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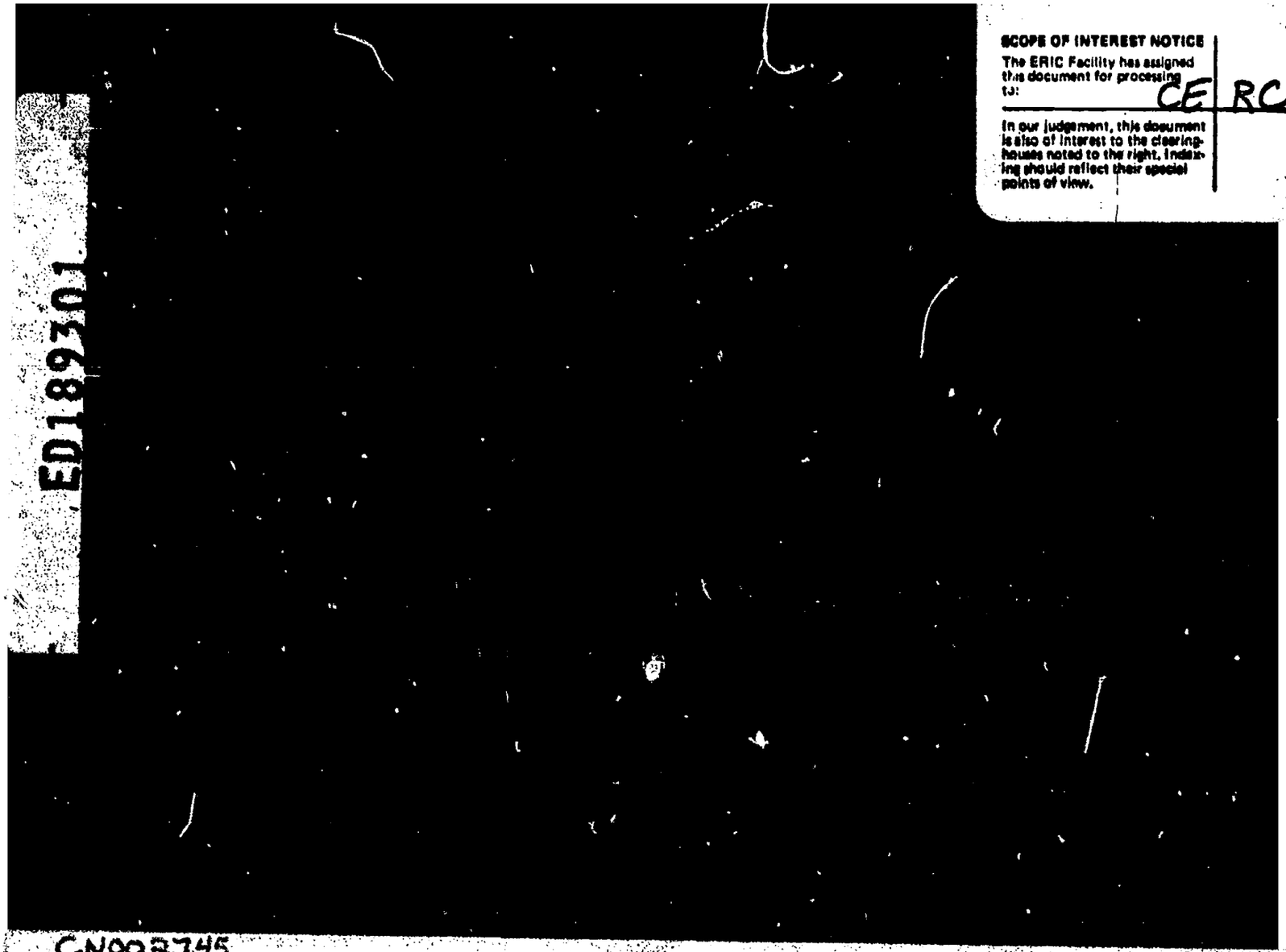
ABSTRACT

A study evaluated career attainment and job satisfaction of young adults from nonmetropolitan Washington and identified factors influencing them. Results were based on data collected in a 1973 mail survey of members of high school classes graduating in 1965 and 1966. Career attainment was measured by occupation, earnings, place of work, and education beyond high school. The survey showed male annual earnings peaking at $7,000-$9,999, while most females earned $5,000-$9,999. The most common place of work for men was large towns; one-third of the employed women worked in large cities. About two-thirds had some college training. In general, their career attainment was similar to that for the United States population aged 25-34 in 1970. Analysis of job satisfaction considered these job characteristics: self-actualization, ego status, belongingness, safety and order, and basic creature comforts. A 1975 followup survey of the migration proportion of the 1973 sample studied expectations and perceived benefits and costs of moving. The majority migrated to get more education. A more enjoyable lifestyle was identified as the greatest single benefit, leaving relatives and friends as the greatest single cost. The income, educational, and occupational characteristics of parents were also generally directly associated with the educations and occupations of the respondents. (YLB)



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Employment Opportunities, Job Satisfaction, and Migration Among Young Adults From Nonmetropolitan Washington

Donald A. West and Dorothy Z. Price[1]

Summary and Implications

Youth from nonmetropolitan areas, in common with most other youth, make a series of career-related decisions around the time they complete high school. The choices they make then influence socio-economic aspects of their careers and the satisfaction they derive from their jobs. In the past, many nonmetropolitan youth had to migrate from their local communities to get more education and jobs. For some, this is still a possibility but with the changing values of society in recent years, the revitalization of rural America, and the resurgence in rural population growth, more opportunities are becoming available in nonmetropolitan areas.

This study evaluates the career attainment and job satisfaction of young adults from nonmetropolitan Washington and identifies factors influencing them. Results are based on data collected in a mail survey of members of high school classes graduating in 1965 and 1966 from schools in nonmetroplitan areas of the state. A follow-up survey of the migrating proportion of the sample took a closer look at their expectations and their perceived benefits and costs of moving. Results from the study are applicable to other situations, but remember that they are based on responses of high school graduates from nonmetro areas who made career decisions in the late 1960s and early 1970s.

Occupation, earnings and place of work were used to measure career attainment. In general, the young adults were successful in their movement into responsible positions. In comparisons to all U.S. young adults aged 25-34 years in 1970, relatively high proportions of both men and women entered professional occupations. Substantial proportions of the men had skilled or semi-skilled blue collar positions. Earnings of the young men varied, but on the average were slightly below those for the census comparison group. Part of this earnings difference was likely due to lack of job experience, since their average age was less than that of the U.S. group. Conversely, employed females in the sample earned more than the U.S. group.

Nonmetropolitan areas provided jobs for roughly four-fifths of the young men and two-thirds of the employed women. Towns with more than 2,500 people and small cities up to 50,000 in population were principal places of work for the men. Large cities provided employment for a larger proportion of the young women than did either small cities, towns or rural areas.

Persons in professional and managerial positions earned somewhat more than persons in other occupations. Both males and females employed in urban areas earned more than those working in rural areas. However, large cities offered no apparent advantage in earnings over smaller cities or large towns.

About two-thirds of both sexes had some college training and roughly one-third completed 2 or more years. Additional education was related to occupation, as expected; the majority of those in professional and managerial positions had over 2 years of college.

Respondents had not experienced desired amounts of satisfaction from their jobs at the higher need levels of self-esteem and self-actualization. Their desired levels of satisfaction for the three lower needs in the Maslowian hierarchy—basic creature comforts, safety and order, and belongingness—were generally met. Job characteristics most important to individuals when seeking jobs were those related to self-actualization and to basic creature comforts. The self-actualization need, an important job motivator, was accorded a "most-important" ranking by a majority of respondents.

The occupational groups that were relatively the most satisfied were male farmers and female homemakers. The most job dissatisfaction existed at the higher need levels and was relatively highest among members of the armed forces and the unemployed. Among the young men, job dissatisfaction was inversely related to income. Job satisfaction for males appeared to be affected little by whether or not they had migrated, but migrant women were more dissatisfied at the belongingness level than were nonmigrants.

Overall, dissatisfaction with one's job appears to be an important concern among the population sampled, particularly at the higher need levels. This dissatisfaction in an environment where many respondents were relatively successful economically suggests further study of job satisfaction is needed. With the expanding role of women in the labor force, particular attention to nonmetropolitan job environments for women with and without families may be justified. The relative degree of satisfaction found among the full-time homemakers may be a reflection of the child-bearing stage in the life cycle common to many of these young women. Further study of job satisfaction among women of all ages may identify some meaningful job characteristics important to women as their role in the labor force increases.

Geographic mobility generally fulfilled migrants' expectations. The desire for further education was a primary reason for moving. Only about one-fifth of the men and one-third of the employed women worked in metropolitan areas. Since all persons sampled were graduates of non-

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metro schools, this finding indicates that the nonmetro-to-metro movement of the 1950s was not dominant among these Washington youth in the late 1960s and early 1970s. Small cities and towns were destinations for many. This pattern of movement is consistent with the recent changing values: greater emphasis on rural amenities and freedom from the pollution and congestion of large cities.

Benefits from moving identified by respondents also reflect the changing value structure. By far the largest proportion said that a more enjoyable life style was the greatest benefit; they ranked this choice well above economic considerations of getting a job or improving income. The traditional psychic trauma of leaving relatives and friends was still the dominant cost of moving.

Socio-economic background factors, as identified by characteristics of parents, formed expected associations with career plans, educational attainment and occupations of the young adults studied. Their years of education were directly related to the incomes and educations of their parents. Sons tended to enter occupations similar to those of their fathers. Since job opportunities are more limited in the farming sector, many sons of farmers entered other occupations, particularly the professions.

Overall, most of the youth surveyed developed successful careers. However, remember that the sample was restricted to high school graduates and the experiences of youth not enjoying this privilege could well be different. Economic considerations played a role both in decisions of the youth and in their backgrounds, but did not appear as dominant as in some earlier studies. More important concerns involved job satisfaction and the quest for working environments that allow more enjoyable life styles.

Further work in this area might profitably follow two lines of inquiry. One would be to focus on specific subgroups, such as high school dropouts, who are disadvantaged because of lack of training, discrimination or minority status. With a narrower focus, specific problems amenable to specialized solutions might be identified. The other line of inquiry is the one concentrating on job satisfaction and the social-psychological dimensions of career development. These are apparently becoming more important to individuals as they seek fulfillment from their work.

Introduction

The increased awareness and emphasis on human resource development, which emerged nationally in the 1960s, has since been extended to nonmetropolitan populations. Nonmetropolitan areas have been revitalized through the expansion of industry and increased population retention related, in part, to preferences for rural amenities (20). These events have resulted in further investigation of nonmetropolitan labor markets including job opportunities, job choices, and job satisfaction.

Our study emphasized the supply side of the nonmetropolitan labor market; specifically, we stressed the economic and social-psychological aspects of career choice and job satisfaction. Data used in this study were gathered in mail surveys of young adults who graduated in 1965 and 1966 from high schools in nonmetropolitan Washington.

The process of career choice-making is multifaceted and complex as the work of numerous sociologists and economists testifies (23, 33). For youth at the thresholds of their careers, the choices are many and involve related factors such as additional training and location. For youth from nonmetropolitan areas, not all types of employment and related training opportunities are available locally. Some youngsters do not know how potential earnings vary among geographic regions or occupations. More often, it is hard for them to assess trade-offs among employment opportunities, earnings and amenities associated with nonmetropolitan and metropolitan locations. Most youth have only a limited conception of how satisfying various types of jobs or careers may be, i.e., to what extent their needs for Maslow's basic creature comforts, security, belongingness, self-esteem and self-actualization (19) may be fulfilled.

Purpose

This study was made to investigate these dimensions of career choice for young people originating from nonmetropolitan areas in Washington. Specifically, we wished to learn the types of occupations they entered, their locations and the earnings received. Particular attention was given to the extent to which their chosen careers were satisfying in terms of the Maslowian needs levels. The migration patterns of a subgroup who left their local counties were investigated and related to expectations and reasons for moving. Associations among these various dimensions of career choice were investigated, as well as associations with additional education and the occupations and incomes of parents.

This type of information should be useful to nonmetropolitan youth who will complete their secondary education in the coming years. High school counselors and others who advise youth may find the results helpful in their work. In addition, other researchers can use the findings as a basis for comparison and for suggesting further inquiry. Programs designed to aid youth can be improved if policy-makers and administrators know more about choice processes, priorities, and experience of young people in the labor market.

Framework for Career Choice

Nonmetropolitan youth are a sizable proportion of the population. In 1974, over 56.4 million or about 27% of the nation's 211.4 million inhabitants resided in nonmetropolitan areas (21:7). The 1970 *Census of Population* reported that 1.16 million or 34% of Washington's population were nonmetropolitan (30:49-10).

Youth aged 15-19 constituted 9.7% of Washington's population in that year as compared to 9.4% nationally. Youth also represent a higher percentage of the population in nonmetropolitan areas than in metropolitan areas because of the higher fertility rates among rural populations (4:411-415). In 1970, over 118,000 young people aged 15-19 years lived in nonmetropolitan Washington. (Calculated from 30:49-43 to 49-64). These age groups were 10.2% of the nonmetropolitan population of the state in that year.

Continuing changes in the economic and social life of nonmetropolitan residents have contributed to the complexity of career choice for youth. These changes include technological advance and the associated decline in agricultural employment, expansion of industrial and service employment, and the broadening of value systems (21). Labor mobility, social mobility, and migration have occurred as existing structures have been modified or replaced. Shifts of manpower out of agriculture have helped staff other industries and thereby contributed to economic growth. Unfortunately, however, not all persons have shared equally in the benefits from such changes (26).

Socio-economic factors in job choice

The roles of socio-economic factors affecting job choice and mobility have been structured in a framework adaptable to nonmetropolitan youth by researchers at Purdue University. The framework, developed by Olson (2), modified by Geschwind and Ruttan (14) and further integrated by Cohen and Schuh (10) identifies relationships among factors interacting in career attainment. Characteristics such as age, education, social status, and income influence knowledge of jobs and skills. Although not recognized explicitly, the occupation, education, and income of parents also have an influential role (24). These factors then interact with opportunities for economic and social betterment to provide jobs and geographic mobility for the individual.

Migration plays a supportive role in the framework by permitting the individual to reside where his objectives can be pursued. While local career opportunities depend on the resources and structure of the community, choices for youth are not confined to a single locality. A larger or different geographic area may provide the breadth or quality of opportunities desired. Opportunities for economic betterment are more plentiful in a community with expanding employment opportunities than in one where they are limited. Similarly, opportunities for social betterment are more plentiful in a community where the social structure is open rather than rigid.

The Olson model, as modified and integrated, is adaptable to this study where the transition from high school to careers is viewed as a process or sequence of events. This adaptation is consistent with Piker's view that entry into the labor force is an organized process yielding different degrees of success, depending on the methods and routes used (24). In the process, occupational choice may be for many a selection of alternatives from a broad occupational field. For others, choice may be constrained by social class, economic resources of the family, or other pressures on the individual. Similarly, location, earnings, or job satisfaction may be the products of essentially unconstrained choices or decisions constrained by events that prevented attainment from being consistent with desired objectives.

Motives, aspirations, values, and their relative strengths are often identifiable in the behavior of individuals (21). Participants learn that job mobility, migration, or, in some cases, maintenance of the status quo help them achieve the economic or social status they desire. Slocum has pointed out that most Americans appear motivated to achieve recognition as successful persons (28). There is evidence that rural youth and their parents have aspirations and expectations for college education, and recognize it as a basis for occupational success.

Job satisfaction: its role in job choice

Job satisfaction is the dimension or outgrowth of career choice that deals with social-psychological elements. Levels of attainment of human needs are considered in relation to levels desired. In an era when the range of job opportunities is expanding and economic constraints weakening, job satisfaction may be increasingly important in choosing work environments.

Seashore and Barlowe (27) recently reported that job dissatisfaction is widespread and may stem more from job settings than from defects in the worker. These researchers found that workers often said their jobs were unsatisfactory when they failed to provide opportunities for the individual to perform well in work, to find personal achievement and growth in competence, and to contribute something personal and unique to the work. A related study by Deci (11) showed jobs provided satisfaction when the activities involved were inherently interesting and gratifying. Other studies show similar results for both white and blue collar workers. With changing life styles and value systems among young people, a broader view of value systems, life styles, and perceptions of work is needed when considering job satisfaction.

A number of theorists (e.g. Argyris and Bennis) have stated that approaches to jobs vary among individuals and are related to the basic need level of the individual at that time. This theoretical explanation draws upon the psychological concept of self-actualization, originated by Goldstein (15) and redefined by Maslow (19).

Self-actualization is part of a theory of human motivation based on the individual as an integrated, organized whole. Human needs are seen as universal and fall into a hierarchy. From bottom to top, the ranks are: physiological or basic creature comfort; security, safety and order; love and belongingness; self-esteem or ego-status; and self-actualization. As one level of needs is satisfied to a given degree, the individual moves to higher levels until self-actualization is reached. This need is never totally satisfied. The person at this level experiences on-going growth and development of individual potential.

From a given point, an individual is motivated to seek satisfaction of the highest need not yet met. An environment encouraging satisfaction of this and, subsequently, higher needs will generally be the most stimulating and satisfying. The significance of unsatisfied needs in a work context lies in the type of goals and behavior that the need invokes and the degree to which the job setting meets these needs.

The job satisfaction concept has been used extensively in studies of employees and employers. Argyris suggests that satisfaction from a job is highest when the work setting permits expression of behaviors associated with the currently predominant need levels. When congruence is minimal, many forms of adaptive behavior are found. These include leaving the job, defense reactions such as daydreaming and aggression, becoming apathetic at work,

and acculturation of youth by older workers to adopt these attitudes toward work (3).

Intrinsic and extrinsic sources of sources of job satisfaction were examined by Centers and Bugental (9). Herzberg; et al. (17) concluded that extrinsic motivators and dissatisfiers are related to low need levels while intrinsic sources of satisfaction and motivators are related to high need levels.

The low level of needs—basic creature comforts, safety and order, and to some degree, belongingness—are seen as potential sources of dissatisfaction on the job. When basic creature comfort needs are predominant, they are reflected by concerns for pleasant working conditions, more leisure time, more luxurious personal property, avoidance of physical discomfort, and increased salary. Concern with safety and order needs focuses attention on issues of security, predictability, and protective rules and regulations. With belongingness needs at a high level, there is concern for friendly colleagues, opportunities for interaction with others, team memberships, and harmonious interpersonal relations.

Individuals stressing higher needs are more concerned with work motives. Ego-status needs lead a person to seek opportunities to display competence in order to gain social and professional recognition. One looks for opportunities for advancement and job assignments that allow skills to be displayed and make one a planner. A prevalent self-actualization need level indicates a striving for innovation and creative activities, greater ego-involvement, and increased investment of one's self in one's work. There is a definite desire for challenging, meaningful work where a person can gain a sense of personal growth, achievement, and satisfaction.

One's approach to work, as reflected by current need levels, is also influenced by family background (22). The evidence on parents' influence on work orientation, particularly the work ethic, is conclusive. Overall family life apparently also contributes to future work activities of children (16). The life style of the family is considered to be one of the most relevant variables.

Approaches to problem solving also reflect life style. Trust in self and others, willingness to manipulate others, flexibility, and similar traits can be identified by observing approaches to decision making. Values also stem from the family and affect one's perspective of work; some values reflect higher need levels than others. Family background appears important in determining job satisfaction as well as job choice.

The career attainment model

The Olson socio-economic framework of job choice and the Maslowian hierarchy of need levels provide the basis for the career attainment model presented in figure 1. The schemata portrays the three major sets of influences —socio-economic characteristics, job satisfaction elements, and migration factors—hypothesized as determinants of career attainment. The variables in the lower section of the diagram beginning with family background are hypothesized determinants of the level of earnings, job satisfaction, and geographic location.

Through their aspirations and motivations, youths' decisions regarding additional education and training are influenced by the incomes, occupations and educations of their parents and the locations where they were raised. The amount of education and training received then contributes to job skills, information, and occupational choice. These, in turn, determine the level of earnings. These earnings are one of the three components contributing to career attainment.

Similarly, family background and education are believed to influence the position of young adults in the needs level hierarchy. Progression through the various need levels is determined by the motivations and socio-economic characteristics of the individual. The resulting satisfaction one derives from a job represents another important part of career attainment.

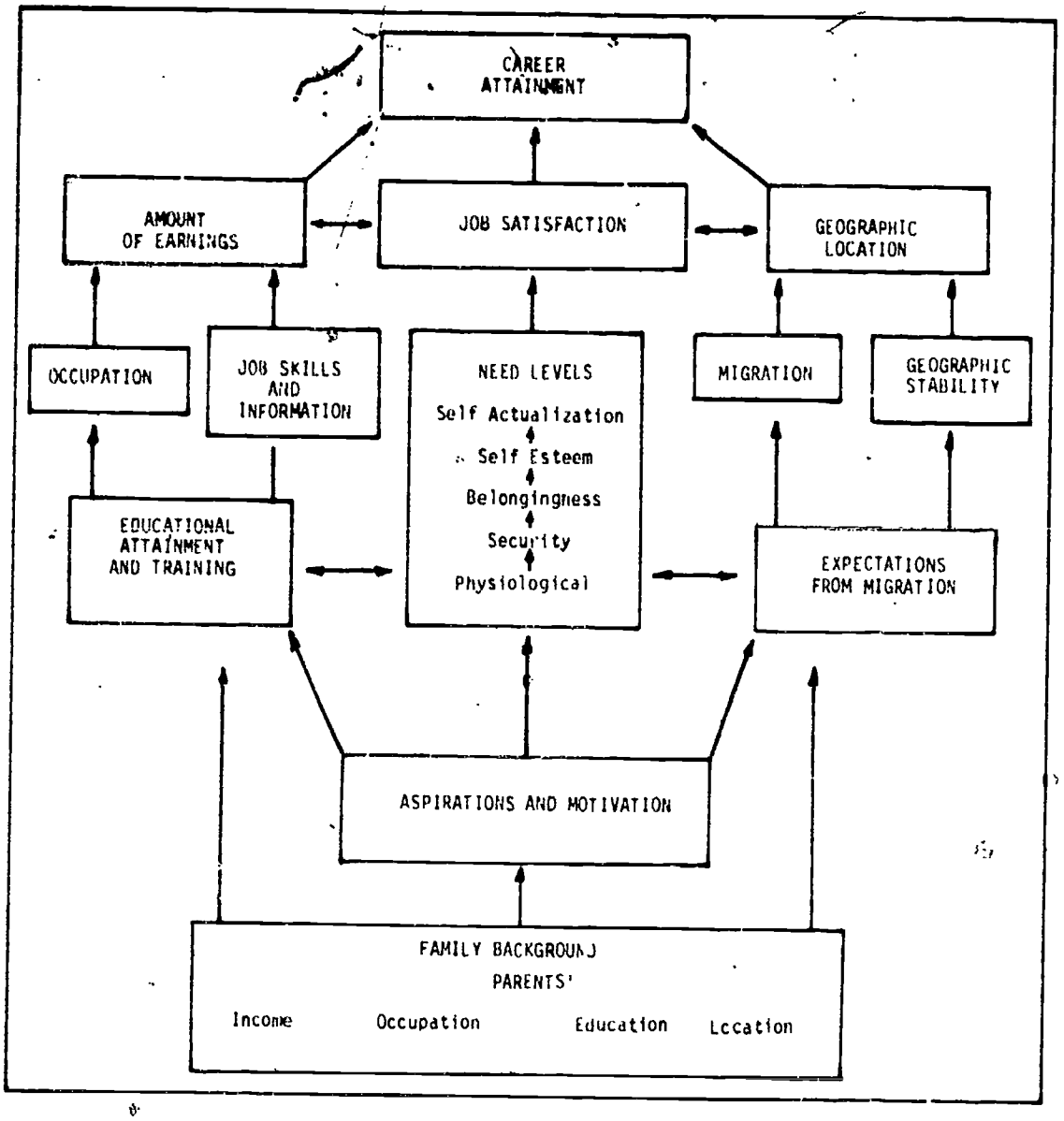
Migration is viewed as a facilitating process in the model. Youths form expectations as to how a change in location might open up new opportunities for education or employment. In other cases, these opportunities exist close to where a youngster was raised and such mobility is not viewed as necessary. Youth may choose to migrate or remain where they are on the basis of these expectations. Once the decision is made and the action taken, the expectations may or may not be fulfilled. In either case, geographic location is determined. This location may influence the amount of earnings and satisfaction derived from one's job as well as the other location amenities that contribute to career attainment.

Interactions exist among various components of the model, especially for factors such as education and training. The interactions are both determinants and outcomes of aspirations and motivations; they contribute to and are influenced by fulfillment of specific need levels; and they interact similarly with the migration variables. Other interactions exist among the amount of earnings and need levels being met at a given time. Expectations from migration and the outcomes may also interact with the job satisfaction components.

Many, but not all of the variables in the model can be measured. Aspirations and motivations are not quantified in this study. Rather, they are viewed as mechanisms through which family background and experience can be related to measurable outcomes such as occupation, earnings and geographic movement. Several other characteristics are not represented explicitly. Two of the more important, age and community background, are controlled by restricting the sample to young adults who attended nonmetropolitan high schools. Overall, the model reflects a problem common to multidisciplinary research, i.e., the lack of a well recognized body of theory that has been refined over a period of years. However the model represents a process vital to youth from nonmetropolitan areas and one that succeeding classes of the young people will face.

Methods and Procedures

The data for the study were collected in a mail survey of young adults who had graduated in 1965 or 1966 from high schools in nonmetropolitan Washington. Nonmetro-



1. Schematic representation of career attainment model.

politan Washington as defined by the 1960 *Census of Population* included all areas except Clark, King, Pierce, Snohomish, and Spokane Counties. The nearly 200 high schools in the nonmetropolitan areas were screened for size and location. The largest and smallest schools were not included in the sample design in the interest of obtaining accurate addresses and efficiency (see the appendix for details). The listing of nonmetropolitan schools was then further reduced to 48 via random selection. The 48 schools were asked to supply name and address lists for their 1965 and 1966 graduating classes. Twenty-two responded, supplying more than 3,000 names and addresses from which 2,335 were randomly selected.

A mail survey, complete with follow-up procedures, was completed in 1973. Respondents were asked to provide information on their current occupation, location, and income. Indirect questioning was used to gather data on job satisfaction. Additional information obtained included the education and other socio-economic characteristics of respondents and the occupations, educations and incomes of their parents.

Out of the initial mailing, 581 questionnaires (35%) were returned because of no forwarding address, improper identification, or death of the addressee. Usable questionnaires were returned by 1,059 of the remaining 1,754 persons contacted, a response rate of 61%. (Response rates by geographic area are given in appendix table A-1.) Tests were conducted for nonresponse bias based on the relationships among the interval from initial mailing to receipt of the questionnaire and values for education, occupation, location, and earnings. For additional detail, see West and Hoppe (32:12). The Chi-square test for independence showed there was no significant relationship between the length of interval and these characteristics ($P < 0.1$). This test indicates that nonresponse bias was not a serious problem for the variables tested.

A follow-up mail survey of 1973 respondents who had migrated, i.e., those not residing in the county where they attended high school, was conducted in 1975. (Note: It is possible that in multi-county school districts some students could have attended high schools in a county adjoining the one where they resided and thus have been classified as migrants. This number is believed to be quite small, however.) About 39% of the males and 53% of the females responding in 1973 were classified as migrants. In the follow-up survey, they were asked to provide information on their migration history, their reasons for moving, and the benefits and costs of the move. Approx-

imately one-third of the migrants were not contacted because their addresses were obsolete and no forwarding addresses were available. Of those contacted, 61 men and 120 women provided usable responses.

Results from analysis of the survey data are in the following sections. When interpreting and applying the results, the type of population sampled should be kept in mind. They are young adults whose education, occupations, earnings, and other characteristics reflect their experience up to that time. The validity of applying the results to other people will depend on how closely that population resembles the one from which the data were collected.

Experience of the Young Adult: Survey Results

Career attainment

Occupation, earnings, place of work, and education beyond high school were used to measure career attainment of members of the sample. Occupation is a major component of stratification systems developed by sociologists (8:23-76). The occupational rankings are associated with income and its principal component, earnings. These latter measures are widely used by economists (8:26-27). Job location or place of work has become more important in recent years in terms of its association with the cultural, aesthetic, and environmental aspects of locations that contribute to job satisfaction and overall quality of life. Education beyond high school is included because of its direct association with earnings and some occupations.

The occupational distribution of young adult men is in figure 2. The largest single category is professional workers. This group represented 22% of the men in the 11 major occupational categories. Twenty percent of the men in the United States were aged 25-34 years in 1970 (reference table A-2).[2] Roughly two-thirds of U.S. males are craftsmen, operatives and service workers. Although the percentage of farmers in the Washington young adult group is not large, it is roughly three times that for the U.S. group. This likely reflects the metropolitan background of the sample.

Slightly over half of the young women were employed either full-time or part time. About two-fifths (21%) of all the female respondents were in professional occupations. This compares with 21% of the U.S. females, aged 25-34 years in 1970, in this category. The percentage of clerical workers in the sample is slightly larger than in the U.S. group, while percentages of service workers and operatives are lower. This latter comparison likely reflects proportionately fewer operative positions for women in the Pacific Northwest than in more heavily industrialized states.

[2]The reference tables are not printed as part of this bulletin, but are available on request from the senior author, department of agricultural economics, Washington State University, Pullman, WA 99164.

Earnings

Annual earnings of the male respondents form a distribution that peaks in the $7,000-9,999 category (figure 3). About one-sixth had earnings above this level while over half earned less. A larger percentage, 14%, of the male respondents had earnings in the category below $3,000 than did the U.S. males aged 25-34 in 1970 and reporting earnings for 1969, 7% (reference table A-3, available on request). About 30% of the young U.S. males earned more than $10,000 while only 17% of the sample males are in these categories. These differences may be due in part to age differences. Ages of the sample men centered around 25, while the average age of the U.S. males in the census data was nearer 30 years. The earnings of the U.S. group likely reflect increases due to more experience than that of the younger men from nonmetropolitan Washington.

Over three-fifths of the younger women reported annual earnings. This means that about one-fourth of those who reported homemaking as their occupation also earned some compensation. Most had earnings ranging from $5,000 to $9,999. Unlike the men, in 1970, Washington women earned more than all-U.S. females aged 25-34.

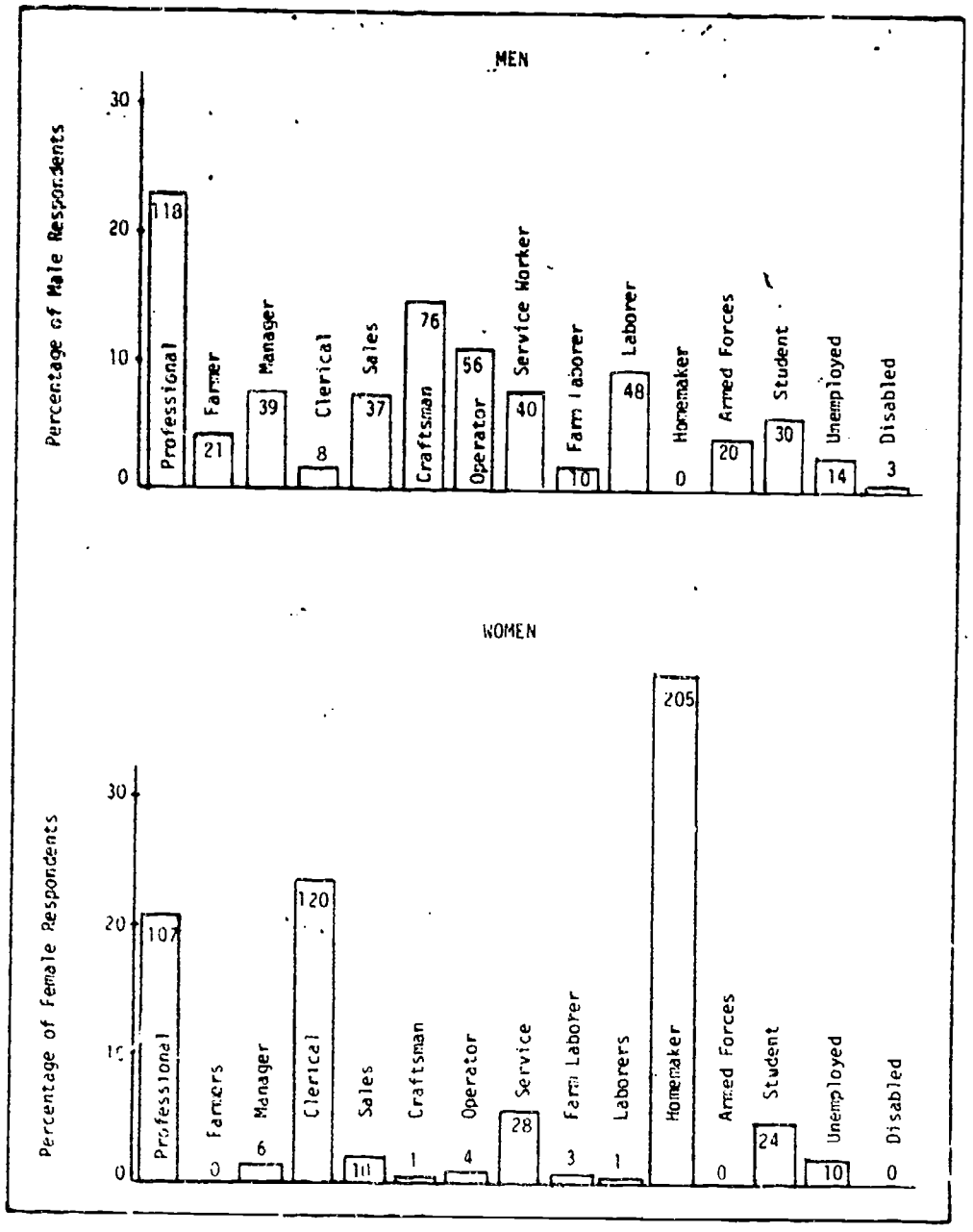
A smaller proportion of the women in the sample, 24%, reported annual earnings of less than $3,000 than did the U.S. women, 36% (reference table A-3). About 6% reported earnings of $10,000 or more, roughly twice the percentage of U.S. females in this category. Possible explanations for this difference are that the Washington women, well represented in the professional occupations, are indeed earning higher salaries or that the sample contains relatively fewer part-time workers than does the U.S. group.

Place of work

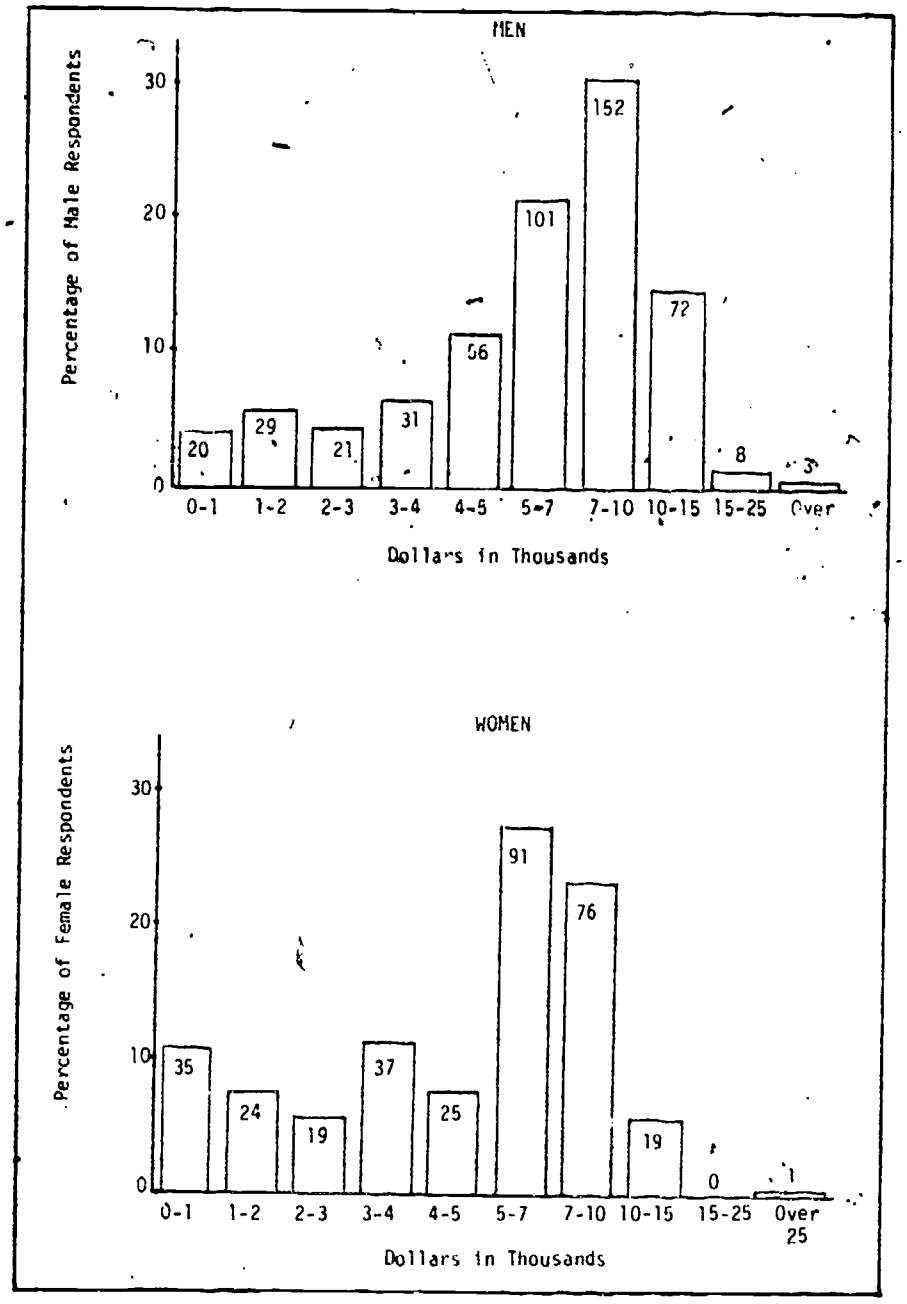
Place of work reflects both location preferences of individuals and availability of employment. Over half of Washington residents of all ages prefer to live in towns or cities with less than 50,000 population (12:9). One's place of work reflects opportunities, satisfaction with location, and mobility alternatives available to youth raised in less densely populated areas.

The most common place of work for men in the sample was large towns, defined as those with 2,500-10,000 people, followed closely by small cities of 10,000-50,000 people and large cities with over 50,000 (figure 4). Slightly over one-fifth (21.4%) were employed in large cities (metropolitan areas). Approximately 30% were employed in the rural areas, which include farms, open country, and towns of less than 2,500 people. In total, almost four-fifths were employed in nonmetropolitan areas. This distribution indicates that the movement of the men into metropolitan areas for employment was not large.

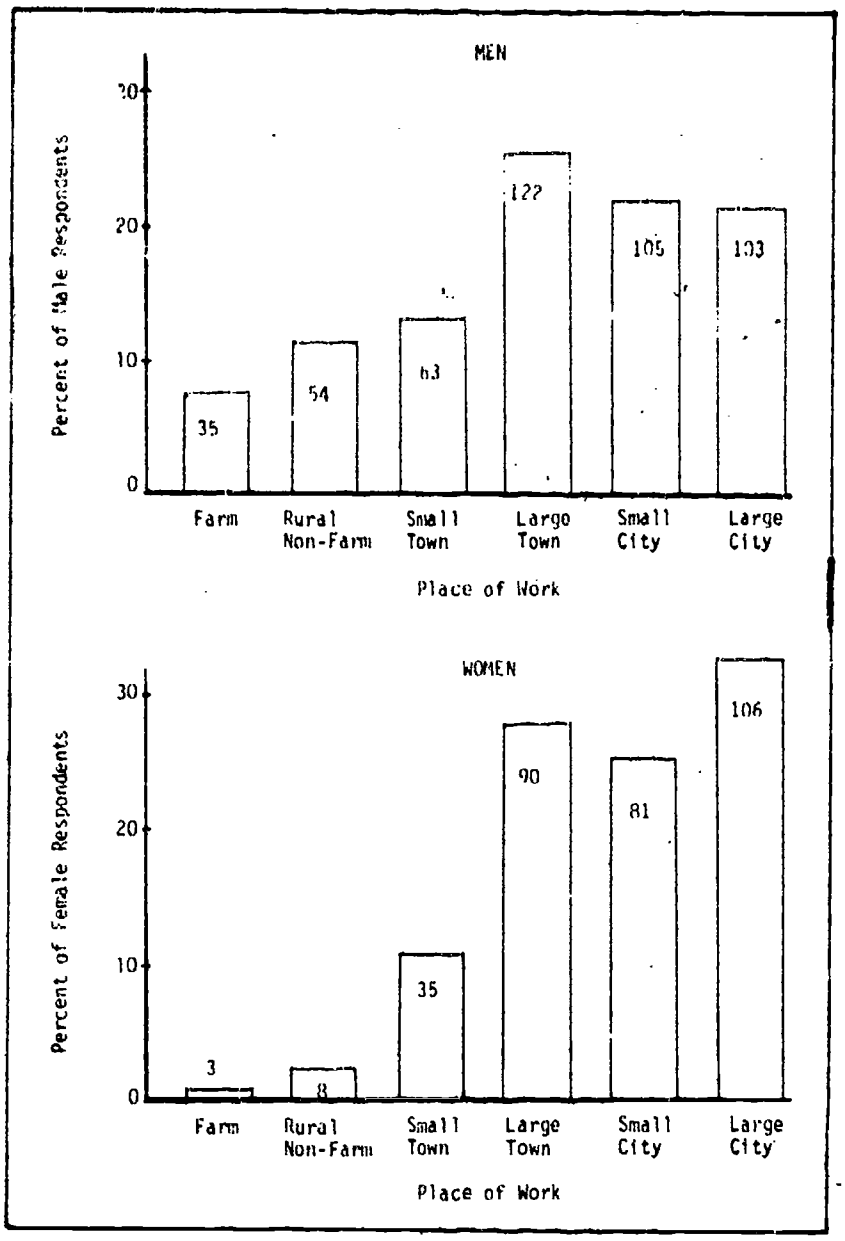
Greater movement into metropolitan areas was evident among the younger women who were employed. Of the three-fifths who were working, about one-third were employed in large cities. About one-fourth were working in small cities, and a similar proportion had jobs in towns with 2,500 to 10,000 population. In contrast to the men, less than 14% of the working females were employed in rural areas.



2. Occupations of young adult men and women from nonmetropolitan Washington. Numbers on the bars show the number of respondents.



3. Annual earnings of young adult men and women from nonmetropolitan Washington Numbers on the bars show the number of respondents.



4. Place of work for employed young adult men and women from nonmetropolitan Washington. Numbers on the bars show the number of respondents.

Association between occupation and earnings

Significant relationships existed among occupation and earnings for men and women working full-time (table 1). Men in the white-collar occupations—professionals, managers, clerical and sales workers—and farmers, craftsmen and operatives earned more than men in other occupations. Differences among these occupational groups with higher earnings were small. Because those surveyed were relatively young, persons in occupations requiring several years of training beyond high school lacked time to gain much experience in their jobs. Their earnings may rise as they get more experience.

Among the young women working full time, the modal category of earnings for professional workers was $7,000-9,999 as compared to $4,000-6,999 for clerical and sales and for service workers. Homemakers and students, whose employment was secondary to their other roles, generally earned less than $4,000 annually. Mean earnings for women working full-time was $6,554 as compared to $7,265 for the men.

Earnings and place of work were related among the male portion of the sample. Men employed in towns and cities generally earned more than men employed on farms and in rural areas although differences were small (table 2). Men employed in towns with over 2,500 people and in cities were more likely to have earnings in the over-$10,000 category than those employed in smaller places. Earnings in large cities were no greater than earnings in towns and smaller cities.

Nearly all employment for women was in towns and cities. Earnings and place of work were not significantly related (table 2). The distribution of earnings differed little among places, although mean earnings were highest in small cities (10,000 to 50,000 population). More women were employed in large cities, both full time and part time, than in other places.

Education

Acquisition of additional education and training was involved in the transition to career status for the majority

Table 1: Annual Earnings of Young Adults From Nonmetropolitan Washington by Occupation

(percentage distribution[a])

Annual Earnings	Occupation[b]							
	Professional and Manager	Farmer	Clerical and Sales	Craftsmen and Operatives	Service Workers	Laborers, Farm and Nonfarm	Other	Percent of All Workers
MEN, ALL WORKERS								
$ 0-3,999	12	15	11	17	26	28	39	19
4,000-6,999	30	50	36	27	38	32	48	33
7,000-9,999	35	10	39	35	28	32	11	31
10,000 & over	24	25	14	21	8	9	2	17
Total	100[c]	100	100	100	100	100	100	100
Mean Earnings, $	7770	7425	6966	7226	5641	5895	4534	7265
WOMEN, Full-Time Workers								
$ 0-3,999	11	--	21	50	39	100	75	20
4,000-6,999	30	--	55	25	44	0	0	41
7,000-9,999	46	--	22	25	6	0	25	31
10,000 & over	13	--	3	0	11	0	0	8
Total	100	--	100	100	100	100	100	100
Mean Earnings, $	7598	--	5815	4375	6125	3000	3750	6554
WOMEN, Part-Time Workers								
$ 0-3,999	50	--	78	--	67	100	88	74
4,000-6,999	33	--	15	--	33	0	12	20
7,000-9,999	17	--	7	--	0	0	0	6
10,000 & over	0	--	0	--	0	0	0	0
Total	100	--	100	--	100	100	100	100
Mean Earnings, $	4292	--	2908	--	3208	1000	2206	2972

Tests of Independence--Men: $\chi^2_2=50.966$ df=18 p<.001
Women, Full-Time: $\chi^2_2=45.249$ df=18 p<.001
Women, Part-Time: $\chi^2_2=11.302$ df=12 nonsignficant

a. Percentages are based on responses from 482 men, 227 women working full time, and 67 working part-time, all of whom reported both occupation and earnings.
b. More detailed tables are available from the author on request.
c. Percentages may not sum to totals because of rounding.

of the respondents. About two-thirds of both men and women had some college training; the amount of additional education varied considerably. Table 3 shows that 29% of the young men and 31% of the young women attended college for 1 month to 2 years. About a third of the men and slightly fewer women completed 2 to 4 years of higher education. About 9% of the males and 5% of the females continued their education for more than 4 years.

Vocational training was obtained by about a fifth of the young women and a smaller proportion of the young men (table 3). Among the young women who had some vocational training, the largest proportion (20%) received amounts ranging from 1 month to 1 year. About 10% of the young men had up to 1 year of training, with smaller percentages receiving 1 to 4 years.

About 9% of both sexes reported some combination of college instruction and vocational training. In most cases, vocational training was combined with up to 2 years of college.

Additional education was significantly associated with occupations among both male and female members of the sample (table 4). Approximately three-fourths of the professionals and managers had 2 or more years of college education. These results reflect the job qualifications required for entrance into these two white-collar positions. Note also that four-fifths of those entering farming had college training.

Additional education appeared less important for craftsmen and operatives. About half of the men in these occupations had less than 1 month of college training and only about one-sixth had received any vocational train-

Table 2: Annual Earnings of Young Adults from Nonmetropolitan Areas by Place of Work (percentage distribution[a])

Place of Work	Annual Earnings: $ 0-3,999	$4,000-6,999	$7,000-9,999	$10,000 & Over	Percent of all Workers	Mean Earnings
MEN, ALL WORKERS						
Nonmetropolitan Areas						
Farm	11	10	7	8	7	$6,614
Rural Nonfarm	17	10	11	10	11	6,796
Small Town <2,500	17	11	14	10	13	6,796
Large Town, 2,500-10,000	24	28	24	22	25	7,224
Small City, 10,000-50,000	10	18	28	29	22	8,295
Metropolitan Areas						
Large City >50,000	21	23	21	21	22	7,005
Total	100[b]	100	100	100	100	7,266
WOMEN, Full-Time Workers						
Nonmetropolitan Areas						
Farm	0	0	0	0	0	$ --
Rural Nonfarm	2	2	4	0	3	6,667
Small Town <2,500	11	11	13	0	11	6,080
Large Town, 2,500-10,000	30	21	32	12	26	6,008
Small City, 10,000-50,000	20	29	23	41	26	6,906
Metropolitan Areas						
Large City >50,000	37	37	28	47	35	6,289
Total	100	100	100	100	100	6,427
WOMEN, Part-Time Workers						
Nonmetropolitan Areas						
Farm	0	0	0	-	0	$ --
Rural Nonfarm	4	0	0	-	3	500
Small Town <2,500	20	7	0	-	16	2,636
Large Town, 2,500-10,000	29	27	40	-	29	2,925
Small City, 10,000-50,000	20	20	40	-	22	3,533
Metropolitan Areas						
Large City >50,000	27	47	20	-	30	3,500
Total	100	100	100	-	100	3,112

Tests of Independence--Men: $x^2=25.414$ df=15 $p<.05$
Women, Full-Time: $x^2=10.021$ df=12 nonsignificant
Women, Part-Time: $x^2=7.476$ df=8 nonsignificant

a. Percentages are based on responses from 466 men, 236 women working full-time and 69 working part-time.
b. Percentages may not sum to total because of rounding.

ing. Formal vocational training was not dominant among workers in any particular occupation, suggesting that required skills for many jobs may have been developed from work experience.

Most young women in professional and managerial occupations had been to college. More than four-fifths of the women in these occupations had 2 or more years of college training.

Young women employed in clerical positions had a wide range of college training, ranging from none to more than 4 years. About a third of this group also had some vocational training. The qualifications of women entering clerical work thus varied considerably, and apparently, so did job requirements, or else many clerks were over qualified. Women who were full-time homemakers, the dominant group in the "other" category, also differed widely in years of education, with some having 4 years of higher education. Many members of this group may have been temporarily out of the labor force, or were using their additional training in homemaking. There was no significant association between additional education and earnings for the men (table 5). Mean earnings varied by only $700 across the education categories. Earnings were actually lowest for those with more than 4 years of college training.

The absence of a strong relationship between education and earnings for the young men is likely due to the short time they had been on the job. In particular, those who were in college most of the time between high school and the time of the survey would have had considerably

Table 3: College and Vocational Training of Young Adults Graduating from Nonmetropolitan High Schools in Washington

(percentage distribution[a])

Amount of Training	College		Vocational Training	
	Men	Women	Men	Women
None	29	34	81	75
1 mo. - 1 yr.	14	19	10	20
1 - 2 yrs.	15	12	5	3
2 - 4 yrs.	34	30	3	2
>4 yrs.	9	5	0	0
Total[b]	100	100	100	100

a. The percentages are based on responses from the 497 men and 524 women who reported their educational attainment.
b. Percentages may not sum to totals because of rounding on responses from the 497 males and 524 females who reported their eduational attainment.

Table 4: College Education of Young Adults from Nonmetropolitan Washington by Occupation
(percentage distribution[a])

Amount of College Education	Occupation[b]							Percent of all Workers
	Professional and Manager	Farmer	Clerical and Sales	Craftsmen and Operative	Service Worker	Laborer, Farm and Nonfarm	Other	
				MEN				
None	14	20	25	49	32	40	18	29
Up to 2 yrs.	18	50	34	33	34	40	23	29
2 - 4 yrs.	51	30	39	16	29	13	43	33
More than 4 yrs.	16	0	2	2	5	6	16	9
Total	100	100	100	100	100	100	100	100
				WOMEN				
None	6	-	44	40	50	50	41	35
Up to 2 yrs.	10	-	38	40	28	25	36	30
2 - 4 yrs.	70	-	17	20	18	25	20	30
More than 4 yrs.	13	-	2	0	4	0	3	5
Total	100	-	100	100	100	100	100	100

Tests of Independence--Men: $x^2=123.59$ d.f.=18 $p<.001$
Women: $x^2=150.94$ d.f.=15 $p<.001$

a. Percentages are based on responses of 478 men and 502 females who reported both education and occupation.
b. More detailed tables available from the authors on request.

Table 5: Annual Earnings of Young Adults from Nonmetropolitan Washington by Amount of College Education (percentage distribution[a])

Amount of College Education	Annual Earnings $ 0-3,999	$4,000 6,999	$7,000 9,999	$10,000 and over	Percent of all Workers	Mean Earnings
MEN, ALL WORKERS						
None	28	29	30	22	28	$ 7,140
Up to 2 yrs.	23	32	29	33	30	7,550
2 - 4 yrs.	35	33	31	36	33	6,997
More than 4 yrs.	14	6	10	9	9	6,419
Total	100 [b]	100	100	100	100	7,151
WOMEN, Full-Time Workers						
None	28	35	17	17	27	$ 6,067
Up to 2 yrs.	31	29	17	17	25	5,670
2 - 4 yrs.	30	34	54	67	42	7,102
More than 4 yrs.	11	2	11	0	7	5,813
Total	100	100	100	100	100	6,445
WOMEN, Part-Time Workers						
None	33	14	40	-	30	2,619
Up-to 2 yrs.	33	14	40	-	30	2,643
2 - 4 yrs.	29	57	20	-	34	3,729
More than 4 yrs.	6	14	0	-	7	3,300
Total	100	100	100	-	100	3,077

Tests of Independence--Men: $x^2 = 8.81$ df=9 nonsignificant
Women, Full-Time: $x^2 = 25.629$ df=9 $p<.01$
Women, Part-Time: $x^2 = 6.175$ df=9 nonsignificant

a. Percentages are based on responses from 447 men, 236 women working full-time and 71 working part-time.

less job experience than those who began full-time employment shortly after high school graduation. As their job experience increases, earnings of the college-trained will likely increase faster than those of persons with less formal training. This should be especially true for those who were still attending colleges and were working part-time when the survey was taken.

A significant relationship did exist between earnings and education of the young women employed full time (table 5). Earnings were higher for those with 2-4 years of college than for workers in any other education category. However, relatively fewer women than men had annual earnings above $10,000. Earnings of women working part-time were not related to education. This may have been due to lack of experience for the more highly educated or variation in the number of hours worked.

In general, career attainment for Washington nonmetropolitan youth, as measured by their occupations, earnings, and places of work, was similar to that for the U.S. population aged 25-34 in 1970; however, some differences were apparent. Higher percentages of the Washington youth surveyed entered professional occupations while the proportions of men in clerical positions and women in operative positions were smaller. More of the men raised in nonmetropolitan areas earned less than $3,000 than did the U.S. males. This may be due to the younger age of the Washington men and their lack of job experience. In contrast, the working women respondents earned slightly more than the U.S. group, possibly because of fewer part-time workers among respondents.[3] About one fifth of the men and a third of the working women raised in nonmetropolitan Washington had moved to metropolitan areas.

The Washington young adults who responded were relatively well educated, a characteristic influenced somewhat by the restriction of the sample to high school graduates. The expected relationships between some occupa-

[3]Information on part-time workers is not available in the Census of Population data.

tions and additional training reflects the higher education required for entrance into these types of work. The expected association between education and earnings was not evident among the young men surveyed, probably because those with more training had less job seniority. A direct relationship between education and earnings was found among the young women employed full-time.

Analysis of Job Satisfaction

Information on job satisfaction was gathered with an indirect line of questioning. Respondents were given 25 statements about jobs and asked to rank them by importance to them and relevance to their current jobs. Five statements were used to reflect each of the five basic needs as described by Maslow. In addition, participants listed the three most important and three least important factors they would consider in looking for a new job. The responses were scored and means were computed to indicate how the degree of job satisfaction varied among the respective need levels. Subgroup means were computed to show variation across occupation and income categories.

Job satisfaction scores were determined by measuring discrepancies among characteristics desired in a job and those actually present in the current job. Possible scores could range from 0 (total satisfaction) to 50 (total dissatisfaction). Actual scores ranged from 2 to 39, with a mean score of 10.7. This may appear to be a measure of relatively little dissatisfaction, but note that participants tended to express moderate rather than high expectations for need satisfaction from their jobs. With a possible high of 75 for need expectations, the mean was only 40.5. Even with this moderate expectation, jobs still failed to meet the expected level.

Ratings of job characteristics were analyzed in order to determine the relative importance of the five separate needs to participants and the degree to which current job environments provided opportunities for satisfying each of these needs. Table 6 shows that self-actualization needs were most important, i.e., among need levels desired, they are the category with the lowest mean. Next in importance among the men are safety and order, followed by ego-status. These same two need levels were expressed by the women as well, although their order of importance was reversed. Ranked least important were the basic creature comfort needs. In a society where these basic needs are generally well satisfied for a large portion of the population, this result is anticipated.

Disparity between need levels desired and need levels fulfilled provides the most important insights. Only basic creature comfort needs and belongingness needs were fully satisfied for both sexes. Safety and order needs were more nearly satisfied for men, but some disparity between levels desired and fulfilled remained. Safety and order needs were satisfied for women. The two highest levels of need, ego-status and self-actualization, were least satisfied. Since these are the needs that provide intrinsic motivation on the job, job requirements may have been below the capacity of the worker. This table indicates that in general, job settings tended to place little emphasis on activities that appealed to and satisfied a person's creative capacities, even though most respondents considered using such capacity to be very important.

In listing the three most important and the three least important factors they would consider when looking for a job, respondents said those related to self-actualization needs and basic creature comforts were most important. The rankings in table 7 show the vital importance of the self-actualizing aspects of a job. Over three times as many of the statements related to self-actualization were ranked as most important as were listed in the "least important" category.

Although many respondents ranked some characteristics related to basic creature comforts as most essential, a similar number were ranked as least important. These results are mixed, but obviously many respondents recognize basic comfort needs as very important. Perhaps basic needs were not satisfied in youth for many respond-

Table 6: Mean Values of Satisfaction According to Need Levels, by Sex, Young Adults From Nonmetropolitan Washington

Need Level	MEN		WOMEN		ALL	
	Level Desired	Level Present In Job	Level Desired	Level Present In Job	Level Desired	Level Present In Job
Basic Creature Comforts	9.36[a]	8.55	8.77	7.89	9.01	8.21
Safety and Order	7.95	8.35	7.94	7.62	7.94	7.99
Belongingness	8.63	8.31	8.11	7.7[illegible]	8.36	8.03
Ego-Status	9.10	9.44	7.69	8.21	7.78	8.[illegible]
Self-Actualization	7.44	8.93	7.13	8.01	7.27	8.46

[a]The importance of the need level is inversely related to the value of the mean, i.e., the lower the mean, the more important the need level to the respondents.

Table 7: Ranking of Satisfaction Statements According to Need Level by Young Adults from Nonmetropolitan Washington

Need Level	MEN		WOMEN		TOTAL	
	Most Important	Least Important	Most Important	Least Important	Most Important	Least Important
	Number of Statements					
Basic Creature Comforts	536[a]	550	241	303	777	853
Safety and Order	266	187	158	442	424	629
Belongingness	161	357	237	368	398	726
Ego-Status	192	204	211	209	403	413
Self-Actualization	506	147	577	197	1083	344

[a]Each respondent was asked to indentify the three most important statements and the three least important to him/her. All three or none could apply to any one need level. Consequently, the maximum number of statements for any cell was the number of respondents times three. For men this is 1572 (524 x 3) and for women 1605 (535 x 3).

ents and therefore a lingering concern remained. Even if currently satisfied, some respondents may still have feared that these needs could arise again. Because of their basic importance, they remained potent motivators.

Some of the respondents, however, may have come to view the satisfaction of these needs as an expected part of life, and therefore, no longer considered them as primary motivators. A difference at this need level was apparent among the sexes. The young women placed less importance on the basic creature comfort needs than did men. Women still ranked basic creature comforts next to self-actualization needs, but they were a distant second.

Ego-status, safety and order, and belongingness need levels were ranked lower in importance. Among this group, males ranked safety and order higher, while females attached more importance to ego-status. Receiving the fewest "most important" rankings and the most "least important" rankings were statements related to belongingness needs. The need for interaction with friendly colleagues was least important to the young adults, although it was more important for the women than for the men.

Relationships among job satisfaction, occupation, income, and migrant status

Degree of job satisfaction was analyzed in relationship to occupation, income, and migrant status. Difference between the mean level desired and the mean level attained showed that the higher needs, ego status and self-actualization, were not being met (table 8). This relationship held for both white collar and blue collar occupations, with a few notable exceptions. Male service workers showed little dissatisfaction at any level; this was mainly because their anticipations or expectations were lower. On the other hand, males in the armed forces showed considerable dissatisfaction at the needs levels for ego-status and self-actualization. Farmers and homemakers were generally satisfied, compared to persons in other occupations. The survey results support the image of the satisfied farmer and the happy homemaker.

The effect of income (table 9) on job satisfaction is particularly evident for men with incomes ranging from $1,000 to $5,000. The dissatisfaction again was greatest at the levels of ego-status and self-actualization, though some were dissatisfied about safety and order. Surprisingly, even at these lower income levels, dissatisfaction was not expressed at the basic creature comfort level. Dissatisfaction at the ego-status and self-actualization levels remained, though to a lesser degree, as income increased.

Among the young women, the relationship between income and job satisfaction is less clear. There is some evidence of more dissatisfaction at incomes above $5,000. The dissatisfaction here too was primarily at the levels of ego-status and self-actualization. It may be that jobs providing income of less than $5,000 were considered to be strictly part-time and time fillers rather than full-time careers or necessary economic endeavors.

When migration status is considered (table 10), one major implication appears. Job satisfaction levels were similar for migrant and nonmigrant males, but dissimilar for females. Migrant females were more dissatisfied than nonmigrant females at the levels of self-esteem and self-fulfillment, and especially at the level of belongingness. Apparently, the woman finds it much harder to accept and adjust to the needs of moving. This may be because moves are often associated with the occupational advancement of a husband. The lasting dissatisfaction of the fe-

Table 8: Difference in Means for Need Levels Desired and Need Levels Attained by Occupation and Sex, Young Adults From Nonmetropolitan Washington

Occupation	Need Level				
	Basic Creature Comforts	Safety and Order	Belong-ingness	Ego-Status	Self-Actual-ization
Professional:					
Male	-1.6[a]	-0.1	0.1	1.6	1.3
Female	-0.1	-0.6	0.3	0.7	1.0
Clerical:					
Male	-1.1	0.4	-0.2	2.7	2.4
Female	-0.7	0.1	0.0	1.4	1.1
Sales:					
Male	-0.4	0.8	0.0	1.3	1.1
Female	-0.5	-0.2	-0.4	-0.2	2.6
Service:					
Male	-0.9	0.3	-0.9	0.4	0.1
Female	-0.7	0.8	0.4	1.9	0.6
Student:					
Male	-1.3	0.1	-0.7	1.4	2.3
Female	-1.6	-1.2	-1.0	-0.1	1.1
Unemployed:					
Male	-1.1	1.4	-0.4	2.0	4.4
Female	-2.3	-2.5	-1.9	-1.6	-1.2
Farmer:[b]					
Male	-1.6	-0.1	-1.5	0.0	0.1
Manager:[b]					
Male	-1.3	0.7	-0.3	1.0	1.3
Craftsmen:[b]					
Male	-1.7	0.7	-0.2	1.7	1.1
Operator:[b]					
Male	-0.5	1.0	-0.2	2.2	2.0
Farm Laborer:[b]					
Male	-0.5	-0.4	-0.5	1.8	0.5
Laborer:[b]					
Male	0.2	1.7	0.1	2.5	1.4
Armed Forces:[b]					
Male	-1.3	-0.3	-0.1	2.7	3.3
Homemaker:[c]					
Female	-1.1	-0.3	-0.7	0.4	0.5

[a]Desired-Attained; positive scores indicate the extent of job dissatisfaction.
[b]No female respondents.
[c]No male respondents.

male should not be ignored, however, either in relationship to her occupation or to her possible influence on her husband's willingness to remain on the job. It may be a rethinking is needed by couples who consider only the husband's career when contemplating a move.

Migration: Expectations, Benefits, Costs, and Effects

Migration often helps one advance toward or within a career. Many young people change locations to further their education, to seek specific types of jobs or positions. Others move to find working and living conditions consistent with their desires. Migration was singled out for special attention in the study because of the history of nonmetropolitan-to-metropolitan migration in the U.S. and because the frequency of migration is highest among young adults (25). Recent evidence suggests, however, that the nonmetro-to-metro movement is diminishing or even reversing. The Washington youth surveyed provided a good opportunity to study these occurrences because of their nonmetropolitan backgrounds.

In the 1973 survey for this study, a migrant was defined as a person who currently resided in a county differing from the one where he attended high school. By this definition, 29% of the males and 53% of the female respondents had migrated. The follow-up survey of these migrants conducted in 1975 gathered additional recall information. Those contacted were asked why they had moved, their source of migration information, their ex-

Table 9: Differences in Means For Need Levels Desired and Need Levels Attained by Income and Sex, Young Adults From Nonmetropolitan Washington

Annual Income	Need Level: Basic Creature Comforts	Safety and Order	Belong-ingness	Ego-Status	Self-Actual-ization
Less than $1000					
Male	-1.4	0.2	-0.9	-0.2	0.4
Female	-0.6	0.3	-0.5	0.5	1.2
$1000-1999					
Male	-0.6	1.1	0.0	1.5	2.2
Female	-0.7	0.6	-1.1	0.9	1.7
$2000-2999					
Male	0.3	1.8	-0.8	2.8	2.6
Female	-2.1	-0.3	-0.7	0.6	0.3
$3000-3999					
Male	-0.3	0.3	0.1	3.9	2.8
Female	-0.3	-0.2	0.1	0.9	1.1
$4000-4999					
Male	-0.5	1.0	0.0	2.3	2.4
Female	-0.9	0.8	1.0	2.5	2.4
$5000-6999					
Male	-0.6	0.8	0.0	1.5	1.1
Female	-0.7	-0.2	0.3	1.5	1.2
$7000-9999					
Male	-0.9	0.2	0.1	1.9	1.7
Female	-0.6	-0.7	0.3	1.2	0.4
$10,000-14,999					
Male	-1.1	0.0	-0.7	1.1	1.0
Female	-0.1	0.0	-0.3	1.2	0.9
$15,000 and over					
Male[a]	-1.4	-1.8	-2.0	0.4	-0.5

[a]No female respondents.

Table 10: Differences in Means for Need Levels Desired and Need Level Attained by Migration Status and Sex, Young Adults From Nonmetropolitan Washington

Migration Status	Need Level: Basic Creature Comforts	Safety and Order	Belong-ingness	Ego-Status	Self-Actual-ization
Migrant					
Male	-0.8	0.3	-0.3	1.7	1.5
Female	-0.2	0.1	2.4	1.2	1.3
Non-Migrant					
Male	-0.8	0.6	-0.2	1.5	1.6
Female	-1.0	-0.6	-0.7	0.3	0.2

pectations from the move and the degree to which expectations were fulfilled, and their assessment of benefits and costs of the moves.

Reasons for moving and information sources

The majority of respondents to the follow-up survey said their principal reason for migrating was to get more education (table 11). The next highest proportion moved to get a job. The percentage of young women moving for this purpose was less, however, than the proportion who moved to accompany their spouses. Only 5% of the men and none of the women said they moved to increase their incomes.

Most respondents said the expectations from moving were fulfilled, half of both men and women said their expectations were met, and an additional one-third were partially fulfilled (table 12). Less than one-tenth of both sexes were disappointed with their move.

For the men, the degree to which their expectations were fulfilled was associated with the reason for moving. Over three-fourths of those who moved to get a job met their expectations and more than 90% of those who moved to further their education had their expectations at least partially fulfilled. Among the young women, the degree to which expectations were met was independent of the reason for moving.

Sources of information used by migrants in planning their moves included relatives, friends, public employment services and college placement bureaus. When asked to identify the single source they relied on most, both male and female respondents most often named friends (table 13). Relatives were the most important source for the next largest groups of both men and women. Together these two sources were most important for over two-thirds of those completing the survey. College placement bureaus and public employment services were principal sources for only small percentages of the migrants and about 8% said they obtained no information on migration before moving.

The bulk of the information obtained by respondents was accurate and helpful to them in planning moves. About one-third of both men and women rated the information as definitely helpful and accurate and another third said it was accurate and partially helpful (table 14). The helpfulness and accuracy of the information was significantly related to source for both men and women. Relatives provided helpful and accurate information in the highest number of cases, while the information received from friends was at least partially helpful and accurate. Information from public employment services and college placement bureaus was less useful. However, more than half of the migrants relying on these sources found the information accurate and at least partially helpful.

Benefits and costs of migrating

The assessment of benefits and costs of migrating is based on the migrants' perceptions following their move. Among types of benefits, a more enjoyable lifestyle was identified as the greatest single benefit by one-third of the young men and one-half of the women (table 15). The next largest proportions of both sexes considered a more desirable environment the greatest benefit. Smaller percentages listed better jobs and increased incomes as major benefits. The type of benefit viewed as having the greatest impact was not significantly associated with migrants' origins, although slightly higher percentages of respondents from farms and towns said better jobs and increased incomes were major benefits.

The relative importance of the various benefits differs from earlier findings, based on 1962 national data, that a substantial majority of moves are made for economic reasons (18:ch. 3). There are a number of reasons why the results from young adults from nonmetropolitan Washington could differ from those based on a national sample of adults of all ages, even under a constant time frame. Nevertheless, we strongly suspect that the greater emphasis on lifestyle and environment in our results reflects changing preferences that have emerged, particularly among young people, over the past decade (12). Our results appear to be consistent with more recent trends toward multi-faceted objectives that include noneconomic elements.

Table 11: Reasons for Migrating Given by Young Adults From Nonmetropolitan Washington

Reason	Men		Women	
	Number	%	Number	%
Get a Job	14	23	13	11
Get More Education	38	62	92	68
Get Away From Home	4	7	7	6
Increase Income	3	5	0	0
Be With Spouse	2	3	18	15
Total	61	100	120	100

Table 12: Reason for Migrating by Degree to which Expectations Were Fullfilled: Migrants Graduating In 1965 and 1966 from High Schools in Nonmetropolitan Washington

Degree to which Expectations Fulfilled	Reason for Migrating: Get Job	Get More Education	Get Away from Home	Increase Income	Be with Spouse	Percent of Total
			MEN			
Fulfilled	79	53	50	0	50	56
Partially Fulfilled	7	42	25	33	0	31
Little Change	0	3	0	33	0	3
Disappointed with Move	14	0	0	0	0	3
Extremely Disappointed	0	3	25	33	50	6
TOTAL	100	100	100	100	100	100
			WOMEN			
Fulfilled	69	60	14	---	50	57
Partially Fulfilled	31	30	71	---	28	32
Little Change	0	4	0	---	11	3
Disappointed with Move	0	5	14	---	11	6
Extremely Disappointed	0	1	0	---	11	3
TOTAL	100[a]	100	100	---	100	100

Tests of Independence

Males: $x^2 = 44.94$ d.f.=16 $p < .01$

Females: $x^2 = 13.27$ d.f.=12 nonsignificant

[a] Percentages may not sum to total because of rounding.

Table 13: Sources of Migration Information Used by Young Adults From Nonmetropolitan Washington

Most Important Source of Information	Men: Number	Men: %	Women: Number	Women: %
Relatives	22	38	31	29
Friends	24	42	39	36
Public Employment Service	4	7	14	13
College Placement Bureau	2	3	7	6
Other	2	3	9	8
None Obtained	4	7	9	8
Total	58[a]	100	109	100

[a] Three men and 11 women who answered other questions did not report source of migration information.

Table 14: Sources of Migration Information by Helpfulness of Information: Migrants from Nonmetropolitan Washington

Helpfulness of Information	Source of Information: Relatives	Friends	Employment Service	College Placement Bureau	Other	None Obtained	Percent of Total
MEN							
Definitely Helpful and Accurate	45	29	25	50	100	0	36
Partially Helpful and Accurate	36	50	25	0	0	25	38
Not Completely Accurate, but Helpful	18	21	25	50	0	0	19
Accurate, Not Helpful	0	0	0	0	0	0	0
No Use at All	0	0	25	0	0	75	7
TOTAL	100	100	100	100	100	100	100
WOMEN							
Definitely Helpful and Accurate	42	26	36	14	67	0	32
Partially Helpful and Accurate	26	49	14	43	0	22	31
Not Completely Accurate, but Helpful	29	23	50	27	22	0	29
Accurate, Not Helpful	3	0	0	0	0	0	1
No Use at All	0	3	0	14	11	78	10
TOTAL	100[a]	100	100	100	100	100	100

Tests of Independence Males: $x^2 = 79.186$ d.f.=20 P< .005
Females: $x^2 = 39.552$ d.f.=15 P< .005

[a] Percentages may not add to totals because of rounding.

Table 15: Greatest Single Benefit From Migrating as Indicated by Young Adults From Nonmetropolitan Washington

Type of Benefit	Men		Women	
	Number	%	Number	%
Better Job	13	20	13	11
Increased Income	7	11	12	10
More Desirable Environment	15	23	24	20
More Enjoyable Lifestyle	21	32	59	50
Other	9	14	9	8
Total	65	100	117	100

The greatest single cost of migrating identified by roughly three-fifths of both male and female respondents was that of leaving relatives and friends (table 16). This breaking of family and community ties has long been recognized as a major psychic cost of migrating (18:ch. 5). Other costs of moving identified as greatest by a smaller proportion of the sample included higher living costs and more congestion in their destinations. While these results on costs of moving are consistent with many earlier findings, these results also reflect the importance of noneconomic as well as economic elements among migration costs.

Migrant status, earnings, and place of work

Using data from the initial survey, we compared the earnings and places of work of migrants and nonmigrants. Annual earnings were significantly associated with migration for the young women but not for the men (table 17). The percentage distribution by income category and the overall mean show that employed females who did not migrate had somewhat lower annual earnings. Any differences for the men were very small. Apparently one of the outcomes from geographic mobility for the women was higher earnings even though that may not have been their main reason for moving. Remember, the range of earnings for these young adults may expand as the more highly trained ones gain job experience. As this occurs, the relationship between migration and earnings could become stronger, particularly for the men.

As expected, migration is related to place of work (table 18) since the sample was restricted to persons who had graduated from high schools in nonmetropolitan areas.[4] More than three-fourths of the males working in large cities had migrated, as had about two-fifths of those working in small cities. The proportions of female migrants employed in these two places were even larger. Conversely, nonmigrants were more prevalent in rural areas and towns; the proportions were somewhat greater for men than for women.

The nonmigrant status of those employed in nonmetropolitan areas suggests that many were employed near the high school they had attended. Nearly four-fifths of the males were employed in nonmetropolitan areas—small cities, towns and rural areas—and nearly two-thirds of these men were nonmigrants. This suggests that job opportunities for many of them were available in the same county where they attended high school. A higher proportion of the employed young women had migrated, particularly to small and large cities. Perhaps there were fewer job opportunities for them in the nonmetropolitan areas.

Parents' socioeconomic characteristics

The remaining set of forces influencing career attainment considered in this study are those determining the respondents' socio-economic background. Since community factors were controlled by restricting the samples to high school graduates from nonmetropolitan areas, attention was focused on the characteristics of parents. Specifically, we analyzed the associations of parents' incomes, educations, and occupations with respondents' career plans, educations, and occupations.

In the 1973 survey, respondents were asked to recall career plans made at the time they finished high school. Their replies show that two-thirds of the males and five-sixths of the females had planned to attend vocational

[4]Note that small percentages of both male and female nonmigrants worked in large cities which, by definition, are metropolitan areas. Obviously, these persons either commuted across SMSA boundaries to their jobs or had previously commuted from a SMSA to a nonmetropolitan high school.

Table 16: Greatest Single Cost of Migrating as Indicated by Young Adults From Nonmetropolitan Washington

Type of Cost	Men		Women	
	Number		Number	
Leaving Relatives and Friends	34	57	77	66
Leaving Desirable Environment	4	7	8	7
Congested Destination	8	14	12	10
Higher Living Costs	11	18	16	14
Other	2	4	4	3
Total	59	100	117	100

Table 17: Annual Earnings of Employed Young Adults from Nonmetropolitan Washington by Migrant Status (percentage distribution[a])

Migrant Status	Annual Earnings				Total	Mean Earnings
	$ 0-3,999	$4,000-6,999	$7,000-9,999	$10,000 & Over		
			MEN			
Migrant	45	35	39	45	40	$7,174
Nonmigrant	55	65	61	55	60	7,122
Total	100	100	100	100	100	7,143
			WOMEN			
Migrant	45	61	58	60	55	5,852
Nonmigrant	55	39	42	40	45	5,116
Total	100	100	100	100	100	5,518

Tests of Independence--Men: $x^2=2.72$ d.f.=3 nonsignificant
Women: $x^2=6.99$ d.f.=3 $p<.10$

[a] Percentages are based on responses from 500 employed men and 3[illegible]3 employed women.

Table 18: Place of Work by Migrant Status, Employed Young Adults from Nonmetropolitan Washington (percentage distribution)[a]

Migrant Status	Place of Work						
	Farm	Rural Nonfarm	Small Town	Large Town	Small City	Large City	Percent of Total
				MEN			
Migrant	23	35	24	21	39	72	38
Nonmigrant	77	65	76	79	61	28	62
TOTAL	100	100	100	100	100	100	100
				WOMEN			
Migrant	0	50	31	38	49	79	54
Nonmigrant	100	50	69	62	51	21	46
TOTAL	100	100	100	100	100	100	100

Tests of Independence--Males: $x^2=12.713$ d.f.=5 $p<.05$
Females: $x^2=73.544$ d.f.=5 $p<.001$

[a] Percentages are based on responses from 482 men and 323 women.

school or college (table 19). Most of the other young men intended to get a job or enter the military. Most other young women intended to get a job.

The proportions of repsondents who planned to further their education was directly associated with the income levels of parents. This relationship was more pronounced for women than for men. The percentages who planned to get jobs were considerably smaller for both sexes. The relative sizes of these groups were inversely related to parents' incomes, as were the percentages of those whose career plans were undecided.

The principal influence of higher family income appears to have been to encourage, or allow, the youths to further their education. When this option was not chosen, the respondents selected other alternatives in about equal proportions.

The young men and women obtained considerably more education than their parents (table 20). Part of this difference resulted from limiting the sample to those who had completed high school. However, about two-thirds of both young men and women had some education beyond high school as compared to about one-third of their parents. An additional third of the fathers and two-fifths of the mothers were high school graduates. Overall, the mothers had slightly more education than the fathers.

Educational attainment of parents was directly associated with the amount of education that respondents obtained (tables 21 and 22). The association with the fathers' level of education was direct across nearly all categories for both male and female respondents. More than two-fifths of the young men and women whose fathers had some college training had completed 2 to 4 years of college when the survey was taken. While about two-thirds of the respondents whose father did not complete high school had some exposure to college, less than a fourth of this group had completed more than 2 years.

Table 19: Career Plans of Young Adults From Nonmetropolitan Washington by Parents' Income (percentage distribution[a])

Career Plans	Parents' Income				Percent of Total
	< $6,000	6,000-9,999	10,000-14,999	15,000 and over	
MEN					
Attend Vocational School or College	59	64	75	68	67
Get a Job	16	13	5	5	11
Enter Family Business	0	2	2	5	2
Enter Military	10	14	13	16	13
Undecided	14	7	5	5	8
Total	100[b]	100	100	100	100
WOMEN					
Attend Vocational School or College	76	83	88	93	85
Get a Job	14	14	9	3	11
Enter Family Business	0	0	0	0	0
Enter Military	1	0	0	0	1
Undecided	8	3	3	4	4
Total	100	100	100	100	100

Tests of Independence: Men: $x^2 = 25.50$ d.f. = 12 $p < .02$
Women: $x^2 = 23.99$ d.f. = 9 $p < .01$

[a] Percentages are based on responses from 501 men and 481 women.
[b] Percentages may not sum to totals because of rounding.

Table 20: Education of Young Adults From Nonmetropolitan Washington and That of Their Parents (percentage distribution[a])

Educational Attainment	Respondents		Parents	
	Men	Women	Fathers	Mothers
Up Through Grade School	-	-	19	8
Some High School	-	-	19	17
High School Graduate	30	33	32	42
College or Additional Vocational Training	70	67	30	34
Total	100	100	100	100

[a] Percentages may not sum to totals because of rounding.

Table 21: Educational Attainment of Young Adults From Nonmetropolitan Washington by Fathers' Educational Attainment (percentage distribution[a])

Respondents' Educational Attainment	Fathers' Educational Attainment				
	Up Thru Grade School	Some High School	Completed High School	Add'l Vocational or College Training	Percent of Total
MEN					
No College Training	35	34	33	23	30
Up to 2 years	37	26	26	25	28
2-4 years	26	33	34	38	33
More than 4 years	2	7	8	14	8
Total	100[b]	100	100	100	100
WOMEN					
No College Training	40	53	35	20	34
Up to 2 years	33	30	31	30	31
2-4 years	24	15	30	43	31
More than 4 years	3	2	4	8	5
Total	100	100	100	100	100

Tests of Independence: Men: $\chi^2 = 22.81$ d.f. = 9 $p < .02$
Women: $\chi^2 = 44.71$ d.f. = 9 $p < .001$

[a] Percentages are based on responses from 510 men and 524 women.
[b] Percentages may not sum to totals because of rounding.

Table 22: Educational Attainment of Young Adults From Nonmetropolitan Washington by Mothers' Educational Attainment (percentage distribution[a])

Respondents' Educational Attainment	Mothers' Educational Attainment: Up Thru Grade School	Some High School	Completed High School	Add'l Vocational or College Training	Percent of Total
			MEN		
No College Training	40	38	30	21	30
Up to 2 years	31	29	30	25	29
2-4 years	27	32	32	39	34
More than 4 years	2	1	8	14	8
Total	100[b]	100	100	100	100
			WOMEN		
No College Training	36	55	39	19	33
Up to 2 years	36	30	31	30	31
2-4 years	24	15	25	44	31
More than 4 years	3	0	5	7	5
Total	100	100	100	100	100

Tests of Independence: Men: $x^2 = 25.140$ d.f. = 9 $p < .01$
Women: $x^2 = 53.169$ d.f. = 9 $p < .001$

[a] Percentages based on responses from 495 men and 523 women.
[b] Percentages may not sum to totals because of rounding.

The education of the mother was also directly associated with that of her children. The relationship was somewhat more pronounced between mothers and daughters than between mothers and sons. It seems likely that parents would jointly influence the educational plans of their children, but the relationship among members of the same sex appears stronger.

The association of parents' education with that of their children may reflect an interaction with income. The direct relationship between educational attainment and income across the labor force has been well documented (29). Assuming that the father is the dominant income earner in the household, his educational attainment may be more closely related to that of his children through the added income received as a result of his training.

The final association investigated is that between the fathers' occupations and those of their sons.[5] The percentages in table 23 show a direct correspondence between occupations of fathers and sons but some variations do exist. The occupations of the fathers reflect their nonmetropolitan and rural locations in that nearly one-fifth were farmers. The much smaller proportion of respondents in farming (figure 2) and the occupations of these farmers' sons reflect the decline in the amount of labor required for farm production. Nearly all respondents who were farmers came from farm families. However, many of the farmers' sons entered professional, managerial, craftsman and other occupations.

The proportion of fathers who were craftsmen and operatives is also relatively large. More of their sons became craftsmen and operatives than members of any other occupation, although a substantial proportion chose professional occupations. Professionals and managers are the other occupational category that contains sizable proportions of fathers. Over one-third of the professionals' sons and one-fourth of the managers' sons entered professional occupations, but the percentages entering managerial occupations were much smaller. The relatively small num-

[5] The major emphasis in sociological literature in the past appears to have been on occupational structures among men 8:5-10). It seems likely that as more women enter occupations previously denied them or made hard to enter, additional data will become available for examining occupational structure among women.

Table 23: Occupations of Young Adult Men From Nonmetropolitan Washington by Their Fathers' Occupations (percentage distribution[a])

Fathers' Occupations	Occupations of Young Adult Men							
	Professional and Manager	Farmer	Clerical and Sales	Craftsman and Operative	Service Worker	Laborer, Farm and Nonfarm	Other	Percent of Total
Professional and Manager	36	0	34	17	23	17	31	26
Farmer	18	90	23	15	9	20	17	20
Clerical and Sales	4	0	14	4	14	2	8	6
Craftsman and Operative	27	5	18	44	31	31	31	31
Service Worker	6	0	5	3	11	9	8	6
Laborer, Farm and Nonfarm	7	5	7	16	6	17	3	10
Other	2	0	0	1	6	4	2	2
TOTAL	100[b]	100	100	100	100	100	100	100

Test of Independence: $x^2 = 127.02$ d.f. = 36 $p < .001$

[a] Percentages are based on responses from 485 men.
[b] Percentages may not sum to totals because of rounding.

ber of respondents who were managers may be a reflection of the relatively young age and lack of job experience and seniority among the sample.

Overall, the income, educational, and occupational characteristics of the parents were generally directly associated with the educations and occupations of the respondents. These results are reasonably consistent with Blau and Duncan's findings for a national sample (8:ch. 12). This correspondence suggests that such influences among the nonmetropolitan Washington families studied are similar to those found in other parts of the United States. One of our findings is the occupational change between generations that shifts young men from Washington farm families toward professional and other occupations.

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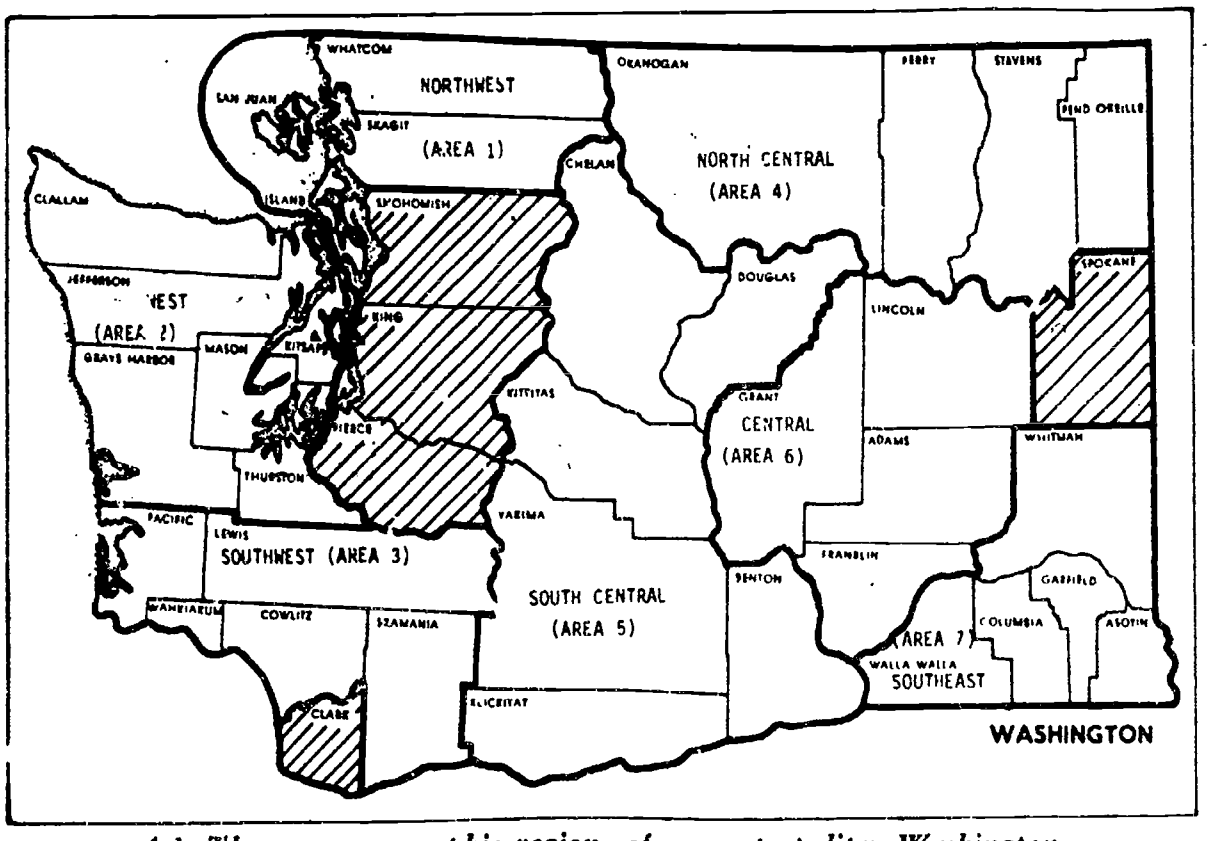
Appendix

The sampling goal for the mail survey was to obtain at least 1,000 responses from young adult men and women who attended nonmetropolitan high schools in Washington in the mid-1960s. The intent was to sample all nonmetropolitan areas of the state as defined by the 1960 *Census of Population*. It was expected that the sample proportions would be approximately half men and half women.

Nonmetropolitan Washington in the 1960s included all areas of the state except King, Snohomish, Pierce, Clark, and Spokane Counties. The nonmetropolitan counties were grouped into seven geographic areas shown in table A-1 by combining and slightly modifying the 13 planning districts defined in 1969 by the Executive Order of the Governor (State of Washington *1970 Census Data Book*, pp. 55-56). The seven areas were delineated so as to be similar in terms of their agricultural or other rural based industries, population density and other aspects of the nonmetropolitan environment (see figure A-1).

The nearly 200 high schools in these nonmetropolitan areas, along with their enrollment and average class size, were identified, using data from the Office of the Superintendent of Public Instruction. The list of high schools was screened as to geographic location and class size. In order to get accurate address lists without placing an extreme reporting burden on school personnel or alumni secretaries, the largest schools were eliminated. Generally speaking, these were high schools in small cities with 10,000 or more population. The smallest schools, those with average class sizes of 10 or less, were also eliminated in the interest of efficiency. Subject to the constraint that all 7 geographic areas be represented, 48 schools were selected at random from the remaining list of nonmetropolitan high schools. We expected that enough addresses



A-1. The seven geographic regions of nonmetropolitan Washington.

would be received from these schools to meet the sampling goals. Class sizes for the 48 schools ranged from 11 to 341, with a mean of 96.

The selected schools were contacted in 1972 and asked to supply address lists of students who had graduated in 1965 and 1966. Twenty-two responded, supplying over 3,000 names and adresses. Too few names were received from some areas to assure proportional representation of the nonmetropolitan population in that geographic area even after personal visits to some schools (reference table A-1, available on request). Sampling lists for those geographic areas where too many names and addresses were received were compiled by random selection. After these procedures, the complete sampling list for the mail survey contained 2,335 names and addresses.

All of the seven defined geographic areas were represented in the sampling process (table A-1). Relative to proportions of Washington's nonmetropolitan population aged 15-19 years in 1970, the Northwest, North Central, and Central areas are overrepresented in the sample design. The remaining four areas are underrepresented. The amount of variation by geographic area is generally one-third or less of the desired proportions for all but the Southwest, Central, and Southeast areas. This is true for both the proportions of questionnaires mailed and those of usable questionnaires returned.

Several reasons exist for the variation in geographic representation. In the Southwest and South Central areas, too few names and addresses were received. The mail survey response rate from the Southwest was also somewhat lower. The underrepresentation in the South Central area is offset, however, by heavier sampling in the Central area,

Table A-1 Geographic Distribution of Sample and Response Rates, 1973 Mail Survey of Washington Young Adults from Nonmetropolitan High Schools

State Area and School District	Percent of State's Nonmetropolitan Population Aged 15-19 Years in 1970[a]	Mail Survey Questionnaires: Number Mailed	No. of Improper Addresses, Deceased, ...	No. of Persons Contacted	No. of Usable Questionnaires Returned	Response Rate[b] %
Northwest, Area 1:						
Ferndale		[illegible]	54	166	95	
Mount Vernon		[illegible]	23	239	130	
Subtotal		452	77	375	225	
Percent of Total	[illegible]	19.4	13.[illegible]	21.4	21.2	60.0
West, Area 2						
Shelton		[illegible]	37	220	146	
Clallam Bay		34	9	25	16	
North Beach		11	[illegible]	11	7	
Subtotal		302	46	256	169	
Percent of Total	[illegible]	12.9	7.[illegible]	14.6	16.0	66.0
Southwest, Area 3						
Castle Rock		174	43	125	60	
Subtotal		174	47	125	60	
Percent of Total	[illegible]	7.5	8.4	7.[illegible]	5.7	48.0
North Central, Area 4						
Republic		51	8	43	26	
Mary Walker		[illegible]	4	17	14	
Columbia		[illegible]	[illegible]	20	11	
Chewela		34	[illegible]	32	20	
Cusik		[illegible]	[illegible]	36	28	
Coulee Dam		[illegible]	13	59	35	
Subtotal		[illegible]	[illegible]	207	134	
Percent of Total	[illegible]	[illegible]	[illegible]	[illegible]	12.7	64.7
South Central, Area [illegible]						
Wapato		[illegible]	33	118	58	
Mabton		38	[illegible]	35	20	
Prosser		135	11	124	80	
Subtotal		325	48	277	158	
Percent of Total	[illegible]	13.9	[illegible]	15.8	14.9	57.0
Central, Area [illegible]						
Moses Lake		[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Royal City		[illegible]	[illegible]	[illegible]	[illegible]	
Ritzville		[illegible]	[illegible]	[illegible]	33	
Warden		[illegible]	[illegible]	[illegible]	[illegible]	
Subtotal		[illegible]	[illegible]	434	[illegible]	
Percent of Total	8.1	[illegible]	[illegible]	24.7	24.4	59.5
Southeast, Area [illegible]						
Colfax		[illegible]	[illegible]	[illegible]	48	
[illegible]		[illegible]	[illegible]	11	7	
Subtotal		124	44	[illegible]	[illegible]	
Percent of Total	[illegible]	[illegible]	7.6	4.[illegible]	[illegible]	68.8
TOTALS		[illegible]	[illegible]	[illegible]	[illegible]	60.5

[a]Source: 1970 Census of Population, Washington

[b]No. of Persons Contacted ÷ No. of Usable Responses Received

which has a similar agricultural production and industrial base. In the Southeast also, too few addresses were obtained, but the proportion of the state's young adult population is biased upward by the presence of a major university in this area (reference table A-1).

The mail survey was begun in the fall of 1972 and completed in 1973. After the initial mailing and a postcard reminder, two additional follow-up letters accompanied by blank questionnaires were sent to nonrespondents. The second follow-up letter was sent by registered mail. From the initial mailing, 581 questionnaires, about 35% of the total, were returned because of incorrect and no forwarding addresses, improper identification, or death of the addressee. The proportion of persons not contacted varied by region and was extremely high in the Central area, probably because that region has more migrant agricultural workers (table A-1). The 1,754 persons contacted by mail returned 1,059 usable questionnaires for a response rate of 60.5%. This rate varied by area, ranging from 48.0% in the Southwest to 68.8% in the Southeast.

A number of cautions must be observed in drawing inferences from the data and applying the results to other populations. One is that the method used to obtain names and addresses did not permit collection of data from those not graduating from high school. (According to the *1970 Census of Population*, approximately 18% of Washington residents aged 25-29 years in 1970 completed less than 12 years of education.) Secondly, the population sampled were young adults from Washington who were entering careers in the late 1960s and early 1970s. Their experience could differ somewhat from that of young adults in a different location or time period.

Another caution is to recognize that the results are subject to the usual limitations of a mail survey. One of the more important of these is nonresponse bias. A test for nonresponse bias among four socio-economic characteristics was made using the survey data. Responses were classified into four groups according to the time between the initial mailing and receipt of the replies: 0-30 days, 31-60 days, 61-90 days, and more than 90 days. These time intervals were then cross-tabulated with the education, occupation, earnings, and location (size of place) of respondents. A Chi-square test was used to test for independence among the four characteristics and the time interval. The hypothesis of independence was accepted at the 10% level in all four instances. Results of this test indicate that nonresponse bias was not serious among those characteristics considered.

In a strictly technical sense, results from the analysis of the survey data can be generalized only to the population sampled. However, to use the results, they must be applied to alternate populations resembling the one sampled. This is the type of application that enables individuals making career decisions in the future to benefit from the results of this study. In this sense, results from the analysis can be used by readers other than those sampled and applied to a wider range of situations. The user should take care that the situations are similar to those covered by the survey data.