</u>	<u>Adults Only</u>	<u>Full Nest</u>	<u>Single Parents</u>	<u>With Business Meetings at Home</u>	<u>No Business Meetings at Home</u>
Bedroom(s)	35.6%	(37)	37.5%	30.3%	38.0%	40.0%	31.6%	40.9%
Kitchen	31.7	(33)	12.5	39.4	32.0	40.0	38.6	18.2
Living Room	20.2	(21)	12.5	27.3	18.0	20.0	17.5	20.5
Den,TV Room	17.3	(18)	0.0	12.1	28.0	0.0	19.3	13.6
Living Space, Unidentified	11.5	(12)	18.8	6.1	12.0	20.0	14.0	9.1
TV	8.7	(9)	0.0	9.1	12.0	0.0	8.8	9.1
Dining Room	5.8	(6)	0.0	9.1	6.0	0.0	5.3	6.8
Bathroom	3.8	(4)	0.0	12.1	0.0	0.0	5.3	2.3
Laundry	3.8	(4)	0.0	9.1	0.0	20.0	7.0	0.0
Conference or Auxiliary Workroom	2.9	(3)	0.0	3.0	4.0	0.0	5.3	0.0
Child's Bedroom	2.9	(3)	0.0	0.0	4.0	20.0	0.0	0.0
Child's Playarea	1.9	(2)	0.0	0.0	4.0	0.0	3.5	0.0
Other	6.7	(7)	12.5	3.0	8.0	0.0	5.3	9.1
(n)		(104)	(16)	(33)	(50)	(5)	(57)	(44)

Appendix R

PERCENTAGE HOMEWORKERS DESIRING SPECIFIC PHYSICAL FEATURES IN IDEAL HOME WORKSPACE

	<u>Entire Sample</u>		<u>Solos</u>	
	<u>Must Have</u>	<u>Must Have or Be Nice</u>	<u>Must Have</u>	<u>Must Have or Be Nice</u>
Direct entrance from outside	21.2%	66.4%	18.8%	68.8%
Separate room for work	86.5	97.1	81.3	100.0
Workspace detached from house	6.7	33.6	6.3	43.8
Separate conference room	13.5	53.9	18.8	50.1
Separate client waiting room	4.8	37.5	12.5	43.8
Adjoining bathroom	41.3	79.8	37.5	75.0
View to rear yard	24.0	76.9	12.5	75.0
View to street	23.1	68.3	25.0	62.5
Openable windows	74.0	93.2	62.5	81.3
No visual access to rooms	32.7	66.4	18.8	43.8
Shut off from noise	69.2	92.3	50.0	81.3
Dimmer for light control	22.1	77.9	12.5	68.8
Phone line	97.1	98.1	93.8	93.8
Business phone line	59.6	83.6	56.3	75.1
Answering machine	72.1	89.4	87.5	93.8
Copy machine	32.7	80.8	43.8	81.3
Control over temperature	74.0	97.1	68.8	100.0
Furniture designed for office	67.3	97.1	62.5	100.0
Built-in storage space	60.6	97.1	75.0	93.8
Acoustical device for printer*	28.7	79.8	37.5	75.0
Bulletin or display board	38.5	73.1	37.5	62.5
Ceiling lighting	57.7	82.7	56.3	75.1
Table or desk lamps	70.9	88.4	81.3	87.5
Yard space	24.0	64.4	25.0	62.5
Patio or balcony	17.3	72.1	12.5	81.3
Exercise place in home	28.8	71.1	18.8	50.1
(n)	(104)	(104)	(16)	(16)

* n=94/n=16/n=29/n=44/n=5/n=16/n=52/n=40

(Appendix R: 2 of 9)

	<u>Adults Only</u>		<u>Full Nest</u>	
	<u>Must Have</u>	<u>Must Have or Be Nice</u>	<u>Must Have</u>	<u>Must Have or Be Nice</u>
Direct entrance from outside	24.2%	72.7%	20.0%	62.0%
Separate room for work	93.9	96.9	84.0	96.0
Workspace detached from house	3.0	30.3	10.0	34.0
Separate conference room	12.1	66.6	14.0	44.0
Separate client waiting room	3.0	45.4	4.0	28.0
Adjoining bathroom	51.5	87.9	34.0	74.0
View to rear yard	39.4	66.7	18.0	82.0
View to street	21.2	60.6	22.0	72.0
Openable windows	78.8	94.0	72.0	96.0
No visual access to rooms	33.3	69.7	38.0	74.0
Shut off from noise	57.6	90.9	82.0	96.0
Dimmer for light control	24.2	81.8	24.0	78.0
Phone line	97.0	100.0	98.0	98.0
Business phone line	57.6	87.9	62.0	84.0
Answering machine	84.8	93.9	60.0	84.0
Copy machine	45.5	94.0	20.0	74.0
Control over temperature	78.8	97.0	72.0	96.0
Furniture designed for office	69.7	93.9	64.0	98.0
Built-in storage space	63.6	96.9	52.0	98.0
Acoustical device for printer*	17.2	75.8	34.1	84.1
Bulletin or display board	48.5	78.8	28.0	72.0
Ceiling lighting	51.5	78.8	62.0	86.0
Table or desk lamps	75.0	84.4	66.0	90.0
Yard space	18.2	60.6	30.0	66.0
Patio or balcony	15.2	66.7	18.0	70.0
Exercise place in home	42.4	75.7	24.0	74.0
(n)	(33)	(33)	(50)	(50)

(Appendix R: 3 of 9)

	<u>Single Parents</u>		<u>With Preschoolers</u>	
	<u>Must Have</u>	<u>Must Have or Be Nice</u>	<u>Must Have</u>	<u>Must Have or Be Nice</u>
Direct entrance from outside	20.0%	60.0%	10.5%	68.4%
Separate room for work	80.0	100.0	89.5	100.0
Workspace detached from house	0.0	20.0	5.3	36.9
Separate conference room	0.0	80.0	10.5	57.9
Separate client waiting room	0.0	60.0	0.0	26.3
Adjoining bathroom	60.0	100.0	31.6	68.4
View to rear yard	20.0	100.0	15.8	84.2
View to street	40.0	100.0	10.5	57.9
Openable windows	100.0	100.0	68.4	100.0
No visual access to rooms	20.0	40.0	31.6	68.4
Shut off from noise	80.0	100.0	78.9	100.0
Dimmer for light control	20.0	80.0	10.5	68.4
Phone line	100.0	100.0	100.0	100.0
Business phone line	60.0	80.0	47.4	84.2
Answering machine	60.0	100.0	52.6	89.5
Copy machine	40.0	60.0	10.5	68.4
Control over temperature	80.0	100.0	68.4	94.7
Furniture designed for office	100.0	100.0	57.9	100.0
Built-in storage space	80.0	100.0	42.1	100.0
Acoustical device for printer*	20.0	80.0	12.5	81.2
Bulletin or display board	80.0	80.0	21.1	68.4
Ceiling lighting	60.0	100.0	52.6	84.2
Table or desk lamps	60.0	100.0	73.7	94.7
Yard space	0.0	80.0	26.3	78.9
Patio or balcony	40.0	100.0	5.3	68.5
Exercise place in home	20.0	80.0	10.5	84.2
(n)	(5)	(5)	(19)	(19)

(Appendix R: 4 of 9)

	<u>Have Business Meetings at Home</u>		<u>Without Business Meetings at Home</u>	
	<u>Must Have</u>	<u>Must Have or Be Nice</u>	<u>Must Have</u>	<u>Must Have or Be Nice</u>
Direct entrance from outside	24.6%	73.7%	15.9%	56.8%
Separate room for work	87.7	96.5	84.1	97.7
Workspace detached from house	3.5	36.8	11.4	29.6
Separate conference room	15.8	71.9	11.4	34.1
Separate client waiting room	5.3	54.4	4.5	18.1
Adjoining bathroom	45.6	86.0	36.4	75.0
View to rear yard	21.1	82.5	27.3	72.7
View to street	19.3	71.9	29.5	61.4
Openable windows	82.5	98.2	65.9	86.4
No visual access to rooms	36.8	70.1	27.3	59.1
Shut off from noise	73.7	94.7	63.6	90.9
Dimmer for light control	17.5	75.4	27.3	81.8
Phone line	98.2	100.0	95.5	95.5
Business phone line	66.7	87.7	52.3	79.5
Answering machine	78.9	89.5	65.9	88.6
Copy machine	40.4	84.2	25.0	77.3
Control over temperature	75.4	98.2	70.5	95.5
Furniture designed for office	64.9	94.7	68.2	100.0
Built-in storage space	64.9	98.2	56.8	95.5
Acoustical device for printer*	32.7	82.7	22.5	75.0
Bulletin or display board	40.4	71.9	38.6	77.3
Ceiling lighting	59.6	80.7	56.8	84.1
Table or desk lamps	73.2	89.3	65.9	86.4
Yard space	24.6	70.2	25.0	59.1
Patio or balcony	15.8	70.2	20.5	75.0
Exercise place in home	29.8	75.4	29.5	70.4
(n)	(57)	(57)	(44)	(44)

(Appendix R: 5 of 9)

	<i>Work Characteristic: Help Others</i>					
	<i>Little</i>		<i>Moderate</i>		<i>Much</i>	
	<i>Must</i>	<i>Must+Nice</i>	<i>Must</i>	<i>Must+Nice</i>	<i>Must</i>	<i>Must+Nice</i>
<i>Direct entrance from outside</i>	11.1	55.5	16.9	64.4	31.4	74.3
<i>Separate room for work</i>	66.7	100.0	86.4	96.6	91.4	97.1
<i>Workspace detached from house</i>	0.0	11.1	3.4	23.7	11.4	54.3
<i>Separate conference room</i>	0.0	44.4	10.2	47.5	22.9	68.6
<i>Separate client wait room</i>	0.0	33.3	3.4	35.6	8.6	42.9
<i>Adjoining bathroom</i>	44.4	55.5	33.9	78.0	54.3	88.6
<i>View to rear yard</i>	22.2	77.8	25.4	84.7	22.9	65.7
<i>View to street</i>	11.1	55.5	25.4	74.6	20.0	60.0
<i>Openable windows</i>	66.7	88.9	81.4	96.6	65.7	91.4
<i>No visual access to rooms</i>	33.3	44.4	28.8	71.2	37.1	62.9
<i>Shut off from noise</i>	55.6	88.9	69.5	94.9	71.4	88.6
<i>Dimmer for light control</i>	11.1	77.8	22.0	77.9	25.7	77.1
<i>Phone line</i>	100.0	100.0	98.3	100.0	94.3	94.3
<i>Business phone line</i>	33.3	55.5	57.6	84.7	68.6	88.6
<i>Answering machine</i>	44.4	88.8	67.8	86.4	85.7	94.3
<i>Copy machine</i>	11.1	55.5	35.6	78.0	34.3	91.4
<i>Control over temperature</i>	88.9	100.0	67.8	96.6	80.0	97.1
<i>Furniture designed for office</i>	77.8	100.0	67.8	96.6	65.7	97.1
<i>Built-in storage</i>	55.6	100.0	57.6	98.3	68.6	94.3
<i>Acoustical device</i>	0.0	75.0	26.4	81.1	40.6	81.2
<i>Bulletin display board</i>	22.2	66.7	39.0	78.0	42.9	65.7
<i>Ceiling lighting</i>	22.2	55.6	66.1	89.8	51.4	77.1
<i>Table or desk lamps</i>	62.5	100.0	76.3	91.5	62.9	80.0
<i>Yard space</i>	22.2	66.7	20.3	67.8	31.4	60.0
<i>Patio or balcony</i>	11.1	66.7	13.6	71.2	25.7	77.1
<i>Exercise place in home</i>	22.2	77.8	25.4	72.9	37.1	68.6

(n)

(9)

(59)

(35)

(Appendix R: 6 of 9)

	<i>Work Characteristic: Friendship Opportunities</i>					
	<i>Little</i>		<i>Moderate</i>		<i>Much</i>	
	<i>Must</i>	<i>Must+Nice</i>	<i>Must</i>	<i>Must+Nice</i>	<i>Must</i>	<i>Must+Nice</i>
<i>Direct entrance from outside</i>	18.2	63.6	22.7	63.6	23.1	76.9
<i>Separate room for work</i>	78.8	97.0	86.4	95.5	96.2	100.0
<i>Workspace detached from house</i>	6.1	18.2	4.5	40.9	7.7	38.5
<i>Separate conference room</i>	12.1	54.5	13.6	47.7	15.4	65.4
<i>Separate client wait room</i>	3.0	39.4	6.8	38.6	3.8	34.6
<i>Adjoining bathroom</i>	45.5	72.7	36.4	81.8	46.2	84.6
<i>View to rear yard</i>	24.2	87.9	25.0	75.0	23.1	69.2
<i>View to street</i>	27.3	72.7	27.3	65.9	7.7	65.4
<i>Openable windows</i>	81.8	93.9	79.5	100.0	57.7	84.6
<i>No visual access to rooms</i>	21.2	57.6	34.1	70.5	42.3	69.2
<i>Shut off from noise</i>	69.7	93.9	65.9	88.6	73.1	96.2
<i>Dimmer for light control</i>	21.2	81.8	20.5	77.3	26.9	73.1
<i>Phone line</i>	100.0	100.0	97.3	100.0	92.3	92.3
<i>Business phone line</i>	57.6	78.8	56.8	84.1	65.4	88.5
<i>Answering machine</i>	63.6	93.8	70.5	81.8	84.6	96.2
<i>Copy machine</i>	30.3	69.7	31.8	81.8	38.5	92.3
<i>Control over temperature</i>	84.8	97.0	63.6	97.7	76.9	96.2
<i>Furniture designed for office</i>	72.7	100.0	68.2	93.2	61.5	100.0
<i>Built-in storage</i>	57.6	97.0	63.6	95.5	61.5	100.0
<i>Acoustical device</i>	25.8	83.9	26.3	78.9	37.5	79.2
<i>Bulletin display board</i>	30.3	75.8	47.7	77.3	34.6	61.5
<i>Ceiling lighting</i>	63.6	81.8	56.8	81.8	50.0	84.6
<i>Table or desk lamps</i>	59.4	87.5	84.1	90.9	61.5	84.6
<i>Yard space</i>	27.3	66.7	18.2	61.4	30.8	69.2
<i>Patio or balcony</i>	18.2	69.7	15.9	72.7	19.2	76.9
<i>Exercise place in home</i>	24.2	81.8	31.8	68.2	30.8	65.4
(n)	(33)		(44)		(26)	

(Appendix R: 7 of 9)

	Work Characteristic: Variety					
	Little		Moderate		Much	
	<i>Must</i>	<i>Must+Nice</i>	<i>Must</i>	<i>Must+Nice</i>	<i>Must</i>	<i>Must+Nice</i>
Direct entrance from outside	5.0	40.0	30.4	71.7	18.9	75.7
Separate room for work	75.0	95.0	87.0	97.8	91.9	97.3
Workspace detached from house	10.0	25.0	8.7	26.1	0.0	45.9
Separate conference room	0.0	20.0	19.6	60.9	13.5	64.9
Separate client wait room	0.0	25.0	4.3	41.3	8.1	40.5
Adjoining bathroom	20.0	65.0	56.5	93.5	35.1	70.3
View to rear yard	15.0	85.0	23.9	78.3	29.7	73.0
View to street	20.0	80.0	21.7	67.4	24.3	62.2
Openable windows	75.0	90.0	73.9	93.5	75.7	97.3
No visual access to rooms	30.0	60.0	37.0	67.4	27.0	67.6
Shut off from noise	70.0	90.0	73.9	97.8	62.2	86.5
Dimmer for light control	15.0	85.0	32.6	82.6	13.5	67.6
Phone line	95.0	95.0	97.8	100.0	97.3	97.3
Business phone line	65.0	90.0	60.9	80.4	54.1	83.8
Answering machine	30.0	70.0	82.6	91.3	81.1	97.3
Copy machine	15.0	55.0	39.1	84.8	35.1	89.2
Control over temperature	70.0	95.0	73.9	97.8	75.7	97.3
Furniture designed for office	60.0	100.0	67.4	93.5	73.0	100.0
Built-in storage	50.0	95.0	58.7	97.8	70.3	97.3
Acoustical device	18.8	62.5	34.1	82.9	27.8	86.1
Bulletin display board	40.0	80.0	32.6	73.9	45.9	67.6
Ceiling lighting	60.0	90.0	56.5	80.4	56.8	81.1
Table or desk lamps	60.0	90.0	68.9	88.9	78.4	86.5
Yard space	10.0	50.0	32.6	65.2	21.6	73.0
Patio or balcony	5.0	60.0	26.1	71.7	13.5	81.1
Exercise place in home	30.0	65.0	26.1	78.3	32.4	67.6
(n)	(20)		(46)		(37)	

	Household Organization					
	Little		Moderate		Much	
	<u>Must</u>	<u>Must+Nice</u>	<u>Must</u>	<u>Must+Nice</u>	<u>Must</u>	<u>Must+Nice</u>
Direct entrance from outside	16.7	58.3	26.5	71.4	14.3	64.3
Separate room for work	80.6	97.2	91.8	98.0	78.6	92.9
Workspace detached from house	0.0	36.1	10.2	36.7	7.1	21.4
Separate conference room	16.7	50.0	16.3	65.3	0.0	28.6
Separate client wait room	5.6	41.7	6.1	42.9	0.0	14.3
Adjoining bathroom	36.1	77.8	49.0	81.6	35.7	78.6
View to rear yard	22.2	86.1	30.6	75.5	14.3	57.1
View to street	30.6	69.4	20.4	69.4	14.3	64.3
Openable windows	83.3	94.4	71.4	98.0	71.4	85.7
No visual access to rooms	33.3	72.2	30.6	69.4	35.7	42.9
Shut off from noise	63.9	94.4	67.3	89.8	78.6	92.9
Dimmer for light control	13.9	75.0	26.5	83.7	21.4	64.3
Phone line	97.2	97.2	98.0	100.0	92.9	99.0
Business phone line	66.7	91.7	53.1	79.6	64.3	78.6
Answering machine	72.2	83.3	73.5	98.0	57.1	71.4
Copy machine	41.7	80.6	30.6	87.8	21.4	64.3
Control over temperature	77.8	97.2	71.4	95.9	71.4	100.0
Furniture designed for office	75.0	91.7	65.3	100.0	64.3	100.0
Built-in storage	61.1	100.0	61.2	95.9	64.3	92.9
Acoustical device	24.2	75.8	31.8	86.4	25.0	66.7
Bulletin display board	33.3	66.7	38.8	73.5	50.0	78.6
Ceiling lighting	66.7	83.3	46.9	81.3	57.1	78.6
Table or desk lamps	75.0	91.7	75.0	91.7	42.9	71.4
Yard space	27.8	66.7	24.5	65.3	21.4	57.1
Patio or balcony	19.4	69.4	16.3	75.5	21.4	64.3
Exercise place in home	22.2	66.7	36.7	77.6	14.3	57.1
(n)	(36)		(49)		(14)	

(Appendix R: 9 of 9)

	Household Control					
	Little		Moderate		Much	
	<u>Must</u>	<u>Must+Nice</u>	<u>Must</u>	<u>Must+Nice</u>	<u>Must</u>	<u>Must+Nice</u>
Direct entrance from outside	6.3	68.7	25.5	63.8	21.1	69.4
Separate room for work	93.8	100.0	78.7	97.9	92.1	94.7
Workspace detached from house	6.3	50.0	8.5	29.8	2.6	31.6
Separate conference room	0.0	56.3	14.9	53.2	18.4	52.6
Separate client wait room	0.0	43.8	4.3	38.3	7.9	34.2
Adjoining bathroom	31.3	87.5	55.3	83.0	28.9	71.1
View to rear yard	18.8	93.7	21.3	80.9	31.6	65.8
View to street	25.0	62.5	25.5	78.7	18.4	57.9
Openable windows	81.3	100.0	78.7	93.6	71.1	94.7
No visual access to rooms	56.3	81.2	29.8	70.2	23.7	52.6
Shut off from noise	75.0	93.7	70.2	95.7	63.2	86.8
Dimmer for light control	18.8	75.0	31.9	91.5	10.5	60.5
Phone line	100.0	100.0	100.0	100.0	92.1	98.0
Business phone line	75.0	93.7	61.7	85.1	50.0	76.3
Answering machine	56.3	81.2	70.2	87.2	78.9	94.7
Copy machine	25.0	62.5	38.3	83.0	28.9	84.2
Control over temperature	62.5	100.0	76.6	95.7	76.3	97.4
Furniture designed for office	75.0	94.7	63.8	97.9	73.7	97.4
Built-in storage	56.3	100.0	57.4	100.0	71.1	92.1
Acoustical device	30.8	76.9	31.7	87.8	27.0	73.0
Bulletin display board	31.3	68.7	36.2	76.6	44.7	68.4
Ceiling lighting	68.8	81.2	55.3	87.2	52.6	76.3
Table or desk lamps	81.3	100.0	60.9	87.0	76.3	84.2
Yard space	18.8	68.7	29.8	59.6	21.1	68.4
Patio or balcony	12.5	75.0	23.4	72.3	13.2	71.1
Exercise place in home	25.0	81.2	31.9	80.9	26.3	55.3
(n)	(16)		(47)		(38)	

Appendix S

PERCENTAGE OF HOMEWORKERS WHO MENTION OTHER DESIRABLE PHYSICAL QUALITIES IN IDEAL WORKSPACE

	<u>Percentage</u>
Phone: Speaker	.9
Phone: Portable	.9
Phone: More Outlets	3.8
Electrical Outlets: More, Location	
Separate Circuit	15.4
Temperature Control: Air-conditioning,	
Constant Temperature, Temperature Control, Fan	10.6
Acoustical Separation From Outside Noise	1.9
Natural Light	11.5
Fresh Air	.9
Window: Specific Type, Large	6.7
View: Weather, Natural Landscape, Expansive	
Distance	9.6
Lighting Control: Adjustable Blinds,	
Adjustable Lighting, Different Intensity	
and Quality of Artificial Light	14.4
Pad on Floor	.9
Different Floor Coverings	1.9
No Carpet	2.9
Carpet	4.8
Oriental Rugs	.9
Walls Without Windows or Doors	1.9
Place for Wall Display	.9
Artwork	1.9
"Warm" Atmosphere: No High Tech Decor, Beautiful	
Serene, Low-Key, Cozy, Intimate, User Friendly	4.8
Feeling of Roominess	.9
Non-Block Wall Materials	.9
Fresh Flowers, Plants	6.7
Paint, Color	1.9
Kitchen in Workspace	2.9
Piano in Workspace	1.9
Wetbar in Workspace	3.8
Bathroom or Shower in Workspace	.9
Den in Workspace	.9
Conference Area in Workspace	1.9
Task-Defined Areas in Workspace	2.9
Partitions in Workspace	.9
Fireplace in Workspace	.9
Distinct Circulation of Home-Work Areas	1.9
Corridor Connecting Workspace to Rest of Home	1.9
Separate Work-Living Areas	3.8
Acoustical Separation	4.8
Outside Door to Courtyard	.9
Sitting, Breakroom Outside Workspace	.9
Shop, Auxiliary Work Area Outside Workspace	1.9
Storage	10.6

Shelving: Freestanding, Built-in, For Books or Display, over Computers	19.2
File Cabinets	10.6
Drawers	4.8
Audio Equipment Racks	.9
Horizontal Workspace, Desk, Table	11.5
Specified Desk or Counter Configuration	5.8
Wood Furniture	1.9
Comfortable or Better Seating	2.9
Residential Looking Furniture	.9
Conference Table	1.9
Chair, Comfortable, Suitable, Good, Ergonomic	7.7
Computer Workstation, Furniture	5.8
Desk with Storage, Drawers	.9
Armoire	.9
Coordinated Office Furniture, System	.9
Trash Basket	.9
Mirror	.9
Exercise Equipment	1.9
TV	3.8
VCR	1.9
Music, Stereo, Radio	13.5
Refrigerator	4.8
Microwave Oven	.9
Projector	.9
Microfiche Reader	.9
Light Table	.9
Graphic, Office Tools	.9
More Office Equipment	1.9
More Computer Equipment	2.9
Screen, Projector or TV Wall	2.9
Other Than Above	8.7

Appendix T

TYPES OF ADDITIONAL IMPROVEMENTS MADE OR FURNITURE ADDED

Desk	52
Table or Surface Space	22
Computer Table, Station	22
Cabinets, File Cabinets	25
Shelves, Wallracks	12
Computer	17
Printer	2
Copier	1
Microfiche Reader, Postal Meter	3
Phone	6
Phone Line	2
Answering Machine	3
Typewriter	1
Calculator	1
Printer or Copier Stand	3
Audio Equipment	1
Couch, Sofa	4
Refrigerator	1
Microwave Oven	1
Candy Machine	1
Window Blinds, Coverings	3
Heating, Ventilation Equipment	2
Files	11
Books	2
Bulletin Board	1
Pictures, Posters, Wall Decorations	2
Door Bell	1
Chair	25
Platform	1
Divider	1
Outlets	1
Coffee Table	1
Other	2

Appendix U

TYPE OF WORK ACTIVITY PERFORMED IN OTHER ROOMS

Layout of Materials	27
Meetings	17
Proofreading, Editing	13
Research, Taking Notes, Reading	13
Storage	12
Phone Work	8
Writing	6
Shopwork, Cutting, Dressfitting	4
Calculating	4
Thinking, Pacing	3
Computing	3
Painting, Drawing, Drafting, Handwork	3
Teaching, Training	2
File Retrieval, Indexing	2
Snacks, Breaks	2
Work-related Entertainment	1
Video or Audio Work	1
Typing	1
Printing	1
Copying	1
Other Than Above	1

Appendix V

REPORTED FREQUENCY OF ACTIVITIES OCCURRING WHILE WORKING

	<u>Hear or See TV</u>			<u>(n)</u>
	<u>Often or Very Often</u>	<u>Sometimes</u>	<u>Hardly Ever Or Never</u>	
<i>Entire Sample</i>	15.9%	24.8%	59.4	(101)
<i>Solos</i>	21.4	7.1	71.5	(14)
<i>Adults Only</i>	6.1	24.2	69.7	(33)
<i>Full Nest</i>	22.4	28.6	49.0	(49)
<i>Single Parents</i>	0	40.0	60.0	(5)
 <u><i>Overlap in Time of Work & Home</i></u>				
<i>Much Overlap</i>	17.3	26.1	56.5	(23)
<i>Distinct</i>	10.5	26.3	63.1	(38)
 <u><i>Conflict in Way Time Used Since Working at Home</i></u>				
<i>Increased</i>	11.8	35.3	53.0	(34)
<i>Same</i>	16.7	16.7	66.7	(36)
<i>Decreased</i>	11.8	29.4	58.8	(17)

	<u>Hear Music</u>			<u>(n)</u>
	<u>Often or Very Often</u>	<u>Sometimes</u>	<u>Hardly Ever Or Never</u>	
<i>Entire Sample</i>	38.2%	29.4%	32.4%	(102)
<i>Solos</i>	46.7	13.3	40.0	(15)
<i>Adults Only</i>	45.4	21.2	33.4	(33)
<i>Full Nest</i>	28.6	40.8	30.6	(49)
<i>Single Parents</i>	60.0	20.0	20.0	(5)
 <u><i>Overlap in Time of Work & Home</i></u>				
<i>Much Overlap</i>	43.4	30.4	26.1	(23)
<i>Distinct</i>	26.4	34.2	39.5	(38)
 <u><i>Conflict in Way Time Used Since Working at Home</i></u>				
<i>Increased</i>	38.2	32.4	29.4	(34)
<i>Same</i>	43.2	24.3	32.4	(37)
<i>Decreased</i>	11.8	47.1	41.2	(17)

	<i>House is Messy</i>			<i>(n)</i>
	<i>Often or Very Often</i>	<i>Sometimes</i>	<i>Hardly Ever Or Never</i>	
<i>Entire Sample</i>	17.9%	39.6%	42.5%	(101)
<i>Solos</i>	26.7	40.0	33.3	(15)
<i>Adults Only</i>	6.1	36.4	57.6	(33)
<i>Full Nest</i>	20.9	39.6	39.6	(48)
<i>Single Parents</i>	40.0	60.0	0	(5)
 <i>Overlap in Time of Work & Home</i>				
<i>Much Overlap</i>	39.1	30.4	30.4	(23)
<i>Distinct</i>	5.4	59.5	35.1	(37)
 <i>Conflict in Way Time Used Since Working at Home</i>				
<i>Increased</i>	26.5	38.2	35.3	(34)
<i>Same</i>	8.3	41.7	50.0	(36)
<i>Decreased</i>	23.5	52.9	23.5	(17)

	<u>See Refrigerator</u>			<u>(n)</u>
	<u>Often or Very Often</u>	<u>Sometimes</u>	<u>Hardly Ever Or Never</u>	
<i>Entire Sample</i>	16.0%	18.0%	66.0%	(100)
<i>Solos</i>	35.7	28.6	35.7	(14)
<i>Adults Only</i>	12.1	18.2	69.7	(33)
<i>Full Nest</i>	12.6	12.5	75.0	(48)
<i>Single Parents</i>	20.0	40.0	40.0	(5)
 <u><i>Overlap in Time of Work & Home</i></u>				
<i>Much Overlap</i>	27.2	18.2	54.6	(22)
<i>Distinct</i>	2.7	18.9	78.4	(37)
 <u><i>Conflict in Way Time Used Since Working at Home</i></u>				
<i>Increased</i>	18.2	24.2	57.6	(33)
<i>Same</i>	11.2	11.1	77.8	(36)
<i>Decreased</i>	17.6	11.8	70.6	(17)

	<u>See Outdoors</u>			<u>(n)</u>
	<u>Often or Very Often</u>	<u>Sometimes</u>	<u>Hardly Ever Or Never</u>	
<i>Entire Sample</i>	65.0%	26.0%	9.0%	(100)
<i>Solos</i>	53.3	33.3	13.3	(15)
<i>Adults Only</i>	71.9	28.1	0	(32)
<i>Full Nest</i>	64.6	20.8	14.6	(48)
<i>Single Parents</i>	60.0	40.0	0	(5)
 <u>Overlap in Time of Work & Home</u>				
<i>Much Overlap</i>	82.6	13.0	4.3	(23)
<i>Distinct</i>	63.8	30.6	5.6	(36)
 <u>Conflict in Way Time Used Since Working at Home</u>				
<i>Increased</i>	66.7	27.3	6.1	(33)
<i>Same</i>	64.9	27.0	8.1	(37)
<i>Decreased</i>	70.6	17.6	11.8	(17)

	<u>Dishwasher is On</u>			<u>(n)</u>
	<u>Often or Very Often</u>	<u>Sometimes</u>	<u>Hardly Ever Or Never</u>	
<i>Entire Sample</i>	12.9%	35.3%	51.7%	(85)
<i>Solos</i>	11.1	11.1	77.8	(9)
<i>Adults Only</i>	10.3	31.0	58.6	(29)
<i>Full Nest</i>	16.3	41.9	41.9	(43)
<i>Single Parents</i>	0	50.0	50.0	(4)
 <u>Overlap in Time of Work & Home</u>				
<i>Much Overlap</i>	11.2	55.6	33.3	(18)
<i>Distinct</i>	15.1	27.3	57.6	(33)
 <u>Conflict in Way Time Used Since Working at Home</u>				
<i>Increased</i>	24.1	37.9	37.9	(29)
<i>Same</i>	0	44.8	55.2	(29)
<i>Decreased</i>	20.0	20.0	60.0	(15)

	<u>Phone Rings</u>			<u>(n)</u>
	<u>Often or Very Often</u>	<u>Sometimes</u>	<u>Hardly Ever Or Never</u>	
<i>Entire Sample</i>	68.7%	29.3%	2.0%	(99)
<i>Solos</i>	77.0	23.1	0	(13)
<i>Adults Only</i>	75.8	21.2	3.0	(33)
<i>Full Nest</i>	62.5	35.4	2.1	(48)
<i>Single Parents</i>	60.0	40.0	0	(5)
 <u><i>Overlap in Time of Work & Home</i></u>				
<i>Much Overlap</i>	86.4	13.6	0	(22)
<i>Distinct</i>	59.4	37.8	2.7	(37)
 <u><i>Conflict in Way Time Used Since Working at Home</i></u>				
<i>Increased</i>	69.7	27.3	3.0	(33)
<i>Same</i>	65.7	31.4	2.9	(35)
<i>Decreased</i>	70.6	29.4	0	(17)

	<u>Knock at Front Door</u>			<u>(n)</u>
	<u>Often or Very Often</u>	<u>Sometimes</u>	<u>Hardly Ever Or Never</u>	
<i>Entire Sample</i>	15.6%	46.1%	38.3%	(102)
<i>Solos</i>	6.7	33.3	60.0	(15)
<i>Adults Only</i>	15.1	42.4	42.4	(33)
<i>Full Nest</i>	16.3	53.1	30.6	(49)
<i>Single Parents</i>	40.0	40.0	20.0	(5)
 <u><i>Overlap in Time of Work & Home</i></u>				
<i>Much Overlap</i>	21.7	78.3	0	(23)
<i>Distinct</i>	5.3	36.8	57.9	(38)
 <u><i>Conflict in Way Time Used Since Working at Home</i></u>				
<i>Increased</i>	23.5	47.1	29.4	(34)
<i>Same</i>	10.8	40.5	48.6	(37)
<i>Decreased</i>	5.9	64.7	29.4	(17)

	<u>Hear or See Children</u>			<u>(n)</u>
	<u>Often or Very Often</u>	<u>Sometimes</u>	<u>Hardly Ever Or Never</u>	
<i>Entire Sample</i>	36.6%	26.8%	36.6%	(82)
<i>Solos</i>	0	0	100.0	(15)
<i>Adults Only</i>	0	21.7	78.2	(23)
<i>Full Nest</i>	55.1	30.6	14.3	(49)
<i>Single Parents</i>	60.0	40.0	0	(5)
 <u>Overlap in Time of Work & Home</u>				
<i>Much Overlap</i>	70.6	5.9	23.6	(17)
<i>Distinct</i>	28.1	34.4	37.5	(32)
 <u>Conflict in Way Time Used Since Working at Home</u>				
<i>Increased</i>	61.3	16.1	22.6	(31)
<i>Same</i>	29.6	33.3	37.0	(27)
<i>Decreased</i>	15.4	23.1	61.6	(13)

	<u>Hear or See Household Members</u>			<u>(n)</u>
	<u>Often or Very Often</u>	<u>Sometimes</u>	<u>Hardly Ever Or Never</u>	
<i>Entire Sample</i>	39.1%	34.8%	26.1%	(92)
<i>Solos</i>	0	14.3	85.7	(7)
<i>Adults Only</i>	34.4	37.5	28.1	(32)
<i>Full Nest</i>	52.1	35.4	12.5	(48)
<i>Single Parents</i>	0	40.0	60.0	(5)
 <u><i>Overlap in Time of Work & Home</i></u>				
<i>Much Overlap</i>	65.0	10.0	25.0	(20)
<i>Distinct</i>	33.4	41.7	25.0	(36)
 <u><i>Conflict in Way Time Used Since Working at Home</i></u>				
<i>Increased</i>	53.1	21.9	25.0	(34)
<i>Same</i>	26.5	47.1	26.4	(38)
<i>Decreased</i>	37.5	37.5	25.1	(16)

Appendix W

REPORTED EXAMPLES OF INTERFERENCES OR CONFLICTS BETWEEN WORK, DOMESTIC AND LEISURE ACTIVITIES

<u>Interruptions to On-Going Work</u>	<u>Percentages</u>
Meal times, meal preparation	3.8%
Family activities when want to work	2.5
Childcare: unspecified type	5.1
Childcare: when sitter is sick	1.3
Childcare: in summer	2.5
Childcare: when child wants attention (e.g. crying, immediate care)	12.7
Childcare: driving kids around	3.8
Childcare: kids make loud noises	5.1
Childcare: kids using (and wanting to use) computer	1.3
Childcare: child-related outside activities where parent needed (e.g. teacher conference)	2.5
Children: talking	7.6
Household adult relatives: talking to clients	1.3
Household adult relatives: making requests	7.6
Household adult relatives: chat, talk	5.1
Relatives outside household: unspecified (answering door)	1.3
Relatives: drop in to chat	5.1
Relatives: make requests, drop in with childcare	5.0
Neighbors, friends: unspecified	5.1
Neighbors, friends: make requests	1.3
Neighbors, friends: chat	5.1
Neighbors, friends: ask to socialize, take breaks during worktime	2.5
Others: building contractors, repair	2.5
Others: employees	1.3
Phone: calls for household members	2.5
Phone: friends call to chat	6.3
Phone: relatives call to chat	1.3
Phone ringing, general	8.9
Door: friends, neighbors	1.3
Household noise carried to workarea from children	2.5

Interruptions to On-going Household Activities

Business calls: when socializing	1.3
Business calls: late at night	2.5
Business calls: when watching TV	1.3
Business calls: during childcare	2.5
Business calls: 'after work,' private/family	11.4
Business calls: at meal time	11.4
Work material/clutter in home when want to entertain	1.3
Work material/clutter on dining table when want to entertain	1.3
Work material/clutter on dining table when family meals	1.3
Work materials all over the house	1.3
Noise from printer while family member(s) sleep	1.3
Clients' meeting (and requests for): after work time; during private/family time	6.3
Clients' meeting: children must leave living room (where meeting occurs)	1.3

Disruption to Work Materials, Products

Children scribble on work material	1.3
Blow fuse	1.3
Toy clutter in workspace	1.3

Temptations

Drawn to work "after hours"	5.1
Drawn to (indoor) home activities when should be working	6.3
Drawn to outdoor leisure activities when should be working	2.5
Drawn to leisure, other activities (location not specified) when should be working	1.3
Drawn to friends, socializing when should be working	1.3

Socializing

Lack of time to be with friends (or keep in touch)	2.5
----------------------------------------------------	-----

Pressure

When working and other household needs	2.5
Irregular work pattern or work overload	3.8
Scheduling, general	2.5
Personal life has first priority/makes sudden demands	1.3
Household member doesn't like respondent working in home	1.3
General conflict between social life and work life	1.3
Constant strain between work and childcare	3.8
Babysitter directs work times	1.3
Other than above	10.1

Appendix X

REPORTED CHANGES IN RELATIONSHIPS, STRESS, SATISFACTION AND CONFLICT
SINCE WORKING AT HOME

	<u>Increased A Lot</u>	<u>Increased Somewhat</u>	<u>Stayed the Same</u>	<u>Decreased Somewhat</u>	<u>Decreased A Lot</u>	<u>Mean</u>	<u>(n)</u>
Amount of communication with household members	12.6%	39.1%	40.2%	8.0%	0.0%	2.44	(87)
Amount of communication with friends	3.0	10.9	53.5	21.8	10.9	3.27	(101)
Quality of relationship with spouse/companion	5.1	44.9	44.9	5.1	0.0	2.50	(78)
Quality of relationship with children	16.2	44.1	33.8	5.9	0.0	2.29	(68)
Quality of relationship with friends	4.0	22.8	57.4	15.8	0.0	2.85	(101)
Satisfaction with job	52.9	34.3	10.8	2.0	0.0	1.62	(102)
Satisfaction with home life	20.8	35.6	38.6	4.0	1.0	2.29	(101)
Feelings of stress around work	6.0	24.0	20.0	29.0	21.0	3.35	(100)
Feelings of stress around home life	2.0	19.2	43.4	26.3	9.1	3.21	(99)
Conflicts between work and home activities	5.2	30.9	26.8	24.7	12.4	3.08	(97)
Conflicts at home over how time is used	4.5	33.7	42.7	13.5	5.6	2.82	(89)
Conflicts at home over way space is used	6.3	20.0	62.5	8.7	2.5	2.81	(80)
Quality of housekeeping and maintenance	7.9	32.7	29.7	24.8	5.0	2.86	(101)

Appendix Y

DIFFERENCES IN RELATIONSHIP, STRESS, SATISFACTION AND CONFLICTS FOR DIFFERENT HOUSEHOLD TYPES

Amount of Communication with Friends

<u>Mean Rank</u>	<u>Average Hours Worked</u>	<u>(n)</u>
45.70	20 Hrs or less	(23)
46.18	20.1 - 40	(46)
58.32	40.1 - 60	(22)
69.25	60.1+	(10)

$$H = 8.688 \alpha < .05$$

Satisfaction with Job

<u>Mean Rank</u>	<u>Household Organization</u>	<u>(n)</u>
40.53	Strong	(35)
52.56	Moderate	(49)
61.21	Weak	(14)

$$H = 8.067 \alpha < .01$$

<u>Mean Rank</u>	<u>Household Control</u>	<u>(n)</u>
35.66	Strong	(16)
53.84	Moderate	(46)
52.71	Weak	(38)

$$H = 6.23 \alpha < .05$$

Stress Around Work

<u>Mean Rank</u>	<u>Average Hours Worked</u>	<u>(n)</u>
52.19	20 Hrs or less	(24)
57.64	20.1 - 40	(45)
40.02	40.1 - 60	(22)
35.89	60.1+	(9)

$$H = 8.431 \alpha < .05$$

<u>Mean Rank</u>	<u>Business Meetings</u>	(n)
44.57	Business Meetings	(56)
55.05	No Business Meetings	(41)

$$H = 3.0480 \alpha = .06$$

Stress Around Home Life

<u>Mean Rank</u>	<u>Average Hours Worked</u>	(n)
51.87	20 Hrs or less	(23)
57.92	20.1 - 40	(45)
37.68	40.1 - 60	(22)
35.72	60.1+	(9)

$$H = 10.97 \alpha < .01$$

Conflict Between Home and Work

<u>Mean Rank</u>	<u>Household Occupancy Type</u>	(n)
64.86	Solo	(14)
50.71	Adults Only	(29)
44.19	Full Nest	(49)
41.80	Single Parent	(5)

$$H = 6.75 \alpha = .08$$

Conflict Over Time Use

<u>Mean Rank</u>	<u>Household Occupancy Type</u>	(n)
56.80	Solo	(10)
50.44	Adults Only	(26)
41.90	Full Nest	(48)
22.90	Single Parent	(5)

$$H = 8.614 \alpha < .05$$

Quality of Housecleaning, Maintenance

<u>Mean Rank</u>	<u>Average Hours Worked</u>	<u>(n)</u>
52.38	20 Hrs or less	(24)
43.22	20.1 - 40	(46)
57.34	40.1 - 60	(22)
71.61	60.1+	(9)

$$H = 9.513 \alpha < .05$$

<u>Mean Rank</u>	<u>Household Organization</u>	<u>(n)</u>
41.90	Strong	(34)
49.73	Moderate	(49)
63.68	Weak	(14)

$$H = 6.45 \alpha < .05$$

Appendix Z

TYPE OF HOUSEHOLD RESPONSIBILITIES ASSUMED BY OTHERS AFTER STARTING WORK AT HOME

	<u># of Households</u>
Childcare	8
General housecleaning, housekeeping: more	9
General housecleaning, housekeeping: all	10
Tidy, picking up: all	1
Vacuum: more	2
Vacuum: all	2
Major meal preparation (e.g. cooking, preparing): more	3
Major meal preparation: all	5
Minor meal preparation (e.g. warming food, setting table): more	1
Major meal clean-up (e.g. washing dishes, cleaning up): more	3
Minor meal clean-up: all	1
Laundry: more	3
Laundry: all	4
Maintenance chores: more	1
Maintenance chores: all	1
Grocery shopping: more	2
Running errands (including driving household members) outside home: more	2
Running errands outside home: all	2
Garden/outdoor work: more	4
Spouse's business	1
Answer phone/door: all	1
Finances, household budget, pay bills: all	1
"Do more" (unspecified)	2
40 cases, 69 responses	

Appendix AA

TYPE OF HOUSEHOLD RESPONSIBILITY ASSUMED BY HOMEWORKER AFTER STARTING WORK AT HOME

	<u># of Households</u>
Childcare	8
General housecleaning, housekeeping: more	7
General housecleaning, housekeeping: all	3
Tidy, picking-up: more	6
Tidy, picking-up: all	1
Vacuum: more	1
Major meal preparation (e.g. cooking, preparing): more	3
Major meal preparation: all	2
Minor meal preparation: all	1
Major meal clean-up (e.g. washing dishes, cleaning up): more	3
Laundry: more	1
Laundry: all	4
Indoor plant care: all	1
Grocery shopping: more	1
Grocery shopping: all	2
Running errands (including driving household members) outside home: more	3
Running errands outside home: all	3
Supervise repair/maintenance people at home: more	1
Supervise repair/maintenance people at home: all	2
Garden/outdoor work: more	4
Walk dog, pet care: all	2
Spouse's business	2
Finances, household budget, pay bills: more	1
Finances, household budget, pay bills: all	1
"Do more" (unspecified)	6
43 households, 69 responses	

Appendix BB

KRUSKAL-WALLIS MEAN SUMS OF EXTENT OF DISTRACTION FROM SPECIFIED SOURCES WHILE WORKING, FOR TEMPORAL, SPATIAL AND MENTAL OVERLAP

Temporal Overlap

<u>Distraction From:</u>	<u>Much overlap</u>	<u>Very Distinct</u>	
Sound or sight of TV	30.59	31.25	$H = .0419, n.s.$
Music	31.61	30.63	$H = .0909, n.s.$
Messy house	28.54	31.72	$H = .5835, n.s.$
View of refrigerator	30.64	30.42	$H = .0149, n.s.$
View of outdoors	29.17	32.11	$H = .8208, n.s.$
Dishwasher noise	24.72	27.44	$H = .9646, n.s.$
Phone ringing	27.15	33.33	$H = 2.407, n.s.$
Visitors at front door	25.93	34.07	$H = 4.0598, \alpha < .05$
Children	20.82	28.59	$H = 4.0723, \alpha < .05$
Other household members	28.72	29.15	$H = .0120, \alpha = .9127$
(n)	(23)	(38)	

Spatial Overlap

<u>Distraction From</u>	<u>Much Overlap</u>	<u>Very Distinct</u>	
Sound or sight of TV	33.45	41.06	$H = 2.1285, n.s.$
Music	35.27	40.76	$H = 1.3115, n.s.$
Messy house	29.00	41.22	$H = 3.5458, \alpha < .06$
View of refrigerator	36.10	40.00	$H = 6.800, \alpha < .01$
View of outdoors	41.41	39.77	$H = .0948, n.s.$
Dishwasher noise	27.95	35.63	$H = 4.6359, \alpha < .05$
Phone ringing	31.55	41.37	$H = 2.1599, n.s.$
Visitors at front door	38.77	40.20	$H = .0496, n.s.$
Children	32.72	34.77	$H = .1117, n.s.$
Other household members	34.85	36.77	$H = .1004, n.s.$
(n)	(11)	(68)	

(Appendix BB: 2 of 2)

Mental Overlap

<u>Distraction From:</u>	<u>Much overlap</u>	<u>Very Distinct</u>	
Sound or sight of TV	28.22	32.36	$H = 1.619, n.s.$
Music	30.31	30.65	$H = .0122, n.s.$
Messy house	28.07	31.63	$H = .8029, n.s.$
View of refrigerator	29.77	30.18	$H = .0442, n.s.$
View of outdoors	31.44	29.73	$H = .2819, N.S.$
Dishwasher noise	24.20	29.15	$H = 4.4329, \alpha < .05$
Phone ringing	27.89	32.64	$H = 1.2917, n.s.$
Visitors at front door	28.46	32.17	$H = .9323, n.s.$
Children	22.83	31.72	$H = 6.2772, \alpha < .01$
Other household members	25.56	31.50	$H = 3.0227, \alpha < .08$
(n)	(27)	(33)	

(The lower the number, the greater the distraction)

TABLE CC
Desired Physical Features in Ideal Workspace,
For Different Work Characteristics
And Household Organizations

	Work Characteristic: <i>Help Others</i>					
	<i>Little</i>		<i>Moderate</i>		<i>Much</i>	
	<i>Must</i>	<i>Must+Nice</i>	<i>Must</i>	<i>Must+Nice</i>	<i>Must</i>	<i>Must+Nice</i>
Direct entrance from outside	11.1	55.5	16.9	64.4	31.4	74.3
Separate room for work	66.7	100.0	86.4	96.6	91.4	97.1
Workspace detached from house	0	11.1	3.4	23.7	11.4	54.3
Separate conference room	0	44.4	10.2	47.5	22.9	68.6
Separate client wait room	0	33.3	3.4	23.7	11.4	54.3
Adjoining bathroom	44.4	55.5	33.9	78.0	54.3	88.6
View to rear yard	22.2	77.8	25.4	84.7	22.9	65.7
View to street	11.1	55.5	25.4	74.6	20.0	60.0
Openable windows	66.7	88.9	81.4	96.6	65.7	91.4
No visual access to rooms	33.3	44.4	28.8	71.2	37.1	62.9
Shut off from noise	55.6	88.9	69.5	94.9	71.4	88.6
Dimmer for light control	11.1	77.8	22.0	77.9	25.7	77.1
Phone line	100.0	100.0	98.3	100.0	94.3	94.3
Business phone line	33.3	55.5	57.6	84.7	68.6	88.6
Answering machine	44.4	88.8	67.8	86.4	85.7	94.3
Copy machine	11.1	55.5	35.6	78.0	34.3	91.4
Control over temperature	88.9	100.0	67.8	96.6	80.0	97.1
Furniture designed for office	77.8	100.0	67.8	96.6	65.7	97.1
Built-in storage	55.6	100.0	57.6	98.3	68.6	94.3
Acoustical device	0	75.0	26.4	81.1	40.6	81.2
Bulletin display board	22.2	66.7	39.0	78.0	42.9	65.7
Ceiling lighting	22.2	55.6	66.1	89.8	51.4	77.1
Table or desk lamps	62.5	100.0	76.3	91.5	62.9	80.0
Yard space	22.2	66.7	20.3	67.8	31.4	60.0
Patio or balcony	11.1	66.7	13.6	71.2	25.7	77.1
Exercise place in home	22.2	77.8	25.4	72.9	37.1	68.6
(n)	(9)		(59)		(35)	

	<u>Work Characteristic: Friendship Opportunities</u>					
	<u>Little</u>		<u>Moderate</u>		<u>Much</u>	
	<u>Must</u>	<u>Must+Nice</u>	<u>Must</u>	<u>Must+Nice</u>	<u>Must</u>	<u>Must+Nice</u>
<i>Direct entrance from outside</i>	18.2	63.6	22.7	63.6	23.1	76.9
<i>Separate room for work</i>	78.8	97.0	86.4	95.5	96.2	100.0
<i>Workspace detached from house</i>	6.1	18.2	4.5	40.9	7.7	38.5
<i>Separate conference room</i>	12.1	54.5	13.6	47.7	15.4	65.4
<i>Separate client wait room</i>	3.0	39.4	6.8	38.6	3.8	34.6
<i>Adjoining bathroom</i>	45.5	72.7	36.4	81.8	46.2	84.6
<i>View to rear yard</i>	24.2	87.9	25.0	75.0	23.1	69.2
<i>View to street</i>	27.3	72.7	27.3	65.9	7.7	65.4
<i>Openable windows</i>	81.8	93.9	79.5	100.0	57.7	84.6
<i>No visual access to rooms</i>	21.2	57.6	34.1	70.5	42.3	69.2
<i>Shut off from noise</i>	69.7	93.9	65.9	88.6	73.1	96.2
<i>Dimmer for light control</i>	21.2	81.8	20.5	77.3	26.9	73.1
<i>Phone line</i>	100.0	100.0	97.7	100.0	92.3	92.3
<i>Business phone line</i>	57.6	78.8	56.8	84.1	65.4	88.5
<i>Answering machine</i>	63.6	93.8	70.5	81.8	84.6	96.2
<i>Copy machine</i>	30.3	69.7	31.8	81.8	38.5	92.3
<i>Control over temperature</i>	84.8	97.0	63.6	97.7	76.9	96.2
<i>Furniture designed for office</i>	72.7	100.0	68.2	93.2	61.5	100.0
<i>Built-in storage</i>	57.6	97.0	63.6	95.5	61.5	100.0
<i>Acoustical device</i>	25.8	83.9	26.3	78.9	37.5	79.2
<i>Bulletin display board</i>	30.3	75.8	47.7	77.3	34.6	61.5
<i>Ceiling lighting</i>	63.6	81.8	56.8	81.8	50.0	84.6
<i>Table or desk lamps</i>	59.4	87.5	84.1	90.9	61.5	84.6
<i>Yard space</i>	27.3	66.7	18.2	61.4	30.8	69.2
<i>Patio or balcony</i>	18.2	69.7	15.9	72.7	19.2	76.9
<i>Exercise place in home</i>	24.2	81.8	31.8	68.2	30.8	65.4
(n)	(33)		(44)		(26)	

	Work Characteristic: Variety					
	Little		Moderate		Much	
	<u>Must</u>	<u>Must+Nice</u>	<u>Must</u>	<u>Must+Nice</u>	<u>Must</u>	<u>Must+Nice</u>
Direct entrance from outside	5.0	40.0	30.4	71.7	18.9	75.7
Separate room for work	75.0	95.0	87.0	97.8	91.9	97.3
Workspace detached from house	10.0	25.0	8.7	26.1	0	45.9
Separate conference room	0	20.0	19.6	60.9	13.5	64.9
Separate client wait room	0	25.0	4.3	41.3	8.1	40.5
Adjoining bathroom	20.0	65.0	56.5	93.5	35.1	70.3
View to rear yard	15.0	85.0	23.9	78.3	29.7	73.0
View to street	20.0	80.0	21.7	67.4	24.3	62.2
Openable windows	75.0	90.0	73.9	93.5	75.7	97.3
No visual access to rooms	30.0	60.0	37.0	67.4	27.0	67.6
Shut off from noise	70.0	90.0	73.9	97.8	62.2	86.5
Dimmer for light control	15.0	85.0	32.6	82.6	13.5	67.6
Phone line	95.0	95.0	97.8	100.0	97.3	97.3
Business phone line	65.0	90.0	60.9	80.4	54.1	83.8
Answering machine	30.0	70.0	82.6	91.3	81.1	97.3
Copy machine	15.0	55.0	39.1	84.8	35.1	89.2
Control over temperature	70.0	95.0	73.9	97.8	95.7	97.3
Furniture designed for office	60.0	100.0	67.4	93.5	73.0	100.0
Built-in storage	50.0	95.0	58.7	97.8	70.3	97.3
Acoustical device	18.8	62.5	34.1	82.9	27.8	86.1
Bulletin display board	40.0	80.0	32.6	73.9	45.9	67.6
Ceiling lighting	60.0	90.0	56.5	80.4	56.8	81.1
Table or desk lamps	60.0	90.0	68.9	88.9	78.4	86.5
Yard space	10.0	50.0	32.6	65.2	21.6	73.0
Patio or balcony	5.0	60.0	26.1	71.7	13.5	81.1
Exercise place in home	30.0	65.0	26.1	78.3	32.4	67.6
(n)	(20)		(46)		(37)	

	<i>Work Characteristic: Household Organization</i>					
	<i>Little</i>		<i>Moderate</i>		<i>Much</i>	
	<i>Must</i>	<i>Must+Nice</i>	<i>Must</i>	<i>Must+Nice</i>	<i>Must</i>	<i>Must+Nice</i>
<i>Direct entrance from outside</i>	16.7	58.3	26.5	71.4	14.3	64.3
<i>Separate room for work</i>	80.6	97.2	91.8	98.0	78.6	92.9
<i>Workspace detached from house</i>	0	36.1	10.2	36.7	7.1	21.4
<i>Separate conference room</i>	16.7	50.0	16.3	65.3	0.0	28.6
<i>Separate client wait room</i>	5.6	41.7	6.1	42.9	0.0	14.3
<i>Adjoining bathroom</i>	36.1	77.8	49.0	81.6	35.7	78.6
<i>View to rear yard</i>	22.2	86.1	30.6	75.5	14.3	57.1
<i>View to street</i>	30.6	69.4	20.4	69.4	14.3	64.3
<i>Openable windows</i>	83.3	94.4	71.4	98.0	71.4	85.7
<i>No visual access to rooms</i>	33.3	72.2	30.6	69.4	35.7	42.9
<i>Shut off from noise</i>	63.9	94.4	67.3	89.8	78.6	92.9
<i>Dimmer for light control</i>	13.9	75.0	26.5	83.7	21.4	64.3
<i>Phone line</i>	97.2	97.2	98.0	100.0	92.9	99.0
<i>Business phone line</i>	66.7	91.7	53.1	79.6	64.3	78.6
<i>Answering machine</i>	72.2	83.3	73.5	98.0	57.1	71.4
<i>Copy machine</i>	41.7	80.6	30.6	87.8	21.4	64.3
<i>Control over temperature</i>	77.8	97.2	71.4	95.9	71.4	100.0
<i>Furniture designed for office</i>	75.0	91.7	65.3	100.0	64.3	100.0
<i>Built-in storage</i>	61.1	100.0	61.2	95.9	64.3	92.9
<i>Acoustical device</i>	24.2	75.8	31.8	86.4	25.0	66.7
<i>Bulletin display board</i>	33.3	66.7	38.8	73.5	50.0	78.6
<i>Ceiling lighting</i>	66.7	83.3	46.9	81.3	57.1	78.6
<i>Table or desk lamps</i>	75.0	91.7	75.0	91.7	42.9	71.4
<i>Yard space</i>	27.8	66.7	24.5	65.3	21.4	57.1
<i>Patio or balcony</i>	19.4	69.4	16.3	75.5	21.4	64.3
<i>Exercise place in home</i>	22.2	66.7	36.7	77.6	14.3	57.1
(n)	(36)		(49)		(14)	

	<i>Work Characteristic: Household Control</i>					
	<i>Little</i>		<i>Moderate</i>		<i>Much</i>	
	<i>Must</i>	<i>Must+Nice</i>	<i>Must</i>	<i>Must+Nice</i>	<i>Must</i>	<i>Must+Nice</i>
<i>Direct entrance from outside</i>	6.3	68.7	25.5	63.8	21.1	69.4
<i>Separate room for work</i>	93.8	100.0	78.7	97.9	92.1	94.7
<i>Workspace detached from house</i>	6.3	50.0	8.5	29.8	2.6	31.6
<i>Separate conference room</i>	0	56.3	14.9	53.2	18.4	52.6
<i>Separate client wait room</i>	0	43.8	4.3	38.3	7.9	34.2
<i>Adjoining bathroom</i>	31.3	87.5	55.3	83.0	28.9	71.1
<i>View to rear yard</i>	18.8	93.7	21.3	80.9	31.6	65.8
<i>View to street</i>	25.0	62.5	25.5	78.7	18.4	57.9
<i>Openable windows</i>	81.3	100.0	78.7	93.6	71.1	94.7
<i>No visual access to rooms</i>	56.3	81.2	29.8	70.2	23.7	52.6
<i>Shut off from noise</i>	75.0	93.7	70.2	95.7	63.2	86.8
<i>Dimmer for light control</i>	18.8	75.0	31.9	91.5	10.5	60.5
<i>Phone line</i>	100.0	100.0	100.0	100.0	92.1	98.0
<i>Business phone line</i>	75.0	93.7	61.7	85.1	50.0	76.3
<i>Answering machine</i>	56.3	81.2	70.2	87.2	78.9	94.7
<i>Copy machine</i>	25.0	62.5	38.3	83.0	28.9	84.2
<i>Control over temperature</i>	62.5	100.0	76.6	95.7	76.3	97.4
<i>Furniture designed for office</i>	75.0	94.7	63.8	97.9	73.7	97.4
<i>Built-in storage</i>	56.3	100.0	57.4	100.0	71.1	92.1
<i>Acoustical device</i>	30.8	76.9	31.7	87.8	27.0	73.0
<i>Bulletin display board</i>	31.3	68.7	36.2	76.6	44.7	68.4
<i>Ceiling lighting</i>	68.8	81.2	55.3	87.2	52.6	76.3
<i>Table or desk lamps</i>	81.3	100.0	60.9	87.0	76.3	84.2
<i>Yard space</i>	18.8	68.7	29.8	59.6	21.1	68.4
<i>Patio or balcony</i>	12.5	75.0	23.4	72.3	13.2	71.1
<i>Exercise place in home</i>	25.0	81.2	31.9	80.9	26.3	55.3
(n)	(16)		(47)		(38)	