

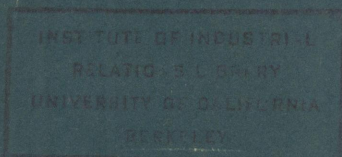
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The Older Worker in Industry

A STUDY OF THE ATTITUDES OF INDUSTRIAL
WORKERS TOWARD AGING
AND RETIREMENT

by G. Hamilton Crook and Martin Heinstein



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WORKERS TOWARD AGING
AND RETIREMENT

by

G. HAMILTON CROOK AND MARTIN HEINSTEIN

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ARTHUR M. ROSS, DIRECTOR

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FOREWORD

In 1950, the Institute of Industrial Relations received a sizable grant from the Rockefeller Foundation for a five-year interdisciplinary study of the problem of aging in an industrial society. The plans for the study were formulated under the leadership of former Director Clark Kerr, now President of the University, and his Associate Director, the late Lloyd H. Fisher. The separate studies which eventually emerged as independent subdivisions of the over-all project dealt with the economic status of the aged, the politics of the aged, the relationship of physiological and psychological age to chronological age, the social and psychological aspects of aging and retirement, employer and union policies toward the older worker, and retirement policy under social security legislation. The responsibility for guiding the project in its final stages has fallen chiefly to Dr. Margaret S. Gordon, now Associate Director of the Institute.

Central to the range of problems analyzed, from various points of view, in the Rockefeller study is the key question: At what age and under what conditions should society retire its aged members? Although this question has been extensively debated in recent years, very little is known about the attitudes of those most directly concerned, the workers themselves. Does the typical industrial worker look forward to retirement and does he welcome the idea of a fixed retirement age? Do workers' attitudes toward these problems change as they grow older? To what extent do workers plan for retirement, and is their planning realistic? Do workers think they should have a voice in decisions about retirement policy? Is it possible to develop objective criteria for

determining when a worker should be retired, based on measures of work performance and of physiological and psychological age?

It is to these questions that the present study is addressed. Although the authors recognize that some of their findings are highly tentative, their analysis of the attitudes of some 850 industrial workers in California does shed a great deal of light on the way in which workers view the process of aging and retirement. In addition, there is little doubt that some of the more tentative findings will stimulate further research.

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ARTHUR M. ROSS
Director

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CHAPTER I

INTRODUCTION

This study was undertaken in an effort to add to our understanding of the problems associated with the utilization of the older worker in industry. It is concerned particularly with the relationships between age, attitudes toward work and retirement, and the productive efficiency of industrial workers.

The importance of problems of the aging is now widely recognized. The growing concern of our society with the economic security, the social productivity, and the political activities of elderly persons has been reflected in an ever increasing gerontological literature. Yet many important questions remain unanswered. One has only to scan the publications on the problems of older persons to realize how much prejudgment and speculation and how little real knowledge underlie our current attitudes toward the proper role of older people in our society.

To what extent, for example, are compulsory retirement plans, age ceilings for hiring and promotion, downgrading older workers, and similar policies realistically based upon a known depreciation of workers' abilities with advancing age, and to what extent do they reflect stereotyped prejudicial attitudes toward older people? Do such practices remain in force largely because there is no clearcut choice among the alternatives, or because trying out other policies would involve administrative difficulties?

The matter of stereotyped attitudes deserves special notice.

How well do our own ideas about what older people are like fit into stereotyped patterns like those which follow?

- Older people are mentally as well as physically slow.
- They cannot learn new skills nor adapt to changing situations.
- They are accident prone.
- They cannot remember things well, except dull events from their own youth which they never tire of talking about.
- They think they know everything just because they are older.
- They are rigid and intolerant of others' ways of doing things.
- They are self-centered and demanding.
- They are irritable, crotchety, complaining.

The list could be amplified, but these examples will suffice.

If these traits characterize older people generally, then the appropriate roles for older people in industry and in society at large must be very limited. And there can be no doubt that some older persons show one or more—possibly all—of these characteristics. So do some younger persons. It may even be true that everyone who becomes sufficiently old will develop these traits. But such a statement is meaningless, for how old is “sufficiently” old?

The question is not whether the stereotypes fit some older people—they fit some people in every age group. The real question is immensely more complex than this. *How many* older people show these and similar characteristics *to what degree, at what ages*; and *what effects* does the possession of these characteristics in varying degrees have on their ability to work and perform other functions in society?

But human attitudes tend toward simple structure. Negative instances are forgotten; qualifications are lost; limited generalizations become transmuted into universals; and complexity dissolves into over-simplification. If one has the slightest incentive to do so, it is the easiest thing in the world to ascribe to all of the members of a group characteristics which are observed to apply to a few.

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Nor is this incentive lacking with respect to our attitudes toward older people. In our industrial society we learn when we are young that the better jobs, with more income, prestige, and security, are usually held by persons older than ourselves. As the years pass, often enough we come to feel that our advance is blocked by old duffers who are "holding on too long." How easy it is to rationalize such feelings! The stereotypes are already at hand; we have merely to make them our own by a bit of selective recall of the few antiquated and enfeebled octogenarians we have known. Then somehow the attitudes creep insidiously a few years down the age scale, and our justification is complete for believing that a man past 65 or even 60 is incapable of doing a good day's work.

It must be more than accidental that those qualities which are most often ascribed uncritically to the elder segment of the population are precisely antithetical to values which industry has bequeathed to our culture, with its emphasis on speed and quantity, initiative and high pressure, continual improvement and incessant change, newness and progress.

It may be useful to inquire not only about the possible importance of stereotypes in determining policies and attitudes toward older workers, but also to ask what happens to the people who hold these attitudes as they themselves become older. How often do these beliefs finally boomerang and (perhaps unconsciously) accelerate the process of dissolution because early dissolution is expected? Something of the sort is often observed clinically. And a person's performance tends to be limited not only by his capacities but also by his underestimations of his capacities.

Or, conversely, how do people's ideas about older workers change as they themselves become older? Do they tend to relinquish their stereotypes to avoid the necessity of applying them to themselves? Or do they perhaps resort to the neater expedient of progressively restricting these attitudes to "really" old people—people of ages greater than their own, no matter how old they themselves become?

How realistic are the attitudes of older persons toward themselves? Do they repress awareness of their diminishing abilities? Do they rationalize their position and arrogate imaginary ad-

vantages to aging to compensate for the failing capacities they cannot ignore? Or, finally, to what extent do the reactions of older persons represent unrealistic compensations for decreases in ability which are in themselves imaginary?

We do not know. But we do know one basic pertinent fact, at least. This is that there are large individual differences in capacity, in experience, in motivation, and in a wealth of other factors. Different individuals "age" at different rates. One man at 45 may look and act—and work—like the average man at 65, while another at 70 may be to all intents and purposes no different from the average man of 50. We do not know to what degree these differences in aging are attributable to physiological factors and to what degree they are psychological. But that they exist is indisputable.

What is the importance of this basic fact to industry? If individual differences in physiological and psychological aging are related to the productivity of workers, then compulsory retirement policies may lead to a very considerable loss of productive potential in our economy, unduly deprive a large number of people of adequate income, and unnecessarily increase that portion of the population that is dependent on the remainder.

On the other hand, there are practical difficulties in the way of administering a retirement policy which would take these individual differences into adequate consideration. In the first place, we are not able, at present at least, to measure "physiological age" or "psychological age," or, in many instances, an individual's productivity in his job. And if we could measure them, the utilization of such measures to determine the optimal retirement age for a given individual could well present many complexities and difficulties on a working level. If the individual differences in aging are relatively slight, or if they are not closely related to present and potential productivity, then a policy of fixed retirement might well be the best solution after all.

These problems are embedded in a complex of different interests. Their solution should take into consideration the best interests of the worker, of management, and of the community as a whole. The interests of the worker will include such things as whether or not he wants to continue working, what effect retirement will have on his income, what effect work on the one hand

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and retirement on the other may be expected to have upon his health and his life expectancy, what his activities and feelings are likely to be if he is retired, and in general what his psychological adjustment will be in work or in retirement.

The interests of management are not restricted to the quantitative output of the worker alone. A worker's productivity has both quantitative and qualitative aspects, direct and indirect references. It is to the company's interest to have employees who work well together as well as individually, who mutually facilitate and complement rather than inhibit and interfere with one another's efforts. We recognize also that the interests of enlightened management include more than productivity even in this expanded sense; in the long run they embrace the entire economy and the interests of the workers as well. But we are thinking at the moment of those interests which represent the more specific or peculiar concern of management, and it is these particular interests that are implied when we refer in the discussions below to a worker's "overall value to the company."

The interests of the community have to do with the problems of the aging in general—to what extent the economic and social potential of older individuals is realized, to what extent the political activities of the aged are merely self-seeking, to what extent the aged are an integral part of the community as a whole rather than an isolated group pursuing their own variant needs, and the like. Other things being equal, it is probably to the advantage of society for as many people to be usefully and gainfully employed as possible.

There is no guide to tell us how these several interests can best be reconciled. The best answer for one time or one condition of the labor market may not be the best for another. With increasing knowledge we may find, contrary to the implicit assumption of many persons today, that satisfying one interest does not inevitably entail frustrating another.

It is to problems such as those noted above that the present study has addressed itself. At the very inception of the planning it was rather naively hoped that the study might lead to the development of indices of "physiological age" which could be applied to individual workers in order to determine the optimal time

for retirement of each. As planning progressed, however, it became apparent that this fond hope was premature. In view of the wealth of conflicting speculations and the dearth of definitive knowledge in industrial gerontology, the present need is for exploratory studies which will help to map out areas and formulate problems more concretely for later and more crucial researches.

Thus the principal objective of the project became that of gaining information about older workers which might bear upon their optimal utilization in industry. To this end, some of the more specific aims of the study have been as follows:

- 1) To look for measurable psychological and attitudinal variables which are related to age and to the worker's overall value to the company.

- 2) To obtain information bearing on the credibility of certain hypotheses relating to psychological factors in aging and to the differences between older and younger workers.

- 3) To gain evidence on the applicability to older industrial workers of stereotyped attitudes toward older people which are common in industry and in the community at large.

- 4) To study the attitudes of workers toward retirement and the future in general, and to learn something about the adequacy of their preparations for retirement.

- 5) To carry out a preliminary investigation of the relationships between the attitudes of workers relating to age and such other variables as occupational level, individual work performance, retirement policy of the company, and a measure of physiological aging.

CHAPTER II

METHODOLOGICAL PROBLEMS

The study is based primarily on a sample survey of 846 industrial workers in the San Francisco and Los Angeles areas, conducted in 1952–1954. The workers were interviewed at the establishments where they were employed during working hours. In addition, a test which had been designed to measure physiological age was administered to the workers in the sample.

The immediate supervisor of each worker was asked to fill out a form providing information concerning the worker's performance on the job and a rating of his "overall value to the company." The supervisor was himself interviewed to permit evaluation of his attitudes in relation to those of the workers under him. He also made a rating of the age group into which he considered each worker to fall.

A number of additional items of information concerning the company and the workers in the sample were obtained from company personnel and company records. A small sample of retired workers formerly employed by the same or similar companies were also interviewed for comparison with the employed workers in attitudes toward work, age, and retirement.

The methods used in collecting the data are more fully described in the appendix. Not all of the information desired was obtained for every worker in the sample, and, because of limitations of time and resources, by no means all the data which were col-

lected have been fully analyzed. At best, we can present in this report only the broad outlines of the study findings and call attention to problem areas which deserve further investigation.

CHARACTERISTICS OF THE SAMPLE

Despite limitations which prevented probability sampling of a carefully defined population, the sample studied appears to be reasonably representative of California manual workers in a number of important respects. The sample design called for the inclusion of workers of all ages in skilled, semiskilled, and unskilled manual occupations, but, in view of the nature of the problems to be investigated, it was considered desirable to include a disproportionately large number of workers over 50 years of age.

The amount of time required for interviewing and testing during working hours represented a considerable expense for co-operating firms. Largely for this reason, it was difficult to obtain the cooperation of as broadly representative a group of industrial firms as might have been desired. Although many firms were contacted, only 27 finally agreed to participate. The majority of firms providing workers for the study were manufacturing establishments, except for a few companies in the trade and service industries and one government installation.¹

Age and Sex

For purposes of analysis, we have defined older workers as those 50 years of age and older and younger workers as under 50 years of age. The sample of workers as finally constituted included:

287 males, 50 years or older;
329 males, less than 50 years of age;
73 females, 50 years or older; and
157 females, less than 50 years of age.

Within these age and sex groups, the age distributions of the workers in the sample differed very little from those of the corresponding groups of California manual workers at the time of the 1950 Census, except in the case of younger men.² Men less than

¹ See Appendix, Table C-1.

² See Appendix, Table C-6.

METHODOLOGICAL PROBLEMS

50 years of age in the sample averaged about four years older than those in the general population of manual workers. The difference was attributable, chiefly, to the under-representation of men aged 20-29 and the over-representation of those aged 40-49 in the sample. Thus, in comparing younger and older men with respect to attitudes which might be age-related, this discrepancy would be expected to reduce group differences.

In interpreting comparisons made later between older and younger workers, it should be kept in mind that the average older man or woman in the sample was about 20 years older than the average younger man or woman. Or, to put it somewhat differently, the comparison is between a group averaging 35 to 40 years of age and a group averaging 55 to 60. It should also be noted that roughly one third of the workers in each older sex group were 60 or more, and hence were within five years of the conventional retirement age or had already passed it.

Occupational Level

The sample, as already indicated, was designed to include workers in skilled, semiskilled, and unskilled manual occupations. In its distribution by skill level, it resembled the population of employed manual workers in California remarkably well.³ For neither male group did the differences approach statistical significance. Differences were somewhat greater for the females, but even here they were not so striking as the similarities. It seems reasonably safe to conclude that occupational level as such was not an important factor of bias which would reduce the generalizability of the sample findings.

Education and Marital Status

As might have been expected, the industrial workers in our sample had completed fewer years of schooling, on the average, than the corresponding age and sex groups in California.⁴ In addition, both old and young men in the sample were more likely to be married than men in similar age groups in California. Among

³ See Appendix, Table C-2.

⁴ Since data on years of school completed and on marital status were not available for California manual workers by age and sex, comparisons are based on general population data.

the women, on the other hand, differences in marital status between the sample and the general population were not statistically significant, except for the relatively smaller proportion of younger women in the sample who were married. These differences in marital status probably reflect actual differences between the population of employed workers and the general population of California. It is known that married men have a higher labor force participation rate than single, widowed, or divorced men, whereas the reverse is true of married women.

Other Characteristics of the Sample

Roughly six out of ten workers in all age and sex groups reported that their fathers had been either skilled workers or farmers. The remainder of the fathers' occupations were distributed widely among the professional, managerial, clerical, sales, semi-skilled, unskilled and self-employed categories.

Most male workers reported that their wives were not working. The proportion was somewhat higher for older men. Only a small per cent of the women were asked about the employment status of their husbands, since this question was added after the interview program was well under way. Among those who were asked, the great majority indicated that their husbands were regularly employed and working full time.

As expected, the older workers had been working for their present employers longer, on the average, than the younger workers. The median number of years for each age and sex group was as follows: older men, 9.2 years; younger men, 5.8 years; older women, 12.5 years; and younger women, 4.3 years. These data, when compared with the results of nationwide surveys by the Census Bureau, suggest that workers in the sample were comparatively stable with respect to continuity of employment.⁶

⁶ See, for example, U. S. Bureau of the Census, "Experience of Workers at their Current Jobs," *Current Population Reports: Labor Force*, Series P-50, No. 36, December 5, 1951. The data are not precisely comparable. The Census Bureau collected data on how long workers had been employed at their current jobs rather than with their present employers. In most instances, however, the two questions would yield the same answer.

RETIREMENT POLICIES OF THE PARTICIPATING COMPANIES

Ten of the participating companies had formal retirement policies with pension provisions, while twelve had no such policies and no pensions. Data on retirement programs were not available for the other five firms. Of the ten with formal retirement policies, five had a compulsory retirement age and five did not. In three of the companies with compulsory retirement ages, the age was set at 65 for men and 60 for women. In one plant it was 65 for both men and women. The fifth establishment was the Naval Supply Center, where the regular United States Civil Service retirement policy was in effect. This provided for compulsory retirement at age 70 (with certain exceptions), but included employee's options for earlier retirement.

In all of the companies with pension plans and an optional retirement age, the pension plan provided that maximum benefits were to be received by a worker who retired at 65, and in most of them earlier retirement was accompanied by reduced benefits.

Several of the companies made some attempt to prepare their employees for retirement, but none was carrying out a very intensive program along this line at the time its workers were interviewed. The preparation offered ranged all the way from informal talks between the personnel officer and employees who were on the verge of retirement, to formal counseling programs beginning (in one instance) as long as five years or more in advance of retirement age. It is evident from the printed descriptive material prepared for distribution to the workers that a number of the companies had made some effort to familiarize their employees with their retirement and pension policies.

It is interesting to note that the retirement system was initiated by the company in six instances and accomplished by negotiation with the union in three. (The Naval Supply Center, with Civil Service Retirement, is not included in this count.) None of the three negotiated plans, however, included a compulsory retirement age. Several of the companies without retirement plans reported that the subject had come up for discussion in collective bargaining negotiations at one time or another but had been

dropped, at least temporarily. In one instance a formal retirement policy with optional retirement age was instituted by negotiation after our data had been collected.

UNIONS IN THE PLANTS

Only three companies (other than the Naval Supply Center) reported that there were no unions in their plants for the kinds of workers interviewed. Data were not available for six firms. The remaining seventeen companies provided the following information on unions in their plants:

1. Eleven companies described the unions as *strong*. In six plants, there were industrial unions, while in four there were trade unions, and in one the type was not specified.

2. Five companies rated their unions as *medium* in strength. These included three industrial unions and one trade union, while in the fifth company, both types were represented.

3. One company, in which there were several trade unions, described them as varying in strength.

CHAPTER III

ATTITUDES TOWARD JOBS AND WORKING

It has long been widely assumed that a worker's attitude toward his job influences his efficiency and productivity. Although a positive relationship between job satisfaction and productivity has not been demonstrated empirically,¹ it may still be true that job satisfaction affects the quality of a worker's output, and it is probable that the satisfied worker will be less likely to shift jobs. Yet relatively little is known about how workers' job attitudes change as they grow older. How do younger and older workers regard their work histories? Are there differences in expectations and in the extent to which workers feel their expectations have been met? What are the differences, if any, in the current satisfactions on the job of younger and older workers? And, are there varying attitudes toward the kinds of work each wants to undertake or feels he is able to undertake?

ATTITUDES TOWARD WORK HISTORIES

Upward job mobility has long been a part of the philosophy of the American worker. In our sample, the vast majority of men indicated that, at the outset of their work careers, they had antici-

¹ For an interesting discussion of the literature on this subject, see Arthur H. Brayfield and Walter H. Crockett, "Employee Attitudes and Employee Performance," *Psychological Bulletin*, 52 (September, 1955), 396-424.

ATTITUDES TOWARD JOBS AND WORKING

pated that their job status would improve (see Table 1). The proportion of women with a similarly optimistic outlook at the beginning of their work careers was, however, considerably smaller,

TABLE 1
ATTITUDES OF THE WORKERS TOWARD THEIR WORK HISTORIES

Attitude	Younger men	Older men	Younger women	Older women	Men	Women
Expectation at time of first job						
Expected job status to improve.	93%	91%	60%	48%	93%	57%
Expected job status to remain at same level or become worse	7	9	40	52	7	43
Total.....	100%	100%	100%	100%	100%	100%
Number of responses*.....	269	219	114	52	488	168
Job experience within last five years						
Improved.....	70%	59%	67%	51%	67%	64%
Remained same or became worse	30	41	33	49	33	36
Total.....	100%	100%	100%	100%	100%	100%
Number of Responses.....	280	226	141	61	506	202
General satisfaction with work history						
Well satisfied.....	64%	73%	77%	94%	68%	82%
Neutral; satisfied in some jobs, not in others.....	15	11	12	5	13	10
Dissatisfied.....	21	16	11	2	19	8
Total.....	100%	100%	100%	100%	100%	100%
Number of responses.....	266	232	140	64	498	204

* In this and the following tables, certain types of responses are excluded. Exclusions include the following: (1) indefinite and indeterminate responses; (2) cases in which the question was not asked (chiefly in contingent questions); (3) in a few codes, categories which overlapped the point of dichotomization; and (4) cases for which the question was inappropriate (as for example, in job experience, workers who had been employed less than five years).

representing fewer than six out of ten of the women in the sample. This difference is not surprising in view of the fact that opportunities for upward job mobility tend to be somewhat more restricted for women and that most women, at the time of entering the labor market, do not expect to continue working indefinitely.

ATTITUDES TOWARD JOBS AND WORKING

Neither for men nor for women were there significant differences between older and younger workers in expectations at the time of taking the first job.²

There were, however, significant age differences in the workers' attitudes toward their experiences within the preceding five years. Roughly two-thirds of both the younger men and the younger women indicated their jobs had been getting better within the last five years. The percentage was significantly lower for the older groups. Even so, it is noteworthy that 50 to 60 per cent of the older workers did indicate that their jobs had been getting better.³ This is perhaps somewhat unexpected, in view of the fact that these workers were, on the average, within seven or eight years of the usual retirement age. It is true that in some instances workers reported improvement in their jobs when apparently no job change or reclassification had actually occurred. The improvements had taken the form of pay increases, better working conditions, and the like. However, this was true for fewer than one out of six reporting a change for the better and does not represent a major qualification.⁴

What of the 40 to 50 per cent of older workers who reported no improvement in their jobs? Were they downgraded? Did they view their occupational status as worsening in the last five years? Fewer than five per cent of the older workers reported that their jobs had worsened. A similarly small minority of younger workers reported that their jobs had become worse in the last five years. The great majority of workers in both age groups who had experienced no improvement indicated that their status had remained unchanged.

² Although the difference may appear to be significant in the case of women, the results of a chi-square test indicated that the difference could not be regarded as statistically significant. In general, since the number of women in the sample was considerably smaller than the number of men, a given numerical difference between two percentages is less likely to be statistically significant for the women than for the men. For further discussion of the use of the chi-square test in the study, see Appendix C.

³ This finding may appear to be inconsistent with the data reported in Appendix C, which suggest that most upward occupational mobility occurs prior to age 50. It should be noted, however, that the appendix data relate to movement between major occupational classifications, whereas here we are concerned with improvement in the job.

⁴ This statement, as well as a number of subsequent statements dealing with details not reported in the tables, is based on unpublished data.

It should be recognized that this was a group of employed industrial workers who, on the average, had held stable jobs for a considerable period. Had we been studying a random sample of the entire labor force, including workers who had experienced considerably unemployment or were engaged in casual occupations, we might have found a larger proportion, particularly among the older workers, reporting that their jobs had worsened in the recent past.

Workers were also questioned in regard to the degree of satisfaction with their overall work histories. There was a noticeable tendency for relatively more older workers of both sexes to express satisfaction with their work histories. Probably this reflects in part the fact that a larger proportion of older workers had attained the skill status to which they had aspired at an earlier time. It may also reflect a tendency for workers to develop more realistic aspirations as they grow older, or in some cases a recognition of the limited time remaining in which to achieve satisfaction and a denial of feelings of failure. Noteworthy, however, is the fact that one out of every four older men failed to express any positive satisfaction with his work history and one out of every six admitted that he was actively dissatisfied.

It is interesting to compare these results with those of other studies which report somewhat similar findings. In discussing the results of a household survey in Norristown, Pennsylvania, Palmer reported that the proportion of workers who emphasize economic security as a measure of work success rises sharply at age 35, while the proportion who emphasize achievement in work declines.⁵ Similarly, Gardiner and Moore point out that older men are concerned with stability and security.⁶

Among the women, the proportion expressing satisfaction with their work histories was considerably higher than among the men. It is probable that differences in levels of aspiration account for a large part of this sex difference. Women appear to expect less, as was noted above.

⁵ See Gladys L. Palmer, "Attitudes Toward Work in an Industrial Community," *American Journal of Sociology*, LXIII (July, 1957), 21.

⁶ See Burleigh B. Gardiner and David G. Moore, *Human Relations in Industry* (Chicago: Irwin, 1950), p. 239.

ATTITUDES TOWARD PRESENT JOBS

Does the older worker demonstrate less positive feeling for his job than the younger worker? We were aware that answers to direct questions concerning the worker's liking for his job might be contaminated by a fear of revealing negative attitudes. We included, therefore, two series of questions aimed at assessing attitudes toward the current job. There were several direct questions such as "How do you like your present job?" and a series of questions designed to get at the same information indirectly.⁷ A rating code was constructed to record inferences about the worker's liking for his job from response content which was addressed, overtly, to another question.

In response to direct questioning, the vast majority of workers in all groups responded with positive feelings toward their jobs (see Table 2). Even among the relatively small number who manifested negative or indifferent attitudes, the majority was neutral rather than negative. The proportions were closely similar for all groups, and there were no significant age or sex differences.

An analysis of the ratings based on indirect content presents a very different picture. If we accept the ostensible implications of these ratings, we must conclude that approximately half of all the workers who responded to this question actually disliked their jobs, or at least had no positive liking for them. Again there were no significant differences between the groups, but there is a suggestion that older workers, especially older male workers, were more likely to be rated as liking their jobs than were younger workers. It is interesting to note that all differences between age and sex groups, in response to the direct and indirect sequences of questions, were in the same direction, although they are too small to be regarded as reliable.

The differences between the results of the direct and indirect methods of appraisal of job satisfaction would appear to indicate that workers were covering up their true feelings.⁸ However, indirect ratings were made on fewer than half the total number

⁷ See questions 13 through 13.21-0 in the interview schedule (Appendix D).

⁸ The fact that no relationship was found between these responses and either mode of enlistment of the interviewee or adequacy of the interview tends to weaken this interpretation somewhat, but cannot be said to refute it. For further

ATTITUDES TOWARD JOBS AND WORKING

of cases in each group. No ratings were made unless enough relevant material appeared in the response to yield fairly clear-cut inferences. Some limitations should be placed, therefore, on the interpretation of the results.

TABLE 2
ATTITUDES OF THE WORKERS TOWARD THEIR JOBS AND TOWARD WORKING

Attitude	Younger men	Older men	Younger women	Older women	Men	Women
Attitude toward job						
Likes.....	84%	88%	87%	89%	85%	87%
Dislikes or neutral.....	16	12	13	11	15	13
Total.....	100%	100%	100%	100%	100%	100%
Number of responses.....	327	284	155	73	611	228
Latent inference concerning attitude toward job						
Likes.....	41%	55%	45%	52%	45%	47%
Dislikes or neutral.....	59	45	55	48	55	53
Total.....	100%	100%	100%	100%	100%	100%
Number of responses.....	107	75	58	29	182	87
Attitude toward working (whether respondent would continue working or quit if assured the same income regardless)						
Continue working*.....	49%	45%	38%	42%	48%	39%
Quit*.....	51	55	62	58	52	61
Total.....	100%	100%	100%	100%	100%	100%
Number of responses.....	286	251	143	66	537	209

* Both categories require the qualification "at least temporarily." In addition, the *continue working* category includes a small number of respondents who said they would quit merely to look for a better job.

In an attempt to get some indication as to the extent to which these workers stayed on the job purely because of the need for income and the extent to which they derived noneconomic satisfactions from their work, they were asked whether they would

discussion of methods of enlistment of interviewees, see Appendix C. Regardless of method of enlistment, a worker who is interviewed at his place of work may tend to feel somewhat inhibited from expressing unfavorable attitudes toward his job.

ATTITUDES TOWARD JOBS AND WORKING

go on working even if they could be assured of the same income without working. In view of the major purposes of the study, this question was a particularly significant one, since it might be expected to shed some indirect light on attitudes toward retirement. About half of the men in both age groups indicated that they would continue to work, at least for a while, even if they could quit and continue to receive their working income. It is doubtful that the questions were entirely successful in eliminating financial considerations from responses, despite interviewers' efforts to clarify the intent. On the whole, however, it appears from the responses that a substantial proportion of the men valued work as such, or at least felt that they derived satisfaction which went beyond economic considerations. This interpretation is supported further by the fact that even among those who said that they would quit work, if they could continue to receive the same income without working, a number added that they would probably get bored and go back to work after a time.

The situation was somewhat different among the women. About six out of every ten women in the sample indicated that they would quit their jobs if assured of the same income after leaving the labor force. This proportion was significantly higher than among the men.

The absence of any significant difference between age groups, either among the men or among the women, in response to this question is interesting. Any expectation that the older workers would have been less likely to want to continue on the job if assured of the same income after quitting was not borne out by the results.

ATTITUDES TOWARD DIFFERENT KINDS OF WORK

When the workers were questioned with respect to their attitudes toward change and variety in their work, the responses revealed clearcut differences between age and sex groups (see Table 3). The most striking conclusion to be drawn is that the men appeared to like more variety and challenge in their work than did the women; conversely, relatively more women expressed a preference for routine work activity. In addition, relatively more older workers than younger ones, both male and female, liked

ATTITUDES TOWARD JOBS AND WORKING

TABLE 3
ATTITUDES OF THE WORKERS TOWARD VARIOUS TYPES OF WORK

Attitude	Younger men	Older men	Younger women	Older women	Men	Women
Likes new learning only	4%	..	..	..	3%	..
Likes new learning and other types	65	63%	43%	26%	65	39%
Prefers other types or likes none of the types*	31	37	57	74	32	61
Total	100%	100%	100%	100%	100%	100%
Number of responses	182	139	89	35	321	124
Likes familiar change only	20%	19%	26%	23%	20%	25%
Likes familiar change and other types	67	68	52	34	67	48
Prefers other types or likes none of the types*	13	14	22	43	13	27
Total	100%	101%	100%	100%	100%	100%
Number of responses	182	139	89	35	321	124
Likes routine only	6%	10%	19%	40%	7%	24%
Likes routine and other types	8	24	25	23	12	25
Prefers other types or likes none of the types*	86	66	56	37	81	51
Total	100%	100%	100%	100%	100%	100%
Number of responses	182	139	89	35	321	124
Likes one type only	31%	29%	45%	63%	31%	48%
Likes more than one type	69	71	55	37	69	52
Total	100%	100%	100%	100%	100%	100%
Number of responses	182	139	89	35	321	124

* A very small percentage stated that they liked none of the three types of work.

ATTITUDES TOWARD JOBS AND WORKING

routine work or at least work which was partly routine. Thus, only one out of seven younger men expressed a liking for routine work as compared with one out of three older men. Fewer than one-half of the younger women expressed a similar liking, as compared with nearly two out of three older women. Conversely, only one out of four older women indicated a liking for work involving any new learning; more than four out of ten of the younger women liked such work; and nearly two out of three in both male groups liked this kind of work. Finally, we see that roughly half of the women said that they liked one type of work only, while more than two-thirds of the men liked more than one type of work.

SUMMARY

Our findings thus far have turned up little clearcut evidence that older workers view either their jobs or work histories with less satisfaction than younger workers. In fact, in some respects, the reverse appeared to be true. Relatively more older workers expressed general satisfaction with their work histories and there was a suggestion that, at least among the men, older workers were more likely to reveal a positive liking for their jobs in response to indirect questioning than were younger workers.^{*} On the other hand, there was some tendency for relatively fewer older workers to report improvement in their job status within the previous five years, although even here it is significant that more than half of the older workers reported improvement.

The findings did tend to confirm an expectation that older workers were more favorably disposed toward routine work, but it is significant that among the men a substantial majority, even of the older workers, preferred less routine types of work. Furthermore, the answers to closely related questions having to do with attitudes toward change and variety in types of work revealed no significant age differences among the men.

^{*} This finding is not inconsistent with the results of other studies bearing on the relationship between age and job satisfaction. In a recent study, it was found that the older the worker, the more likely he was to report satisfaction with his job. But it was also found that job satisfaction appeared to be inversely related to level of educational attainment and that education appeared to be more highly related to job satisfaction than age. The authors suggested that the key factor in

There was considerable evidence of sex differences in attitudes toward jobs, and it is interesting to observe that these differences tended to fall into a consistent pattern. Women were less inclined to expect their job status to improve at the beginning of their work careers, and perhaps partly because of these relatively lower aspirations, were more likely to express general satisfaction with their work histories than were the men. At the same time, women were somewhat more inclined to reply that they would quit their jobs if they could be assured of the same income without working.

There were also striking differences between the sexes in attitudes toward routine work. Approximately half of the women, as compared with a distinct minority of the men, expressed a liking for routine work. Furthermore, women were less inclined to like new learning or variety in their work. In addition, there was a somewhat greater tendency for age differences among the women, in responses to this group of questions, to be significant. Older women not only were more likely to prefer routine work than were younger women, but there was at least a suggestion that they were less receptive to change and variety in their work.

job satisfaction was what workers expected in their jobs. See Howard M. Vollmer and Jack A. Kenney, "Age, Education, and Job Satisfaction," *Personnel*,²² (July, 1955), 38-43.

CHAPTER IV

ATTITUDES TOWARD AGE AND AGING

The process of aging may be accompanied by important changes in an individual's perception of himself and in his interpersonal relations. There have been various, and often contradictory, descriptions of how an older person feels about the process of aging. It has been maintained that "at times old people have so little interest in the future and their capacity for worry is decreased to such a point that they become slightly euphoric."¹ On the other hand, a representative of an old-age counseling center reported that the crux of the patient's difficulties lay in a frustrated "need to be needed," and it seemed clear that "awareness of uselessness is the most significant trauma of old age."² These statements probably apply to an older age group than the older workers represented in our sample, but they suggest the need for more comprehensive factual data on attitudes toward aging. How do people who have become accustomed to thinking of those who are 65 and over as worn out and depreciated feel about themselves when they, in turn, approach the fateful age?

The problem is particularly important for the industrial worker. There is a growing awareness that an employee's work performance may be dependent not only on his actual capacities,

¹ See S. Arieti, "The Process of Expectation and Anticipation," *Journal of Nervous and Mental Disorders*, 106 (1947), 471-481.

² Cited in *Proceedings of the Governor's Conference on the Problems of the Aging*, Sacramento, California, October 15 and 16, 1951, p. 225.

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TABLE 4
ATTITUDES OF THE WORKERS TOWARD AGE AND AGING

Attitude	Younger men	Older men	Younger women	Older women	Men	Women
Descriptive self-rating of age						
Young; between young and middle-aged.....	60%	15%	73%	13%	48%	60%
Middle-aged.....	34	39	26	45	35	30
Past middle-age, but not old; old	6	46	1	42	16	10
Total.....	100%	100%	100%	100%	99%	100%
Number of responses.....	271	212	143	62	483	205
Attitude toward likelihood that younger or older workers would do better in respondent's kind of work						
Young or middle-aged; not old..	50%	18%	40%	28%	42%	37%
Old.....	36	67	34	57	44	39
Neither; it depends.....	14	15	26	14	14	23
Total.....	100%	100%	100%	99%	100%	99%
Number of responses.....	254	218	143	63	472	206
Attitude toward likelihood that respondent himself would be more or less useful if younger ^a						
More.....		55%		34%		
Same or less.....		45		66		
Total.....		100%		100%		
Number of responses.....		166		39		
Attitude toward likelihood that respondent's age affects the way his boss treats him ^a						
No.....		77%		85%		
Yes.....		23		15		
Total.....		100%		100%		
Number of responses.....		207		62		

* These questions were asked only of workers aged 50 or more.

but also upon attitudes reflecting what he feels he can and cannot do. We may inquire, then, in what specific ways aging affects a worker's evaluation of himself. Does he identify himself as older or younger than his chronological age would suggest? Does he believe that younger workers would be more effective doing his particular job? Does he feel he would be more or less useful to the company, if he were younger? Is he treated differently by his "boss" because he is getting older? And, how does the question of age affect his attitude toward fellow workers?

SELF-RATING OF AGE

Workers were asked to rate themselves on an age scale ranging from young to old. As expected, chronological age was related significantly to self-rating of age. A majority of the workers in both younger groups, male and female, rated themselves as *young* or *between young and middle-aged*, although nearly half of the men and over one-third of the women were 40 years or older (see Table 4). Approximately one out of seven in the older group also rated themselves in this age range, while the remainder was divided almost equally between *middle-aged* and *past middle age but not old*.

It is not surprising that a significant sex difference appeared, with relatively more women than men rating themselves in the younger age groups. To some extent, however, this difference reflected the actual difference in age composition between the younger male and female groups.

In interpreting these results, it must be recognized that the terms young, middle-aged, and old have no precise meanings. Even so, it would appear that there was some tendency for these workers to think of themselves as younger than their chronological ages would suggest. Particularly significant was the fact that one out of seven older workers saw themselves as *young* or *between young and middle-aged*. An analysis of the relation of self-age ratings to an evaluation of work performance will be reported in Chapter VII.

ATTITUDES TOWARD WORK EFFICIENCY

Two out of three older men believed that older workers were likely to do better in their kind of work, while relatively few thought that younger workers turned in a better performance. Conversely, half of the younger men thought that relatively young workers were more capable, while only about one out of three felt that older ones were better. A small proportion in both the younger and older groups did not think that age was important. One might be tempted to consider that the differences were attributable to the fact that, on the average, the more highly skilled jobs were held by older men. Actually, the differences in attitude between younger and older men were considerably more pronounced than the occupational differences and probably were attributable largely to psychological factors.

The older and younger women showed differences in the same direction which were also significant, but of smaller magnitude. In addition, relatively more younger than older women believed that age was not an important factor in the ability to perform their type of work. Perhaps the women had less ego-involvement in their jobs than did the men, and were better able to admit that someone else could have done their jobs as well as they.

When the age groups were combined, a significant difference between the two sexes was found on this question. The difference seemed to be almost entirely attributable to the fact that relatively more younger females did not consider age a major factor in success at their type of work.

AGING AND VALUE TO THE COMPANY

The older workers were asked whether they felt that they were more or less useful to the company than they would be if they were younger. We have reported in the preceding section that older workers were generally positive about the relation of their ages to ability to perform their jobs. Rather surprisingly, slightly more than half of the older men indicated that they believed that they would be more useful to the company if younger. One-third of the older women expressed the same attitude. The

ATTITUDES TOWARD AGE AND AGING

number of cases in the female groups was very small, so that the proportions cannot be considered very stable, but the sex differences obtained were significant.

It is difficult to reconcile the attitudes displayed here with those reported just previously, to the effect that a sizable majority of older men felt that older workers were better than younger at their types of work. One possible interpretation is that the older male worker expressed confidence in his ability to do his specific type of work, but at the same time tended to look upon his age as a deterrent to overall usefulness to the company. Perhaps, to some extent, the attitudes of these men had been influenced by the general reluctance of employers to hire older workers. Another possible explanation is that psychologically the older male worker had to maintain his belief that older workers were better in general even though he was aware of decreased abilities in himself. In any event, the present finding is the first encountered thus far in which older workers appeared to feel that their age might have reduced their usefulness.

Despite the fact that older workers felt that they would be more useful if younger, a large majority did not perceive their age as a factor which influenced the way their bosses treated them. It is of interest to note that among the few who did believe they received differential treatment because of their age, some reported that their bosses gave them greater responsibility and more important jobs. The implication was that because they were older and more experienced they were better qualified and more responsible workers. Others in this group, on the other hand, indicated that their bosses gave them less and lighter work because of their age.

ATTITUDES TOWARD WORKING WITH OLDER AND YOUNGER WORKERS

Attitudes toward working with younger or older co-workers were also explored. Workers were classified according to the age group with which they worked and their feelings about working with co-workers of such an age group. The majority in all groups, except among the younger women who said they were younger than most of their co-workers, indicated that age of co-workers

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was a matter of practical indifference to them (see Table 5). Among those who did express some preference in the matter, most workers in all groups showed positive rather than negative feelings for the age groups with which they were working.

TABLE 5
ATTITUDES OF THE WORKERS TOWARD WORKING WITH YOUNGER
OR OLDER CO-WORKERS

Sex and attitude	Younger workers		Older workers	
	Younger than most of co-workers	About same age or older than most of co-workers	Younger or about same age as most of co-workers	Older than most of co-workers
Men				
Likes.....	37%	29%	28%	41%
Neutral.....	57	63	69	56
Dislikes.....	6	8	3	3
Total.....	100%	100%	100%	100%
Number of responses.....	86	112	36	113
Women				
Likes.....	50%	37%		35%
Neutral.....	38	61		65
Dislikes.....	12	2		..
Total.....	100%	100%		100%
Number of responses.....	50	41	10*	34

* No percentages have been computed because of the small number of responses.

None of the group differences was statistically significant, but there was a tendency, consistent for all age-sex groups, for relatively more workers who said that most of their co-workers were older to indicate that they liked working with these workers. Conversely, relatively more of those who said they worked predominantly with younger people expressed negative or neutral feelings about the situation. In general, very few workers expressed active dislike for working with any age group.

SUMMARY

For the most part, our findings suggest that the older worker displays a reasonable degree of confidence toward the process of aging. The majority of older workers in our sample, all of whom were fifty or more, looked upon themselves as middle-aged or young. They felt that older workers were likely to do better in their type of work than younger workers and that age did not affect the way their bosses treated them. The one negative finding concerned the feeling on the part of many older male workers that age detracted from their general usefulness to the company. But on the whole, the older worker displayed attitudes toward performance and interpersonal relations in industry which, at the very least, ranged from neutral to positive.

CHAPTER V

ATTITUDES TOWARD RETIREMENT AND THE FUTURE

There are several crucial periods of change in the life span of the individual. The age of retirement is such a period. The view is widely held that many workers are reluctant to retire, particularly when obliged to do so under the provisions of compulsory retirement policies, but there have been relatively few surveys of the attitudes of workers themselves on this problem. Yet, with increasing longevity and the rapid growth in the numbers of older persons living well beyond the usual age of retirement, decisions about retirement policy become increasingly important for society.

What are the older workers' expectations for the future as he approaches 65? Does he have any retirement plans? Is he looking forward to retirement or does he want to continue working as long as possible? How realistic are his plans, if any, for post-retirement activities? Such questions must be answered, if we are to plan intelligently for the most effective utilization of the potentials of the older worker and if we are to provide a more understanding social atmosphere for the aged.

ATTITUDES TOWARD THE FUTURE

It is not surprising to find that younger workers in our sample tended to view the future more optimistically than did older workers. Only about a fourth of the older men expected their

personal fortunes to improve in the future, whereas slightly more than half of the younger workers expected improvement (see Table 6). The female groups yielded roughly similar results. The age differences were significant, but no appreciable sex difference emerged.

It should be pointed out, however, that not more than a fifth of the workers in any age group who did not expect improvement actually thought their personal situations would get worse. The greater number anticipated no change. Principal reasons advanced for expectations about the future were couched in terms of general economic conditions, opportunity or lack of opportunity for advancement, improvement of personal skills, and general feelings of optimism or pessimism.

In order to study in greater detail the worker's expectations for the future, he was questioned as to how he looked upon his ability to get another job. In addition, he was asked about what he expected to do when he left his present job, how long he anticipated working, and his reasons for expecting to quit working at a particular age.

The results are of considerable interest. A substantial majority of the younger men believed that they could easily get another job as good or better than their current job, whereas a large majority of older men felt they could not. A majority in both female groups indicated that they could not easily get another job as good, at least at that time. However, the proportion who believed that they could was five times as great in the younger group. These differences were all highly significant and, on the whole, the attitudes expressed appeared reasonably realistic. Perhaps the most suspect datum was the belief of 35 per cent of the men past 50 years of age that they could easily get other jobs as good as those they held, although, as we shall see at a later point, it was chiefly the skilled workers who held this view.

Workers' attitudes toward their prospects of getting another job would undoubtedly vary with the state of the labor market, but the age differences appeared to reflect the prevailing policies and attitudes toward hiring older people and hence could be expected to continue as long as these policies and attitudes remained widely prevalent.

ATTITUDES TOWARD RETIREMENT AND THE FUTURE

What did the workers in our sample expect to do when they left their current jobs? Perhaps the most interesting aspect of the replies to this question was that only about four out of ten of the older men expected to retire (see Table 7). About a third thought they would go into business for themselves, approximately a fourth expected to get another job, and a small minority expected to remain in their present jobs until death.

TABLE 6
ATTITUDES OF THE WORKERS TOWARD THE FUTURE

Attitude	Younger men	Older men	Younger women	Older women	Men	Women
General expectation for personal future						
Expect things to get better.....	58%	28%	51%	33%	51%	47%
Expect things to remain about the same or get worse.....	42	72	49	67	49	53
Total.....	100%	100%	100%	100%	100%	100%
Number of responses.....	232	191	109	48	423	157
Attitude toward ability to get another job						
Could get another as good or better.....	61%	35%	47%	9%	54%	38%
Could not get another as good, at least now.....	39	65	53	91	46	62
Total.....	100%	100%	100%	100%	100%	100%
Number of responses.....	225	177	100	46	402	146

Among the younger men, it is scarcely surprising to find that a considerably smaller proportion expected to retire, while a much larger proportion expected to get another job, than was the case with the older men. But the proportion who expected to go into business for themselves was, interestingly enough, about the same as in the case of the older men.

The women's responses to this question were very different from the men's. There was no evidence of an important difference between younger and older women. The outstanding datum here

ATTITUDES TOWARD RETIREMENT AND THE FUTURE

was that approximately four out of five of the women in both age groups apparently expected to remain in their present jobs until they retired. This is entirely understandable for older women, but the question arises in connection with the younger group whether they considered their opportunities for advancement so restricted

TABLE 7
EXPECTATIONS OF THE WORKERS AS TO ACTIVITIES AFTER LEAVING PRESENT JOB

Expectations	Younger men	Older men	Younger women	Older women	Men	Women
What the worker expects to do after leaving his present job						
Remain in it until he dies.....	1%	5%	1%	1%	2%	1%
Retire.....	23	42	78	82	28	79
Go into business for himself...	34	35	8	8	34	8
Get a promotion or a better job.	10	2	3	..	8	2
Get another job (not necessarily better).....	32	17	11	9	28	11
Total.....	100%	101%	101%	100%	100%	101%
Number of responses.....	273	240	138	65	513	203

that they felt bound to one job for life, or whether a large proportion of these women did not expect to continue working for very long. As we shall see, the remaining data summarized in Table 8 yield some information on this point.

When asked at what age they expected to quit working, nine out of ten of the younger men, and about seven out of ten of the older, said they expected to quit working before the age of 70. This would seem to be a reasonably realistic expectation for both groups. Four out of five of the younger women (but only one in five of the older) said they expected to quit working before age 60. Actually the median for the younger group was below 50, whereas it was between 60 and 70 for all other groups. This finding suggests an answer to the question raised above: apparently one important reason why so many younger women expected to stay in their present jobs until they quit working permanently was that a large number expected to continue working for only a relatively short time. Nevertheless, it may also be true that the small number

ATTITUDES TOWARD RETIREMENT AND THE FUTURE

TABLE 8
ATTITUDES OF THE WORKERS TOWARD ULTIMATELY QUITTING WORK

Attitude	Younger men	Older men	Younger women	Older women	Men	Women
Age at which workers expect to quit working						
Under 70.....	89%	71%	95%	94%	84%	95%
70 or older.....	11	29	5	6	16	5
Total.....	100%	100%	100%	100%	100%	100%
Number of responses.....	294	252	123	62	546	185
Under 60.....			80%	18%		
60 or older.....			20	82		
Total.....			100%	100%		
Number of responses.....			123	62		
Reason for which worker expects to quit working ultimately						
Will work as long as physically able.....	31%	43%	19%	39%	34%	23%
Will want to retire, be able to retire.....	42	25	48	43	38	47
Will have to retire, will be retired.....	18	29	11	10	21	11
Will quit to go into business for self.....	8	3	2	..	7	2
Will quit to get married, take care of family.....	..	..	20	8	..	17
Total.....	99%	100%	100%	100%	100%	100%
Number of responses.....	271	228	130	49	499	179

who expected to continue working indefinitely were not likely, on the whole, to improve their job status very much.

Much more interesting were the replies relating to the reasons for which these workers expected to quit work ultimately. The older men appeared to be less receptive to the idea of retirement than were the younger men (see Table 8). Forty-three per cent

of the men 50 years of age or older said that they expected to continue working as long as they were physically capable of doing so. Fifty-four per cent expected to retire while they were still able to work, but for over half of these retirement would be compulsory. Indeed, only one out of four of the older men expressed any active interest in retiring and expected to do so voluntarily. Among the younger men, however, only 31 per cent expected to continue working as long as they were able, whereas 60 per cent expected to retire while still able to work. And more than two-thirds of this latter group apparently believed that they would want to retire and would do so voluntarily.

A question which arises immediately is whether these younger men are likely to feel the same way about retirement when they are twenty years older. Or is retirement something that seems very desirable as long as it is sufficiently distant, but progressively loses its attractiveness and appeal as it approaches closer and closer—somewhat like the dear sweet relative whom everyone in the family loves but no one wants living with him?

In any event, these obtained differences between the older and younger men are highly significant—both statistically and in terms of their implications as well. Nor does it detract from their significance to point out that an appreciably greater proportion of older than of young men in the sample worked in plants with formal retirement policies and pension systems (roughly 55 and 40 per cent respectively).

The female groups showed a pattern of responses similar in several respects to that of the men, but with one or two major differences. Relatively more of the older women than older men reported that they expected to retire voluntarily; the percentage was comparable to that of the younger group. On the other hand, there was an even larger difference in the female than in the male groups in the proportion who expected to continue working as long as they were able; in this respect the older women resembled the older men. The distribution of responses for the younger women suggests that they were least willing to work as long as possible; it corroborates the impression gained above that some of them viewed their employment as a temporary—if somewhat prolonged—expedient.

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TABLE 9
RETIREMENT PLANS OF THE WORKERS

Plans	Younger men	Older men	Younger women	Older women	Men	Women
Whether or not the workers report definite retirement plans						
Yes.....	23%	24%	18%	23%	23%	19%
Yes, qualified or contingent ^a	19	13	21	21	17	21
No ^b	59	63	61	56	60	60
Total.....	101%	100%	100%	100%	100%	100%
Number of responses.....	317	269	154	72	586	226
Types of plans						
Retirement activities ^c	17%	22%	12%	12%	18%	12%
Travel.....	26	16	20	15	23	19
Managing own ranch or farm...	20	20	15	15	40	15
Running other self-owned business.....	15	18				
Working (employed by others) .	5	3				
Taking care of house and/or family; getting married.....	6	6	37	42	6	38
Minor and vague activities; "resting".....	12	13	17	15	12	16
Total.....	101%	98%	101%	99%	99%	100%
Number of responses.....	129	98	60	26	227	86
Expensiveness of plans						
Expensive.....	49%	35%	28%	23%	45%	27%
Questionable; uncertain.....	34	40	25	35	36	27
Little expense involved.....	17	25	47	42	19	45
Total.....	100%	100%	100%	100%	100%	100%
Number of responses.....	129	98	60	26	227	86

^a Usually expressed in terms of health or money: "If my health holds up," "If I can afford it," etc.

^b Includes (a) those who say they don't expect to retire, and (b) those who expect to retire but say they have no plans.

^c Includes several heterogeneous activities which are commonly thought of as proper for retired people: Working in the garden, engaging in hobbies, doing community service work, engaging in social activities, engaging in active and spectator sports, etc.

THE WORKER'S OWN RETIREMENT PLANS

There was little evidence to suggest that either older or younger workers had given much thought to the question of their retirement. A majority of the workers indicated that they either did not expect to retire at all, or that they did expect to retire but had made no plans concerning what they would do following retirement (see Table 9).

It is of interest that the older and younger groups showed approximately the same proportions of workers with no retirement plans. One might reasonably have expected people who were within a few years of retirement to have formulated more definite plans about it than people who were twenty years younger. And the fact that relatively more of the older men worked in plants with formal retirement policies, where many of them had been exposed to printed materials on retirement and where some had even received retirement counselling, might have been expected to make a difference, too.

When asked more specifically about the nature of their retirement plans, very few workers, old or young, indicated that they had given much thought or attention to the matter. In fact, the similarity of responses in the four groups makes one wonder whether those who did report definite plans might not have been answering in this way merely on the basis of verbal habits and stereotyped attitudes toward retirement—in short, more or less because they felt they were expected to answer positively rather than because they had actually given the matter much thought.

In any event, fewer than one fourth of the respondents in any group gave unequivocally positive answers to the question about retirement plans. Another 15 to 20 per cent (roughly) gave qualified or contingent affirmative responses. Many of these responses were probably little more than wishful thinking, while others appeared to be improvisations of the moment. Some of them doubtless represented prudent caution on the part of forethoughtful persons (such as, "If I can add enough savings to what I've already got, I intend to. . ."); while others implied in their phrasing a recognition that they were not very realistic ("If I thought I could, I'd like to. . .", and so on).

Among those who mentioned plans, examination of the kinds of anticipated activities described again disclosed a close similarity between the responses of the older and younger groups, despite the very small number of cases in the individual categories. The greatest discrepancy (which still falls short of significance) was between the older and younger men in the "travel" category. The difference was smaller for the female groups, but in the same direction.

The sex difference was highly significant, chiefly reflecting the greater number of men who said they planned to go into business of one sort or another (including farming), and the greater number of women who expected to quit working to get married or to keep house and take care of the family following retirement.

Again the question arises as to how realistic these plans were. Particularly suspect, because of the expense involved in starting or in carrying out the activity, were the categories of "travel," "managing own ranch or farm," and "running other self-owned business." These categories contained more than half of all the male responses.

In order to investigate this problem further, the retirement plans were regrouped roughly on the basis of the cost entailed in implementing them. Those which were rated "expensive" included, for example, such responses as, "Get a cattle ranch and raise cattle," "Do a lot of traveling," "Buy a motel and run it," "Start a grocery business," and (the traditional ambition of retiring policemen), "Get a chicken farm and settle down." The activities in the "little expense involved" category including "Getting another job," "Taking care of the family," "Just loafing," and some of the so-called "retirement activities" such as engaging in hobbies, working around the garden, and the like. So classified, about half of the younger men, a third of the older men, and a fourth of the women reported plans which fell into the "expensive" category. The plans of about a sixth of the younger men, a fourth of the older, and somewhat fewer than a half of the women fell into the "inexpensive" category. All the rest were in the intermediate "questionable" class.

Significantly fewer of the women and more of the men described plans which were rated as "expensive." The differences

between the age groups were not statistically significant, but there seemed to be a tendency for the younger workers to mention more expensive plans than did the older ones. This might be considered to suggest a slight tendency, at least, for the older workers to take a more practical view of the possibilities in the situation.

ANTICIPATED SOURCES OF RETIREMENT INCOME

Probably the most important factor in the planning of an aging worker for retirement is his expected income, both the source and the amount. The proportion of workers who reported that they expected to receive pensions on retirement ranged from 20 to 42 per cent in the various age and sex groups. These figures were compared with the proportions of workers in each group who worked in plants with pension plans.¹ There was close agreement between the two sets of percentages for the older male and younger female groups, but there were rather large differences for the other two groups. That for the younger women is easily explained, since a sizable proportion of these younger women did not expect to continue working to the age when they would be eligible for pensions. For the older male group, the difference probably reflected ineligibility for pensions in the case of some men who had been working only a relatively short time for their present companies. It was also attributable in part to the presence of a number of older men (in plants with optional retirement ages) who did not expect to retire at all but wanted to "die in harness." Actually, only for the older women was there probably a close causal relationship between the presence of a pension plan in the plant and the number of workers who expected to retire with a pension. An appreciable proportion of the younger men who said they expected a pension were employed in plants without a pension scheme, but they expected that their present companies would install such plans before they retired or that they would be working for other companies with pension programs.

A few instances were discovered in all groups in which the worker did not know whether his company had a pension plan

¹ See Appendix, Table C-8.

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TABLE 10
EXPECTATIONS OF THE WORKERS AS TO RETIREMENT INCOME

Expectations	Younger men	Older men	Younger women	Older women	Men	Women
Expects to receive pension, social security, and the like						
Pension.....	7%	12%	7%	12%	9%	8%
Pension and social security.....	27	27	19	16	27	18
Pension and other income.....	3	3	4	3	3	4
Total expecting pension.....	37%	42%	33%	20%	38%	30%
Social security.....	32%	36%	32%	47%	33%	35%
Social security and pension.....	[27]	[27]	[19]	[16]	[27]	[18]
Social security and other income	15	12	12	20	15	14
Total expecting social security	74% ^a	75%	63%	83%	75%	67%
Other income ^a	6%	4%	6%	6%	5%	6%
Miscellaneous ^b	10	6	17	6	8	15
Total.....	100%	100%	100%	100%	100%	100%
Number of responses.....	310	267	130	64	577	194
Expects to receive additional income (other than above)						
Yes (monetary income).....	12%	19%	5%	24%	14%	9%
Yes (non-monetary support or assistance).....	5	4	39	25	4	36
"Hopes" for additional income.	11	8	3	6	10	4
Uncertain, "don't know".....	5	2	4	3	15	4
No (no additional income expected).....	67	67	49	42	67	48
Total.....	100%	100%	100%	100%	100%	101%
Number of responses.....	290	253	150	67	543	217

^a State old age assistance, annuities, insurance, income from work, private business, etc. Since private sources of income were not asked for specifically, these responses are not inclusive.

^b Including a few who say they don't know, a few who say they are ineligible, a few who say they think of pensions and social securities as charities and prefer to support themselves, etc.

^c One of the quantities in this subtotal was already included in the subtotal above. Therefore the sum of the two subtotals may be greater than 100 per cent.

or not—and a great many more in which the worker had no clear-cut idea what the size of the pension might be.

The great majority of those who expected a pension also looked forward to receiving social security benefits (see Table 10). In all, about three-fourths of the men expected retirement benefits. This proportion was a little higher among the older women and a little lower among the younger ones.

The “other income” category in this distribution is far from exhaustive, since the question did not ask specifically about other income. More detailed information on additional income is included in the lower part of the table. The outstanding finding from these data is that two out of every three men said they expected no income during retirement in addition to that mentioned previously. Somewhat fewer than half the female workers replied similarly. The difference was undoubtedly explained by the larger proportion of women who expected to receive support from their spouses.

For each sex there were significant differences also between the age groups, but apparently only in part for the same reasons. Thus relatively more older than younger workers, both male and female, said they expected additional monetary income. Also, relatively more younger than older women expected to receive nonmonetary support. This latter relationship probably reflected the greater number of younger women who were or expected to be married (forgetting the likelihood of their becoming widowed), and did not show up among the men.

Additional monetary income refers to income from property, business, investments, or saving which were already wholly or partly owned. The category “*hopes*” for additional income includes primarily references to the same kinds of sources, but the process of acquiring them had not yet been initiated. In all probability, this category represents much less realistic expectations than the one mentioned just previously. The nonmonetary support or assistance category refers chiefly to support from family members, or to reduction of expenses gained through owning one’s home.

None of the variables on sources of income referred to above included income from employment following formal retirement. This source of income for retired workers may conceivably become

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TABLE 11
EXPECTATIONS OF THE WORKERS AS TO EMPLOYMENT AND AMOUNT
OF INCOME AFTER RETIREMENT

Expectations	Younger men	Older men	Younger women	Older women	Men	Women
Employment expectations following retirement						
Expects to work (unqualified) ..	10%	6%	3%	5%	9%	3%
Expects to work (part-time or light work)	12	18	7	3	14	6
Uncertain, contingent	16	11	14	20	15	16
Expects to operate own business or farm	22	22	5	6	22	5
Does not expect to work for pay or profit	40	43	71	66	40	70
Total	100%	100%	100%	100%	100%	100%
Number of responses	291	251	141	65	542	206
Percentage of present income expected after retirement						
100 per cent or more	23%	14%	22%	12%	21%	20%
75 to 99 per cent	8	10	5	6	8	6
50 to 74 per cent	47	54	49	59	49	51
Less than 50 per cent	15	16	15	15	15	15
Don't know	8	6	9	9	7	9
Total	101%	100%	100%	101%	100%	101%
Number of responses	251	207	110	34	458	144
Realism of expectation to maintain present income after retirement						
Expectation realistic*	28%	30%	29%		28%	32%
Expectation questionable	14	20	12		16	18
Expectation unrealistic	58	50	59		56	50
Total	100%	100%	100%		100%	100%
Number of responses	72	40	34	5 ^b	112	38

* Expectation is considered *realistic* if the worker owns or is now buying income property, farm or ranch, or has or is now making investment in private business, insurance, annuities, stocks, etc.; or has accumulated savings, or expects (self and/or spouse) to work full time, or part time plus pension; or combination of these.

Expectation is considered *unrealistic* if the worker expects a pension only or merely hopes to acquire property, business, investments, or savings, but has not started doing so; or says he does not know how he will maintain his present income.

^b No percentages have been computed because of the small number of responses.

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more important in the future as a result of progressive relaxations of the "retirement test" in the Social Security Act, the trend toward shorter hours, a greater recognition of the need to make part-time work available, and so on. But among these industrial workers who were interviewed in 1952 to 1954, relatively few had definite expectations of holding regular jobs after retirement (see Table 11). Roughly four out of every ten men, and seven out of ten women, said that they did not intend to do any kind of work for pay or profit following retirement. The next largest category, among the men, included those who said they expected to go into business for themselves. But it will be recalled that we commented earlier, in connection with another question, that many of these intentions seemed very vague and unsupported by the requisite financial resources.

Among the women, the second largest category was the *uncertain, contingent* group. This included "don't know" responses and responses such as "I'll work if I have to," "I'll work if my other plans don't come through," and so on.

Only a small percentage of workers in each group said without some qualification that they expected to work following retirement. The implication is that these workers expected to continue working full time, although they might have to find new employers, and most of them expected to continue in their regular line of work.

The *part-time or light work* category included responses ranging all the way from baby-sitting or doing odd jobs to part-time work in one's regular occupation, or, in one instance, getting a full time job as a white-collar worker.

It is interesting to note that age differences in the distributions of responses to this question were not significant, although sex differences were highly significant.

A cursory inspection of these data might impress one with the wealth of resources available to people who are planning for retirement. The worker has merely to save his money, make some judicious investments, and his future is financially assured so that in retirement he will be able to do exactly as he pleases. His private income, plus his pension and social security benefits will enable him to gratify his every wish!

On more careful analysis, however, the data seem to suggest a very different picture. Over half of the workers who were already more than 50 years old reported that they had no definite retirement plans. Among the men, not more than one in four had a reasonable and fairly certain expectation of appreciable income or support during retirement in addition to his pension (if any) and/or social security benefits, except for what he might be able to earn by continuing to work. (The proportion of women who expected other income was higher primarily because they expected to receive support from their husbands and relatives). It seemed likely that many of the workers who claimed to have definite retirement plans were not very realistic. It is true, nevertheless, that a certain but probably small percentage of the workers might be expected to come close to achieving a satisfactory retirement and that numerous others would get along very well.

ANTICIPATED SIZE OF RETIREMENT INCOME

Income data for retired people show clearly that their incomes tend to be very much lower than those of employed workers. Thus it is not surprising to find that the workers in our sample expected to receive substantially reduced income following retirement (see Table 11). About one out of every seven said he expected to receive less than half his present income, while roughly 50 per cent of the workers said they expected to receive from a half to three-fourths of their present incomes.

The relatively small groups of workers who expected to receive their present incomes after retirement were asked to explain how they would get as much to live on as they had currently. The replies were then rated according to whether they appeared realistic or not. The small size of the groups concerned renders the percentages quite unstable, particularly for the female groups, but the results are suggestive. Fewer than half the workers in any group explained satisfactorily how their plans might be made to materialize. Half or more of the workers in each group (except older women, where the numbers were much too small to be taken seriously) gave very unconvincing explanations.

In any event, it will be noted that fewer than ten per cent of the workers in any of the age and sex groups said they expected

to have as much income following retirement as at present and gave good evidence that this expectation was likely to be realized.

In general, the findings with respect to the workers' individual retirement plans and expectations suggest that their own prospective retirement is not something that it is easy for industrial workers to think about and plan for. The majority of workers in our sample, even those within a few years of retiring, professed to have no definite retirement plans. Among the minority who did, some of the plans seemed well thought out and well provided for while others did not.

SUMMARY

On the whole, the findings presented in this chapter are consistent with the hypothesis that the closer workers approach to retirement the less favorably disposed they feel toward it and the less they even want to think about it. In short, it may well be that in many older workers the whole idea is repressed.

Not only did older workers tend to have, for the most part, relatively negative attitudes toward the prospect of retirement, but relatively few of them appeared to have made realistic plans for retirement. In fact, the proportion of older workers who tended to be somewhat vague and indefinite about their retirement plans was about as high as for younger workers, despite the fact that retirement was a much more imminent prospect for the older workers. It may well be that, had we been studying a group of white collar workers, we might have found a greater prevalence of definite retirement plans. As one writer has suggested, it may be that *planning* for retirement tends to be a middle-class concept.²

At the same time, it must be recognized that retirement appears to be a very different concept for men and for women. Many of the women in our sample viewed their jobs as temporary expedients. Retirement often meant getting married to the younger ones, while to the older women it meant quitting work to take care of their families. Their relatively more positive attitudes toward

² See Milton L. Barron, "The Dynamics of Occupational Roles and Health in Old Age," in *Psychological Aspects of Aging*, Proceedings of a Conference on Planning Research, Bethesda, Maryland, April 24 to 27, 1955 (Washington, D.C.: American Psychological Association, 1956), p. 239.

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early retirement seemed to be rooted primarily in their concepts of the functions of a wife and mother. For men, jobs played a more central role. And yet, the older women, as well as the older men, were more likely than younger workers of the same sex to indicate a desire to work as long as they were physically able.

CHAPTER VI

ATTITUDES TOWARD RETIREMENT POLICIES

As life expectancy and, with it, the size of the aged population increases, and as the number of years elapsing between retirement and death rises, the problem of retirement policy becomes increasingly critical for society. Who should formulate retirement policies? Should they be rigid or flexible in relation to the age of retirement? If flexible, who should decide when a worker is to be retired and on the basis of what criteria? One of the objectives of our study was to shed more light on workers' attitudes toward these issues.

WHO SHOULD MAKE THE DECISIONS?

Somewhat surprisingly, a majority of our workers did not believe that they themselves should play a part in determining when they should retire (see Table 12). Of the four agencies named in our question as to who might participate in this decision (the company, the government, the person himself, his union), none earned a majority of votes in any of the age or sex groups, with the single exception that slightly more than half of the older women said the worker himself should take part. The worker was mentioned more often than any other category in every age and sex group, the company next most often. Government ranked next and the union

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TABLE 12

ATTITUDES OF THE WORKERS TOWARD RESPONSIBILITY FOR RETIREMENT DECISIONS

Attitude	Younger men	Older men	Younger women	Older women	Men	Women
Who should determine when a worker should retire						
Worker only	25% 14	30% 13	34% 14	32% 23	26% 14	34% 16
Worker with others						
Total mentioning worker	39% 61	43% 57	48% 52	55% 45	40% 60	50% 50
Worker not mentioned						
Total	100%	100%	100%	100%	100%	100%
Company only	14% 22	17% 21	21% 19	19% 24	15% 22	21% 20
Company with others						
Total mentioning company	36% 64	38% 62	40% 60	43% 57	37% 63	41% 59
Company not mentioned						
Total	100%	100%	100%	100%	100%	100%
Government only	23% 7	19% 11	12% 7	15% 6	22% 8	13% 7
Government with others						
Total mentioning government	30% 70	30% 70	19% 81	21% 79	30% 70	20% 80
Government not mentioned						
Total	100%	100%	100%	100%	100%	100%
Union only	10% 12	6% 12	8% 11	4% 8	9% 12	7% 10
Union with others						
Total mentioning union	22% 78	18% 82	19% 81	12% 88	21% 79	17% 83
Union not mentioned						
Total	100%	100%	100%	100%	100%	100%
Number of responses	207	164	107	53	371	160

last in the replies of men and older women; but they were mentioned with almost equal frequency by the younger women.

Group differences on the whole were small and insignificant. There was no evidence of any relationship with age, but there was some tendency for relatively more men than women to mention

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the government, and for women to mention the individual worker more often.

Almost three-quarters of the workers in each group indicated they believed that retirement age should be determined by only one of the four agencies, while 25 to 30 per cent favored some combination of two or more. Among the responses proposing a joint responsibility for the decision, the company was mentioned for inclusion more often than any one of the others.

Two findings of importance seem to be disclosed: (1) the great diversity of opinion, in all four groups, with respect to who should be responsible for determining a worker's retirement age; and (2) the readiness of the majority of workers to relinquish any right to participate in the decision themselves.

RETIREMENT AGE

When asked at what age they thought workers should be retired, the younger workers tended to select earlier ages for compulsory retirement than did the older ones (see Table 13). The median age suggested by both of the younger groups was about 60; for both older groups it was about 65. This difference (highly significant for both men and women) reinforces the impression gained above that the prospect of retirement grows less attractive the more imminent it becomes. Contributing also to the significance of this difference in general attitude was the relatively greater frequency with which the older workers in both groups failed or refused to mention age at all.

The sex difference also appears to be highly significant. Relatively more women said the retirement age should be below 55, relatively more men said it should be 55 or above. At the same time, fewer women were willing to commit themselves by mentioning a definite age.

The non-numerical aspects of the responses are also of interest. A proportion ranging from approximately a fifth to a half of the workers in the various groups accepted the idea of a fixed retirement age without objection or qualification. Thirteen to twenty-seven per cent went along with the question and specified a particular age, but qualified their responses with one or more contingencies. A small percentage—fewer than one-eighth of the

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workers in any group—refused to accept the question as put and asserted that there should be no fixed retirement age. A larger number of respondents gave indefinite or equivocal responses; for the most part these workers seemed dubious about the desira-

TABLE 13
ATTITUDES OF THE WORKERS TOWARD A FIXED RETIREMENT AGE

Attitude	Younger men	Older men	Younger women	Older women	Men	Women
Age at which workers should be retired						
Under 50 years.....	1%	..	3%	..	1%	2%
50 to 54 years.....	5	2%	14	..	5	11
55 to 59 years.....	18	5	9	8%	15	9
60 to 64 years.....	23	17	17	16	21	17
65 to 69 years.....	17	26	18	8	19	18
70 or older.....	2	9	..	6	4	1
No age suggested.....	34	41	39	52	36	42
Total.....	100%	100%	100%	100%	101%	100%
Number of responses.....	310	262	155	71	572	226
Non-numerical aspects of the response						
Age given, but contingency mentioned.....	16%	13%	27%	22%	15%	26%
Indefinite, "don't know," equivocal.....	27	33	29	48	29	33
Should not be retired at fixed age	8	12	5	7	9	5
Idea of fixed age accepted without qualifications.....	49	42	39	22	47	35
Total.....	100%	100%	100%	99%	100%	99%
Number of responses.....	310	262	155	77	572	226

bility of any fixed retirement age rather than merely uncertain what the age should be. Contingent answers included factors such as (1) ability to do the job satisfactorily to the employer, (2) the worker's health or physical condition ("... if his health is good until then"), (3) the worker's sex ("women ought to be retired at about ..."), and (4) most frequently of all, the worker's financial condition ("... if he can afford to retire then"). A few workers

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qualified their responses by saying that the worker should have an option of retiring earlier than the fixed age. These qualifications, with one exception, were more or less in line with current policies in the plants (where such policies existed). This exception was the suggestion that "compulsory" retirement should be made dependent upon the worker's financial status. If this procedure were in force, presumably a worker could avoid his "compulsory" retirement and continue working if he so desired, merely by making sure that he did not save too much money!

The difference between the older and younger women in the distribution of responses was significant. Relatively more older women took exception to or were uncertain about the idea of a fixed retirement age, while relatively more younger ones appeared to accept it, although many did so with qualifications. The differences between the older and younger men were in the same direction. Comparatively more men than women, however, showed a willingness to respond in terms of a fixed retirement age without qualification.

The fact that the older groups seemed less willing than the younger to accept the idea of a compulsory retirement age is in line with our previous inferences with respect to the feelings of many older workers about retirement in general. The additional fact that the retirement ages selected as optimal by older workers tended to be later than those selected by younger workers is also consistent with those results. But if large numbers of workers feel so negatively toward the prospect of retirement, and are so threatened by it, why are so many impelled to suggest fixed retirement ages of 65 and less?

It would be tempting to ascribe this result to the form of the question that was asked. The respondent was not being asked whether or not he believed in a fixed retirement age; he was asked to assume that it existed and then, under this assumption, to say what the age should be. It might be argued that it is thus unfair to suppose that naming an optimal age implies acceptance of the idea of compulsory retirement as such.

Unfortunately—from the standpoint of simplicity—this easy explanation cannot be accepted, in light of the evidence from another question. Workers were also asked whether they believed

that everyone in the same line of work should be retired at the same age, or that some individuals should be retired sooner than others. The replies were not analyzed in terms of age-sex groups, but the distribution of responses for the sample as a whole is available. We find that 46 per cent of all the workers interviewed said either that everyone, or everyone in the same line of work, should be retired at the same age, while 54 per cent indicated that some individuals should be retired sooner than others. Interestingly enough, for the sample as a whole, 43 per cent of the workers, in replying to the question reported in Table 14, accepted the *idea of a fixed retirement age without qualification*, while the proportion falling into the other three categories (all of which either explicitly or implicitly admitted the possibility of individual differences) was 57 per cent. This close correspondence between the sets of responses to the two questions leaves little leeway for the operation of specific effects attributable to the form of the question. Apparently the verbal attitudes, at least, of nearly half our workers were favorable to a fixed retirement age for all workers who were doing the same kind of work.

It is difficult to see what advantages to the individual a compulsory retirement policy might appear to have over one which permits the individual to exercise an option in the matter. The possibility must be considered, however, that the workers who favored force retirement at a standardized age were not thinking in terms of advantage to themselves, but were taking a larger view from the standpoint of the welfare of the company or of society in general. Many of the responses to the question relating to the age of retirement contained comments that permit us to gain some information on this point. These responses were classified in terms of the interests which the workers seemed to be taking into consideration in their attitudes toward a fixed retirement age. The interests that appeared to be considered frequently were: (1) the worker's own personal interest, (2) the welfare of the company, and (3) obligations to society or to some segment of society (such as, for example, younger workers).

Approximately a half to two-thirds of the workers in all groups seemed to be speaking from a purely personal point of view (see Table 14). The proportion was highest among the younger women

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and lowest among the older women. Conversely, a third to a half of the workers appeared to be taking into consideration interests other than their own, while a sixth to a fourth definitely subordinated personal considerations. The welfare of the company

TABLE 14
INTERESTS CONSIDERED BY THE WORKERS IN EXPRESSING OPINIONS
ABOUT A FIXED RETIREMENT AGE

Interests considered	Younger men	Older men	Younger women	Older women	Men	Women
Worker's only.....	58%	54%	69%	51%	57%	65%
Worker's and others'.....	22	27	15	22	23	17
Total mentioning worker's.....	80%	81%	84%	73%	80%	82%
Worker's not considered.....	20	19	16	27	20	18
Total.....	100%	100%	100%	100%	100%	100%
Company's only.....	10%	12%	13%	21%	11%	15%
Company's and others'.....	15	16	10	17	15	12
Total mentioning company's....	25%	28%	23%	38%	26%	27%
Company's not considered.....	75	72	77	62	74	73
Total.....	100%	100%	100%	100%	100%	100%
Society's only.....	8%	6%	3%	3%	7%	3%
Society's and others'.....	11	15	7	14	12	8
Total mentioning society's....	19%	21%	10%	17%	19%	11%
Society's not considered.....	81	79	90	83	81	89
Total.....	100%	100%	100%	100%	100%	100%
Number of responses.....	290	232	137	63	522	200

tended to be mentioned somewhat more frequently than the interests of society. Differences between the younger and older men were slight, but there appeared to be some tendency for the older women to consider the welfare of the company more and their own less than did the younger women. Between sexes, relatively more men than women appeared to take cognizance of the larger aspects of society's interest in retirement ages.

Thus the hypothesis that the workers who appeared to favor a fixed retirement were willing to subordinate their personal interests to those of the company and society in general does not seem to be supported by these findings. It is true that some employees develop a strong sense of loyalty to their companies, but in our sample more than 80 per cent of the workers appeared to feel that their personal interests were important in this matter, and more than 70 per cent gave no indication of considering the company's interests at all.

We seem to have arrived at an inconsistency in the attitudes of our workers. Among the older men—in whom the evidence of inconsistency was strongest—only about 25 per cent appeared to want to retire when they ultimately quit working, 80 per cent expected reduced income after retirement, and many gave various indications of negative attitudes toward retiring. They appeared to be a normally self-seeking group of men, motivated by no excess of altruism, yet nearly half of them gave evidence of favoring a fixed retirement age at (on the average) 65.

Similar attitudes on the part of younger men are more understandable. The idea of having a steady income without working for it is essentially an appealing one, while the threatening and constrictive aspects of forced retirement which is 25 or 30 years in the future are not likely to be very impressive.

It may not seem nearly so reasonable to adduce the same factor of time perspective in explanation of the attitudes of the older men. The youngest of these was only 15 years from the fateful age of 65, while the average was only seven or eight years less than 65. The attitude differences we have found between the younger and older men have suggested that the older men were less favorably disposed to the idea of retiring, and we have attributed this to the greater imminence of the event for them.

It may be, however, that the age of 65 still appeared remote to a substantial proportion of our older men. In other words, they may have regarded retirement as still a long way off when it was only five to ten years in the future, and may therefore have tended to maintain toward it their attitudes of earlier years. To test this hypothesis, the replies to the questions relating to retirement age were analyzed for workers below 60 and those 60 or older. When

this was done it was found that about twice the proportion of workers between 50 and 60 expressed themselves in favor of forced retirement as did those who were 60 or more. Similarly, about twice the proportion in the younger subgroup suggested a retirement age below 65.

It could be argued that this finding might represent an artifact of selection—that the relatively old men who had not already retired would naturally be those who were most opposed to retirement. This argument would be less applicable, however, if we removed all the workers of 65 or more and compared those from 50 to 59 years with those who were 60 to 64. Even on the basis of this comparison, however, a significantly higher proportion in the younger sub-group favored fixed retirement. Thus, insofar as it could be tested, the hypothesis was supported.

SUMMARY

Despite the important stake which industrial workers would appear to have in matters affecting their own retirement, the majority of workers in our sample seemed to be willing to leave decisions affecting the age of retirement to others. At the same time, there was great diversity of opinion as to who should make the decision.

Furthermore, although the majority of workers appeared to have doubts about the desirability of a fixed retirement age, a sizable minority accepted the idea of a fixed retirement age without qualification. Nevertheless, there was a distinct tendency for the older workers to be less receptive than the younger workers to the idea of a compulsory retirement age and to mention a later age for retirement, if they mentioned any at all. These attitudes on the part of older workers showed up particularly clearly among the men who were 60 or more.

An age difference in attitudes toward compulsory retirement is consistent with our other findings on attitudes toward the prospect of retirement. At the same time, it must be recognized that we have not fully explained why so many of the younger men and women, and at least some of the older workers, seemed to have positive attitudes in favor of compulsory retirement. Probably it would be necessary to review the development of retirement

policies in industry, and the relationships of this development to age trends in the population, the state of the labor market, and a number of other factors, in order to elucidate the point completely. One or two observations may be made, however, without attempting to develop definitive answers.

First, the positive attitudes of many women toward compulsory retirement are undoubtedly related to the fact that many if not most women in industry look upon their jobs as temporary expedients. Secondly, as one writer has suggested, the ambiguities inherent in the whole idea of a flexible retirement system may be disturbing to some workers.¹ And finally, so far as younger workers are concerned, it may well be that some of them feel their own job security is enhanced by a system that ensures retirement of older men at a fixed age. Older workers, they might argue, enjoy superior job security in any period of threatened unemployment because of their relatively high seniority standing. Therefore, to the extent that the retirement of older workers is brought about through a compulsory retirement system, fewer young workers would be threatened with loss of their jobs in a period of business recession.² Furthermore, they might add, the retirement of older workers helps to keep open the channels of promotion and advancement for younger workers.

¹ See Raymond G. Kuhlen, "Changing Personal Adjustment During the Adult Years," in *Psychological Aspects of Aging*, Proceedings of a Conference on Planning Research, Bethesda, Maryland, April 24 to 27, 1955 (Washington, D.C.: American Psychological Association, 1956), p. 24.

² For a similar interpretation of attitudes of younger union members toward pension plans, see Melvin K. Bers, *Union Policy and the Older Worker* (Berkeley, California: Institute of Industrial Relations, University of California, 1957), p. 82.

CHAPTER VII

WORK PERFORMANCE

The assumption that work performance declines with age is probably one of the most significant deterrents to the hiring of older workers. Actually there is little objective evidence on the relation between age and productive efficiency. A recent study emphasized the great variability within age groups. Individual older workers had higher output rates than younger workers in many instances. The data "suggested that an employer, in considering an applicant for employment, should evaluate the potentialities of the individual rather than attempt to draw conclusions from his chronological age."¹ The study was essentially an exploratory one on a limited sample of manufacturing plants.

A number of methodological difficulties remain to be solved in the study of the relation between age and work performance. A major problem is the determination of reliable and valid measures of work performance. Direct measures of productivity are usually difficult to obtain, particularly for time workers. Although some direct measures of productivity were secured in the present study, the number of workers covered was quite small. In addition, some of the companies studied employed a system of periodic merit ratings. Supervisor's ratings of the employee's value to the company provided, however, the most complete coverage. A Worker's

¹ See Jerome A. Mark, "Measurement of Job Performance and Age," *Monthly Labor Review*, 79 (December, 1956), 1410-1414.

Evaluation Form (WEF) was constructed in order to provide a basis for an evaluation of the worker's performance on the job by his immediate supervisor. This form is described more fully in the appendix.² It was our primary measure of work performance.

It has not been possible as yet to make any systematic study of the relation of supervisors' ratings to data obtained on productivity or to merit ratings of the company. However, a preliminary analysis of the relation between ratios of actual to standard production records and WEF ratings for 30 punch press operators from one plant yielded a correlation of + .80. The result is encouraging, but clearly does not provide a definitive answer to the reliability of supervisors' ratings.

For present purposes, WEF ratings have been classified into *low* and *high* ratings. Those from one to five on a seven-point scale of overall value to the company have been (somewhat arbitrarily) called *low*; ratings of six to seven have been designated as *high*.

We have attempted, in previous chapters, to analyze attitudes toward work, age and aging, and retirement. How are these attitudes related to the productive efficiency of the older worker? Do workers with more positive attitudes tend to be rated as better workers? Is the cultural stereotype of the older worker as less productive reflected in his actual performance on the job, or at least in his performance as viewed by his supervisor? In considering these questions, we must bear in mind the limitations of supervisors' ratings as measures of work performance. At best we may hope for fruitful leads for future research.

OBJECTIVE VARIABLES AND WORK PERFORMANCE

If work performance does decline with age, we should expect that older workers would be rated significantly lower by their supervisors than would younger workers. A total of 36 per cent of all the ratings fell into the *high* category. In the four age-sex groups, the percentage in the *high* category for each was: younger men, 37; older men, 31; younger women, 41; and older women, 44. Women tended to receive somewhat higher ratings

² See Appendix C.

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than men, but none of the group differences could be considered statistically significant.

More detailed data for ten-year age groups are presented in Table 15. Women of 60 or more received noticeably higher ratings than did men of the same age group. Males in the 60 and older group received, in fact, the lowest percentage of high ratings, 23. The proportion of high ratings for the women in this age group

TABLE 15
DISTRIBUTION OF WORK PERFORMANCE RATINGS

Age	Men				Women			
	Low* ratings (1 to 5)	High* ratings (6 to 7)	Total per cent	Total number of cases	Low ratings (1 to 5)	High ratings (6 to 7)	Total per cent	Total number of cases
Younger group								
Under 30 years..	66%	34%	100%	41	61%	39%	100%	38
30 to 39 years...	58	42	100	88	60	40	100	60
40 to 49 years...	65	35	100	120	56	44	100	55
Total.....	63	37	100	249	59	41	100	153
Older group								
50 to 59 years...	64%	36%	100%	142	58%	42%	100%	48
60 and older....	77	23	100	78	52	48	100	23
Total.....	69	31	100	220	56	44	100	71

* In this and the following tables of this section, *low* includes intervals 1-5, *high* 6-7, on the WEF scale for overall value to the company.

was, moreover, the highest for any age-sex group. Part of the difference may be attributed to the fact that these older women had been working longer, on the average, for their respective companies than had the older men. The critical question is, however, whether or not men aged 60 and older do tend, in general, to be regarded as relatively less valuable by their supervisors. In view of the limitations of the data, our results must be regarded as highly tentative, but they are consistent, on the whole, with the results of certain other studies.

Occupational level as such should have had no systematic influence on work performance ratings, since supervisors were instructed to rate their workers in relation to all other workers they supervised in *the same job*. There was, however, a consistent tendency for skilled workers to receive a higher proportion of

favorable ratings in all four age-sex groups (see table 16). Although the differences were not significant for individual groups, when all four groups were appropriately weighted and combined, the relationship between occupational level and performance ratings was found to be significant. The findings do not, however, suggest that the correlation was high, and it may well have been attributable to "halo" effects in the ratings.

Another objective variable which might be expected to be related to work performance ratings is educational level. Actually we found no evidence of a significant relationship except in the case of older women, among whom a relatively high proportion of the better educated workers received comparatively low work performance ratings. This finding may have resulted in part from the inclusion in the sample of a group of older women who migrated to the United States prior to World War I and had received little or no schooling in this country. Most of these women were employed in one of the few plants in which a majority of all the workers interviewed were given high ratings by their supervisors. However, it would not be surprising to find that a high educational level is negatively correlated with work performance in the highly routinized, repetitive work that many older female workers perform—and continue to perform year after year.

The presence or absence of a formal retirement policy or the unionization of workers might also conceivably have an impact on efficiency. Table 16 reveals a significant relationship between WEF ratings and the presence or absence of a formal retirement policy for older male and younger female workers, although the relationship was in the opposite direction in the two cases. Upon further analysis, it was found that the relationship for the female group reflected the inclusion in the sample of a group of young women in a plant with no formal retirement policy and for whom the proportion of high ratings was extremely low. The relationship for the older males was more pervasive, and its direction is important. Apparently, older men who worked in plants without retirement policies tended to receive higher work performance ratings.

We may speculate that these older workers, whose future was less structured, who had no expectation of a pension, and did not expect to be automatically retired when they reached a given age,

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TABLE 16
WORK PERFORMANCE RATINGS BY SKILL LEVEL, EDUCATION
AND FIRM'S RETIREMENT POLICY

Skill level, education, and retirement policy	Younger men		Older men		Younger women		Older women	
	Low ratings	High ratings	Low ratings	High ratings	Low ratings	High ratings	Low ratings	High ratings
Skill level								
Skilled	37%	47%	57%	64%	14%	24%	13%	20%
Semiskilled and unskilled	63	53	43	36	86	76	87	80
Total	100%	100%	100%	100%	100%	100%	100%	100%
Number of cases	144	87	129	61	80	55	31	20
Education (years of school com- pleted in Unit- ed States)								
Less than 8 years	14%	18%	33%	29%	9%	8%	23%	50%
8 years or more .	86	82	67	71	91	92	77	50
Total	100%	100%	100%	100%	100%	100%	100%	100%
Number of cases	154	91	141	65	87	62	39	30
Retirement policy in the worker's plant								
Formal retire- ment policy and pension . . .	51%	42%	76%	54%	38%	67%	21%	12%
No formal re- tirement pol- icy or pension	49	58	24	46	62	33	79	88
Total	100%	100%	100%	100%	100%	100%	100%	100%
Number of cases	120	77	131	56	71	46	28	16

were more highly motivated. They may have felt a continuing pressure to perform well on the job. Those workers who expected to retire on a pension at a given age were less motivated to continue to prove themselves. The evidence is still slight and obscure. Should the hypothesis be substantiated, it would constitute

a telling point against current policies providing for a compulsory retirement age.

We may summarize, briefly, the remaining results on the relationship between WEF ratings and objective variables. There was no evidence that unionization or lack of it contributed to the level of the WEF ratings. While statistically significant for women only, there was a tendency for workers in the sample who had longer employment with their companies to receive higher ratings. On the whole, supervisors' ratings of work performance seemed to be practically independent of their ratings of a worker's age. A possible exception occurred among the older men where there was a tendency for men judged younger to be given higher ratings.

RELATION OF ATTITUDE VARIABLES TO WORK PERFORMANCE

1. *Attitudes Toward Job and Work.*—A worker's attitudes toward his job and work had little relation to his work performance rating. Variables studied included the worker's statement concerning whether his job had been getting better or worse in the last five years and whether he would continue to work if guaranteed his income. Younger men who preferred new learning did tend, however, to be rated significantly higher than those who did not (see Table 17). The difference was not significant for older men, but was in the same direction. The female groups showed differences which were not reliable and were not consistent with one another in direction. Attitudes toward routine work, familiar change on the job, and liking for the job showed no significant relationship to WEF ratings.

2. *Attitudes Toward Age and Aging.*—We have noted previously that some older workers viewed themselves as younger than their chronological ages would suggest. What implications does such self-perception have for work performance? There was, apparently, a highly significant association in the older, male group between work performance ratings and the workers' self-perceptions of their ages (see Table 18). A relatively large proportion of the older men who viewed themselves as comparatively young were given high ratings by their supervisors. A similar difference showed up in the case of the older female group, but

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it was not large enough to be considered significant. Nor were the differences (in the opposite direction) significant in the cases of the two younger groups.

TABLE 17
WORK PERFORMANCE RATINGS BY ATTITUDES TOWARD
VARIOUS TYPES OF WORK

Attitude	Younger men		Older men		Younger women		Older women	
	Low ratings	High ratings	Low ratings	High ratings	Low ratings	High ratings	Low ratings	High ratings
Likes new learning ^a	60%	79%	60%	66%	51%	33%	18%	27%
Prefers other types	40	21	40	34	49	67	82	73
Total.....	100%	100%	100%	100%	100%	100%	100%	100%
Number of cases..	92	61	83	39	51	37	22	11
Likes familiar change ^a	85%	90%	87%	90%	78%	76%	55%	55%
Prefers other types	15	10	13	10	22	24	45	45
Total.....	100%	100%	100%	100%	100%	100%	100%	100%
Number of cases..	92	61	83	39	51	37	22	11
Likes routine ^a	15%	10%	36%	23%	43%	43%	69%	64%
Prefers other types	85	90	64	77	57	57	31	16
Total.....	100%	100%	100%	100%	100%	100%	100%	100%
Number of cases..	92	61	83	39	51	37	22	11

^a Either prefers this type of work to others or likes others as well, but not better.

It would be of considerable interest if supervisors' ratings were found to be related to "subjective" or "psychological" age rather than to "objective" or chronological age. Thus, for example, if within the group of older workers there were no correlation between chronological age and descriptive self-rating, then chronological age differences could not be held responsible for the relationship between the self age rating and the work performance rating. This condition is not met, however; the correlation is .34 (about five times its standard error). Or, if within the older male

group, there should be no correlation between chronological age and work performance ratings, then again the relationship between self age rating and work performance could not be attributed to the factor of chronological age. And this condition is met; the correlation is negligible ($r = -.05$, less than its standard error).

TABLE 18
WORK PERFORMANCE RATINGS BY DESCRIPTIVE SELF-RATING OF AGE
AND EXPECTATIONS FOR THE FUTURE

Attitude	Younger men		Older men		Younger women		Older women	
	Low ratings	High ratings	Low ratings	High ratings	Low ratings	High ratings	Low ratings	High ratings
Self-rating of age								
Less than middle-aged..	58%	56%	49%	75%	78%	65%	25%	30%
Middle-aged or older.....	42	44	51	25	22	35	75	70
Total.....	100%	100%	100%	100%	100%	100%	100%	100%
Number of cases	132	82	122	57	87	54	83	20
Expectations for the future								
Expect things to get better....	56%	61%	33%	17%	57%	43%	24%	47%
Expect things to get worse.....	44	39	67	83	43	57	76	53
Total.....	100%	100%	100%	100%	100%	100%	100%	100%
Number of cases	102	74	107	48	60	47	29	19

In our sample, then, older men who rated themselves as relatively young tended to do better on their jobs than those who rated themselves as older. Here is an indication of individual differences in *aging* rather than in *age* which is related to work performance. The ramifications of such a relationship are, potentially, great. We have previously noted that male workers 60 and older had been rated relatively poorly on work performance. There were some qualifications. We may now add, further, that an older worker's performance rating was not simply related to age, but

to how the older worker felt about himself. Here is additional evidence, though highly tentative, of variability among older workers and the importance of individual differences. There is an obvious need for further research around this crucial point of what factors make some older workers more productive than other older workers. One hypothesis seems to be the self-perception of the older worker as to his functional or psychological age.

3. *Attitudes Toward Retirement and the Future.*—A few rather tenuous relations were found between a worker's attitudes toward retirement and the future and his work performance rating. There was some evidence of a relationship in the older, male group between the worker's general expectations for the future and WEF ratings. A relatively large proportion of older men with low ratings reported that they expected improvement in their status in the next few years. Workers with high ratings were more likely to expect no change or a worsening of their position (see Table 18). It does not seem likely that pessimism as such would be conducive to superior work performance. It is plausible, however, that recognition of an insecure future might motivate some older men to work harder in an effort to improve, or, perhaps, merely to maintain, their position. Such an interpretation would be consistent with the previously reported relationship between higher work performance ratings and absence of a formal retirement policy.

Neither the worker's belief in his ability to command another job as good as his current one or his expectations on leaving his job bore any relation to his work ratings. With one minor exception, none of the variables involving attitude toward retirement showed any noticeable correlation with WEF ratings, either within single groups or when groups were combined. The exception involved attitudes toward whether workers in general should be retired at a fixed age. A higher proportion of older women with low ratings believed in a fixed retirement age. Younger women showed a trend in the same direction.

SUMMARY

On the whole, we found few significant relationships between work performance measures and either the objective or attitudinal variables investigated. Had it been possible to study other variables, particularly the many responses to attitudinal questions which were not included in this analysis, more significant relationships might have emerged. Furthermore, the limitations of the work performance measures must be kept in mind. Nevertheless, it should be noted that other studies have likewise shown an absence of positive correlation between productivity and attitudes toward jobs.⁸

Certain interesting and significant relationships did emerge from the analysis of the work performance data, however. There was a tendency for skilled workers to receive relatively more high ratings. In addition, older men who worked in plants without formal retirement policies tended to receive comparatively high ratings, as did those who felt insecure about their future prospects. These last two relationships may have been associated with a high level of motivation on the part of the older worker who was worried about his future employment status.

Older workers, in general, did not receive significantly different supervisors' ratings from those received by younger workers, but when men aged 60 or older were considered separately they did tend to receive a smaller proportion of high ratings than younger men. This finding is not inconsistent with the results of other studies but needs a good deal of further investigation. So does our highly tentative finding that "subjective" or "psychological" age may be more closely related to work performance than chronological age. Older male workers who perceived themselves as younger than their chronological ages would have suggested, tended to be rated more favorably by their supervisors than older male workers who saw themselves as old. If it is true that the chronologically old, but psychologically young worker, tends to perform more adequately than the worker who is both chronologically and psychologically old, we have discovered an important factor for determining individual differences in our aging population. Further research is obviously needed.

⁸ See Arthur H. Brayfield and Walter H. Crockett, "Employee Attitudes and Employee Performance," *Psychological Bulletin*, 52 (September, 1955), 396-424.

CHAPTER VIII

OCCUPATIONAL DIFFERENCES

The occupational hierarchy in our society is recognized as having a substantial influence on the psychology of the worker. Here we are concerned with what effects differences in occupational level may have had on the attitude variables we have been investigating. More particularly, we may ask if these effects were different for younger and older workers. For purposes of analysis, we have classified workers into skilled or semiskilled and unskilled. Data are presented for males only, since the small number of females classified as either skilled or unskilled did not justify similar comparisons for the female groups.

Relatively few of the attitude variables studied were related in any significant degree to occupational level. But there were some important exceptions.

We have reported earlier that a great majority of men, both young and old, revealed positive feelings toward their jobs. In the older group the proportion who liked their jobs was the same regardless of occupational level. The younger group, however, showed differences between skill levels: a significantly greater proportion, though still a distinct minority, of the semiskilled and unskilled workers expressed no great liking for the work in which they were engaged (see Table 19). It is probable that by the time they are 50 some of these younger men will have advanced to skilled jobs and others will have shifted to other lines of work which they will like better.

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TABLE 19
OCCUPATIONAL LEVEL AND ATTITUDES OF THE MALE WORKERS TOWARD THEIR
PRESENT JOBS AND TOWARD VARIOUS TYPES OF WORK

Attitude	Younger men		Older men	
	Skilled	Semiskilled and unskilled	Skilled	Semiskilled and unskilled
Likes job	92%	77%	90%	91%
Dislikes or is neutral toward job.	8	23	10	9
Total	100%	100%	100%	100%
Number of responses	130	166	135	95
Likes work involving new learning*	86%	57%	64%	62%
Prefers other types	14	43	36	38
Total	100%	100%	100%	100%
Number of responses	72	93	72	48
Likes work involving familiar change*	90%	83%	93%	77%
Prefers other types	10	17	7	23
Total	100%	100%	100%	100%
Number of responses	72	93	72	48
Likes routine work*	4%	23%	17%	56%
Prefers other types	96	77	82	44
Total	100%	100%	99%	100%
Number of responses	72	93	72	48

* Either prefers this type of work to others or likes others as well, but not better.

We have noted previously that although the majority of male workers in both age groups tended to prefer work involving new learning or familiar change rather than routine work, there was some tendency for older workers to be more averse to new learning and more favorably disposed to routine work than younger workers. Occupational differences as well as age appeared to have

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some bearing on the kind of work preferred. On the whole, skilled workers tended to be more favorably disposed to new learning or familiar change than were the less skilled workers, while relatively few skilled workers liked routine work. These differences tended to show up in both the older and younger age groups, although among the older men, there was no significant difference between the two skill groups in the proportion liking work involving new learning.

Within skill groups, there was a tendency for relatively more older men to be favorably disposed to routine work. But this difference was particularly pronounced among the semiskilled and unskilled workers. On the other hand, the age differences in attitudes toward new learning and familiar change were not significant for the less skilled workers, whereas among the skilled workers the proportion liking work involving new learning was distinctly lower for the older men. At the same time, it must be recognized that the great majority of older skilled workers and almost half of the older semiskilled and unskilled workers reported that they preferred more variety in their work than was to be found in a merely routine job.

What about ability to get another job? As might have been expected, relatively more skilled workers in both age groups said that they believed they could get another job as good or better than their present one. This difference was particularly pronounced among the older men. Nearly half of the older skilled workers indicated that they could get another job as good or better, whereas only a fifth of the older, less skilled men made a similar claim (see Table 20). It is of interest to note that these differences in attitudes are consistent with the findings of studies of employer hiring policies, which indicate relatively less rigid barriers against the hiring of older skilled workers than against the hiring of older men in semiskilled and unskilled occupations.

Differences also appeared between occupational levels with respect to job plans. In the younger group, about half of the skilled workers expected to remain more or less permanently in the jobs they held, whereas only a fourth of the semiskilled and unskilled had the same expectations. It would appear that relatively more skilled workers in the younger age group were satisfied with their

jobs. Perhaps the most striking aspect of this finding is the expectation of job stability shown by the skilled workers. Thus, although two-thirds of the younger skilled workers had indicated that they believed they could get other jobs as good or better than the ones they held, it appeared that relatively few intended to try to change.

TABLE 20
OCCUPATIONAL LEVEL AND ATTITUDES OF THE MALE WORKERS TOWARD
ABILITY TO GET ANOTHER JOB AND TOWARD THE FUTURE

Attitude	Younger men		Older men	
	Skilled	Semiskilled and unskilled	Skilled	Semiskilled and unskilled
Attitude toward ability to get another job				
Could get another job as good or better.....	66%	52%	46%	21%
Could not get another job as good, at least not now.....	34	48	54	79
Total.....	100%	100%	100%	100%
Number of responses.....	94	112	76	66
What the worker expects to do after leaving his present job				
Expects to remain in present job until death or retirement.	49%	26%	38%	58%
Expects to work in another job or in business for self.....	51	74	62	42
Total.....	100%	100%	100%	100%
Number of responses.....	170	137	117	81

The relationship between skill level and attitudes toward changing jobs was reversed for the older age group. Here a higher proportion of the semiskilled and unskilled workers said that they anticipated remaining in their present jobs until death or retirement. This was undoubtedly attributable, in large part, to their recognition of the difficulty they would have in getting other jobs as good or better—a factor much less important in the attitudes of the younger workers. The relatively larger number of skilled

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older men who did not expect to remain in their present jobs indefinitely is understandable. A markedly higher proportion of those who were skilled believed, as we have seen, that they could better their job status. In addition, a larger percentage of these workers may have considered themselves able to finance a business enterprise of their own. This may help to explain the somewhat surprising finding that relatively fewer older than younger skilled workers expected to remain permanently in their present jobs.

TABLE 21
OCCUPATIONAL LEVEL AND THE MALE WORKERS' RETIREMENT PLANS

Plans	Younger men		Older men	
	Skilled	Semiskilled and unskilled	Skilled	Semiskilled and unskilled
Miscellaneous "retirement activities,"* including travel.	41%	64%	43%	59%
Work, including self-employment.	59	36	57	41
	<hr/>	<hr/>	<hr/>	<hr/>
Total.	100%	100%	100%	100%
Number of responses.	41	58	44	27

* See table 9.

Occupational level appeared to have an influence on types of retirement plans (see Table 21). Relatively more workers in the less skilled jobs in both age groups indicated that they intended to "really retire" when the time came. They said that they expected to pursue hobbies, do community service work, putter around the house and garden, travel, and engage in similar activities. On the other hand, relatively more skilled workers expressed an intention of continuing to work for pay either in business for themselves or in part or full time work for an employer. Interestingly, there was little difference in the expectations of the younger and older groups. The greater confidence of the skilled workers in their ability to find remunerative work probably helps to explain the fact that relatively more skilled than semiskilled or unskilled men expected to work following retirement. Perhaps, also, the greater ego investment of the skilled workers in their jobs played a role. Friedmann and Havighurst, in a study of attitudes toward work

and retirement, found that workers at higher occupational levels tended to place more stress on the extra-economic meanings of work than did those at lower levels and were also less willing to retire at the "normal" retirement age of 65. Furthermore, the workers "who stressed the extra-economic meanings of work were also the ones who were least likely to want to retire at age 65."¹

SUMMARY

It is scarcely surprising to find that skilled workers showed significantly different attitudes from those of less skilled workers in a number of respects. To a considerable extent, moreover, these differences showed up among both the older and younger workers.

Skilled workers were less likely to like routine work or work involving familiar change than were the less skilled workers. Furthermore, they were more likely to be confident of their ability to get another job and were more likely to express an intention of continuing to work when they reached the age of retirement. To a considerable extent, their replies to various questions suggested that they derived a greater degree of extra-economic satisfaction from their work, and this was probably related to their desire to continue working beyond retirement age.

At the same time, there were certain occupational differences in attitude that showed up in only one of the two age groups or in the opposite manner in the two groups. Thus, younger semi-skilled and unskilled workers stood out as a group who were less likely to express a liking for their jobs, or to like work involving new learning, or to anticipate remaining in their present jobs until death or retirement than any of the other age and skill groups. Among the older men, on the other hand, it was the skilled workers who were more likely to say that they did not expect to remain in their present jobs until death or retirement. In contrast with the older semiskilled and unskilled workers, moreover, many of them appeared to regard the future with considerable confidence. Almost half of the older skilled workers thought they could get another job as good or better than their present one. Their attitudes clearly reflected the somewhat more favorable employment opportunities open to them.

¹ See Eugene A. Friedmann and Robert J. Havighurst, *The Meaning of Work and Retirement* (Chicago: University of Chicago Press, 1954), pp. 182-83.

CHAPTER IX

A PROFILE OF THE OLDER WORKER

We have referred, from time to time, to a stereotype of the older person which is more or less peculiar to our culture. The physical decline of aging has been generalized to apply to mental functioning, to productive skills, to the capacity of the older person for adaptation, and, at times, to his attitudes toward life and toward his work. Insofar as the stereotype may be tested through a study of the attitudes of industrial workers, what have our results indicated? What sort of profile of the older worker emerges from our data?

Let us turn our attention, first, to the older male worker. In our sample of 287 older male industrial workers, the median age was approximately 58 years. More than a third of the men were 60 years of age or older; a few were 70 or more. The typical member of the group had an eighth grade education. His father was either a farmer or a skilled worker. The majority of the men in the group were married. Their wives were not, as a rule, in the labor force. Most of the men were employed in manufacturing industries, about half of them at the level of skilled craftsmen and only about one in ten at the level of unskilled laborers. On the average, they had been working for their companies about nine years. At least half were union members. Roughly 40 per cent worked in plants with compulsory retirement policies, providing for retirement at age 65 in the majority of instances. An approxi-

mately equal number worked for companies with no formal retirement policies. Participation in the study was entirely voluntary for about half of them; the others were encouraged to participate by mild pressure from their supervisors. The great majority of the men were considered by their interviewers to have given satisfactory interviews. On the whole, the sample consisted of a fairly stable group of workers, most of whom had reasonably good manual jobs by current standards.

The majority of these older workers had positive feelings toward working, toward their jobs, and toward their work histories. Almost half of them said that they would continue to work even if they were guaranteed their existing income without working. In general, these men tended to prefer jobs with some variety in the work, but they were somewhat more likely to prefer the variation to consist of familiar operations rather than to involve the learning of new skills. Most of the older workers had adverse attitudes toward purely routine work, although when the men were classified by skill level, it was found that this was true only of the skilled workers, whereas the majority of older semiskilled and unskilled workers preferred routine work. It would appear that the majority of the older men in our sample felt secure in their jobs and were well satisfied with and adjusted to them. Many placed the idea of working high in their system of values and probably had considerable ego-investment in their work.

How did the older worker regard the process of aging? Only a very small proportion saw themselves as old when asked to rate themselves on a descriptive age scale. Most of them believed that middle-aged or older persons were likely to do better than younger workers in jobs like their own. Although they did not think that age influenced the way in which their bosses treated them, over half of them felt that they would be more useful to their companies if they were younger. On the whole, they expressed little preference for co-workers of any particular age level, but appeared reasonably well satisfied with the co-workers they had, regardless of age.

In viewing their economic future, about half said they expected their personal situations to remain about the same. Approximately one out of four expected improvement, while

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about one out of five anticipated a worsening of his personal lot. About a third of these older men thought they could get another job as good or better than their present one. While only a sixth expected to seek a job with another company after leaving their present jobs, approximately a third indicated they expected to go into business for themselves (many of them after retirement was forced upon them). Significantly, the skilled workers were relatively more likely to think they could get another job as good or better than their present one and to anticipate seeking a job with another company or going into business for themselves.

The majority of these older male workers did not want to quit working at a fixed retirement age. However, about three out of ten indicated they expected to be forced to retire. The majority of the remaining men said they would work as long as they were physically able, while about a fourth indicated they would want to retire while they still had some time remaining to them. The majority expected to retire before the age of 70, whether through compulsion or preference, while about three out of ten did not expect to quit working until they were 70 or older.

Despite the imminence of retirement for many of the older men in our sample, nearly two-thirds indicated that they had no definite retirement plans. Among those who did mention plans, almost half expressed an intention of pursuing some remunerative work, whether as self-employed or employed by others. Prominent among the plans for private business ventures was buying (or building) and operating a motel. This ambition seemed to have replaced the traditional chicken farm as a symbol of the ideal occupation after formal retirement. Slightly over half mentioned unpaid activities which are usually considered appropriate for retirement: working about the house and garden, travel, pursuit of hobbies, community service activities and the like. It should be noted that even among the relatively small number of plans mentioned, at least one-third seemed unrealistic and improbable of achievement in view of the very limited financial resources of the planners.

The evidence suggested that the financial resources of these older male workers would be limited. While the great majority said they expected to receive social security and/or a pension

after retirement, two-thirds denied that they would have any other income.¹ Only one-fourth of them expected their income during retirement to reach 75 per cent or more of their present income. And even among those who said they did anticipate maintaining their present income, or almost so, there was evidence that for about half of these workers the expectations were probably not realistic.

Despite a prevailing disinclination toward personal retirement, the attitudes of these older men toward retirement policies displayed wide variation. Rather interesting was the fact that when asked who should determine when workers should retire, fewer than half indicated that the individual worker should have a voice in the decision. But there was relatively little agreement as to whether the company, the union, or the government should determine retirement policy. Asked when a worker should be retired, a small majority gave a numerical response, although some of these made the suggested age contingent upon one condition or another. About six out of ten of those mentioning a specific age for retirement placed it at 65 or above. The median age suggested fell not far above 65.

We have summarized the attitudes which might be said to characterize an average older worker in our sample. What were the attitudes which were found to differ between the group of young males less than 50 years old and older males, 50 years and more? These are the attitudes that might be expected to change with advancing years. It cannot be assumed, of course, that the members of our older male group formerly held the views now held by the younger male workers in the sample. It is possible, for example, that differences between the groups might be attributable to a general cultural change and hence reflect differences in background and training between the two generations. It is at least equally possible, however, that the differences might be associated with attitudes and beliefs which tend to change

¹ This was true despite the fact that slightly more than half of them said that they expected to continue working for others or in business for themselves after leaving their present jobs. This apparent inconsistency probably was not attributable to an expectation on the part of many workers that they would leave their present jobs, prior to retirement or the usual retirement age. It probably reflected rather an implicit recognition that their "intentions" of continuing to work after retirement were unrealistic.

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within the individual as his age advances. In this sense, they could be regarded as probable manifestations of psychological aging.

The character of the attitudes and beliefs found to differ significantly between the older and younger workers rendered it likely that the differences were, in large part, the result of intra-individual changes. On the assumption that this is the case the attitudes may be generally classified into two types: 1) those which reflect directly the worker's perception of the changing role which society imposes upon him as he grows older and 2) those which reflect, either directly or indirectly, changes in the worker's perception of himself and his abilities.

The first type includes primarily attitudes involving expectations for the future. Changes in attitudes of this type appeared to be realistically oriented. Thus, a significantly smaller proportion of the older than of the younger male workers expected their general welfare to improve in the future. Fewer older workers believed they could get another job as good, if they were to quit the one they had. Relatively more of the older workers expected to remain in their present jobs until they died or retired.² Although a larger proportion of older workers expected to have some monetary income in addition to a pension and/or social security, relatively fewer of them expected their incomes during retirement to be as high as their current income. Furthermore, a smaller percentage of the older workers reported that their jobs had improved over the last five years.

Clearly evidenced in these attitudes of the older workers was an awareness of decreasing freedom of choice and movement with respect to jobs.

The second type of attitude difference found between the older and younger men seemed in considerable part to be reactive to the same set of unpleasant perceptions as were the attitudes of the first type, but much less directly. By and large, the second type seemed to center about a greater ego investment in work and a need to postpone the inevitable separation from work as

² Relatively more older workers also expected to be forced into retirement. This may not have been a function of age, but a reflection of the fact that comparatively more older than younger men in the sample worked in plants with compulsory retirement policies.

long as possible. Thus relatively more older men indicated that they would like to continue working as long as they were able. Fewer said they wanted to retire. More expected to work until they were 70 or older. Their attitudes toward retirement age in general showed somewhat similar differences: fewer mentioned a definite age at which they believed workers generally should retire; and among those who did, the average age mentioned was older. More older men expressed a positive liking for their jobs; fewer expressed preferences for nonroutine kinds of work; and, more said they believed that older men were likely to do better than younger in their particular line of work.

Although all of the differences cited above were statistically significant, it should be recognized that no clearcut differences between the older and younger workers were found for many of the attitudes investigated. Furthermore, in practically no instance did a difference obtained imply a shift or change of attitude in a majority of the members of the group. In fact, rarely did the difference exceed 30 per cent. From certain points of view, it would be more appropriate to emphasize the similarities of the older and younger workers' attitudes rather than the differences between them.

One striking similarity between the responses of the older and younger workers which may be of considerable importance had to do with retirement plans. Not only did two-thirds of the older men admit to no definite plans at all for their own retirement, but as a group they manifested no more interest in the matter than did the male younger workers, who averaged twenty years younger. Even those older men who did mention some plans very often did so in an offhand, vague, or hesitant fashion, as though they had thought very little about the matter. A good proportion of the plans were obviously unrealistic and impracticable. Many of these men recognized that they would have little more than half their present income to live on after they retired, but appeared to have no idea how they would manage or what the change in their living conditions might mean to them. Some of those who faced retirement within five to ten years said they hoped that by the time they retired they would have accumulated savings, income property, or the like, which would enable them to carry

out rather grandiose plans (or, for that matter, merely enable them to maintain their present standard of living). They had, however, not "yet" started the necessary savings or investments. This particular group was relatively small, it is true, but it illustrates an approach to the problems of retirement which characterized a larger number of men to a somewhat lesser degree.

The overall picture presented by a study of the attitudes of the older male workers is one of good adjustment to the present and inadequate orientation toward the future.

The approach of retirement constituted a formidable threat to many of these men, which they countered chiefly by repression, rationalization, and wishful thinking. The majority of them appeared to recognize the increasing limitations imposed upon their activities. Their present jobs assumed increasing importance to them as symbols of their success in staving off their inevitable separation from many of the things that they most valued. And many of those who did not expect to continue in their present jobs indefinitely achieved perhaps some measure of reassurance through the (often unrealistic) expectation of going into business for themselves.

There are good reasons why a prospective forced retirement almost necessarily becomes a threat to the personality as it draws near in time. To a great many persons (and certainly to a large proportion of the workers in our sample) having a job constitutes one of the principal sources of satisfaction for a number of very strong and very important psychological needs. It provides the basis for economic security; it offers an opportunity for identification with a group and a feeling of belongingness; it enables one to feel productive, useful, self-sustaining, acceptable, and wanted. Forced retirement threatens to sever some of the worker's most important ties to the rest of the world. It becomes a symbol of rejection and impending dissolution, and tends to destroy a sense of personal worth. It implies that the worker will continue to exist, if at all, only on sufferance, and usually with much diminished resources. In a very real sense, it is a preview of death.

Only one out of four older workers gave evidence of really wanting to retire. Yet a much larger number appeared to accept the policy of compulsory retirement at a fixed age as right and

proper. The majority of them did not even seem to feel that the worker himself should necessarily play any part at all in deciding when he should be retired.

The principle of a fixed retirement age might be expected to appeal primarily to younger men, whose own advancement awaits the departure of aging incumbents. The principle is sanctioned by practice, and it is in line with the prevailing cultural stereotype of older people. Fixed retirement tends to be associated with a pension plan and may be accompanied by other benefits. It is an attractive idea and one easy to accept while one's own retirement itself is still remote and vague, many years in the future. By the time the worker finds his own retirement is imminent, begins to realize that a pension usually bears little resemblance to a working wage, and commences to feel the anxieties which arise from the threat of retirement to his basic psychological needs, his attitude of acceptance toward compulsory retirement at 65 has become so fixed that it never occurs to him to question it. For him and for his generation, at least, it is practically an *idée fixe*. Furthermore, the uncertainties associated with the idea of flexible retirement policies may be disturbing to him.

Thus, as a worker approaches retirement he may reach the position of supporting a practice which is contrary to his own underlying interests, needs, and wants. Although some attitude changes are forced upon older workers by the objective situation, and others are brought about internally as ego defenses, it does not follow that still other attitudes will change as well, merely because they are related logically.

As noted above, not all older men showed the same reaction to impending retirement. A minority of them seemed to want to retire to pursue other than work interests. Some showed no awareness of any constrictive effects with advancing age, and some did not perceive retirement as threatening. And it is true, of course, that many persons achieve a satisfactory adjustment and a rewarding life in retirement. Here, as in most situations involving numbers of people, individual differences are greater than group differences.

The results of the present study suggest that skilled older workers retain feelings of personal worth, freedom of choice, and

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self-determination in their fore-shortened future more than the semiskilled and unskilled workers of the same age do. At the same time, although the skilled workers tended to face the future with greater confidence, they appeared even less inclined to accept the idea of retirement than the less skilled workers. A larger proportion of them—a majority, in fact—expected to work after retirement from their regular jobs. Furthermore, even in this elite group of older workers, relatively few were able to offer any clearcut and realistic plans for their own retirement.

What little data we have that bear on the point do not suggest that pre-retirement counseling or even fairly intensive pre-retirement training greatly affects the older worker's present attitudes toward or appraisal of his own retirement. The repressive defenses of the average worker may well be too strong, and his need to ignore his impending retirement too intense, to permit him to profit a great deal from these methods. It seems very likely that those workers who manage to make retirement a positive part of their lives will not do so primarily by virtue of pre-retirement counseling, but chiefly because of life-long habits of forethought and planning, and long-term cultivation of broader interests. It must be recognized, however, that relatively few firms in our sample had any program of preparation for retirement, and our data do not provide an adequate test of the effectiveness of such programs.

SEX DIFFERENCES AND THE FEMALE WORKERS

Having a job does not mean the same thing to a woman as it does to a man. The average male industrial worker expects to work for pay throughout his adult life, at least until he is 65. To the average woman employed in industry her job is essentially a temporary expedient, a stop-gap activity to which she is typically driven by the necessity to make a living or to produce additional family income. She may quit working to get married. She may take off several years to raise a family. If she is married, she is likely to retire when her husband does, or before. Even if circumstances decree that she spend her entire life in paid employment, it is likely that home and family retain highest places in her value

system, and that the job remains basically a substitute form of activity. It is true even today that in this sense at least the average woman's place is in the home. There are many exceptions to this rule, of course. In our emancipated age it may well be that the number of women whose attitudes toward jobs and work are thoroughly masculinized is on the increase. As yet, however, these women constitute a distinct minority.

The attitudes shown by the female workers in this study offer strong support for these statements. By and large, work and retirement had a very different significance for the men and for the women in the sample.

For example, the female workers seemed to show considerably less ego-investment, less emotional involvement, in jobs and in working than did the male workers. At the time of first starting to work the women expected less from their job future, and, in retrospect, they were better satisfied with comparatively modest accomplishments. Whether from lack of effort or lack of opportunity, a much smaller percentage of women than men achieved skilled status. And for whatever reason, many fewer women professed to like jobs involving the learning of new skills; many more indicated that they preferred routine work. Relatively fewer women said that they would continue working even if their present incomes were assured. To a much greater degree than was true for men, the women workers appeared to view employment as a financial transaction rather than a life interest.

As might have been expected, relatively more women than men rated themselves in the younger age brackets on the descriptive age rating scale. Although the women in the sample averaged slightly less in actual age than did the men, the chronological difference did not seem large enough to account for the differences in ratings.

The most marked sex differences obtained in the study had to do with attitudes toward and expectations for retirement. A substantially larger proportion of women than of men expressed a positive desire for retirement; and, on the whole, the women expected to retire at an earlier age. Relatively very few women intended to get another job or go into business for themselves after leaving their present jobs; the great majority of them

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expected to retire. It should be noted that "retirement," as the word is used here, refers to any cessation of employment that is intended to be permanent for whatever reason (other than death). Thus, a woman may retire at 22 to get married, if she does not expect to work again. Naturally, relatively more women than men expected to concern themselves with domestic duties and to receive non-monetary support following their retirement. Approximately the same proportion of women and men mentioned an age at which they believed workers should be retired, but relatively more of the women qualified their responses to make the age of forced retirement contingent upon the circumstances. The actual ages proposed by the women were about five years less (on the average 60 rather than 65), than those proposed by the men.

Relatively fewer women than men believed that the government should help to determine when a worker should retire; more asserted that the worker himself should participate in the decision. Somewhat fewer women than men appeared to consider the overall interests of society in their attitudes toward a policy of fixed retirement age. Although in general no more women than men could describe plans for their own retirement, the plans of the women who did offer them tended to be somewhat less fanciful and unrealistic than those of the men. There may be some justification here for the familiar assertion that women are more practical than men!

Turning now to the relationships between the attitudes of the older and younger female groups, it must be noted at the outset that the small size of the older female group may well have prevented the appearance of significant age relationships which exist in the population.

Nevertheless, some relationships were found which were statistically significant. These tended to parallel relationships found in comparing the older and younger male groups. In almost every instance in which a significant attitude difference was found between the young and old female groups, there was a difference also, and in the same direction, between the young and old male groups.⁸ This demonstrates clearly that despite the great dif-

⁸ The converse was not necessarily true, partly because of the smaller number of cases in the female groups.

ferences between men and women in general in orientation toward work and retirement, women who continued working past middle age were subjected to many of the same influences and evinced many of the same reactions as did the men in this age range. This was particularly true in their attitudes toward the future, perhaps less so in their attitudes toward retirement as such.

In interpreting comparisons between the older and younger female groups, it is well to bear in mind that relatively more of the younger women were married. This difference largely reflected the fact that many more older women (nearly one in three) were widowed. Almost half of the older women were widowed, divorced, or single, whereas this was true for fewer than three out of every ten younger women. It would appear that employment for many of the older women was essential, if they were to maintain economic independence and an acceptable standard of living. Under these circumstances, working may take on some of the symbolic values for older women that it has for older men, but not to the same extent or with the same intensity.

With regard to the past, by and large, the older women expected less progressive improvement in their jobs when they first started to work than did the younger women; and they had actually achieved less improvement. Yet more of them (almost all, in fact) expressed satisfaction with what they had done. With respect to job advancement, the older women certainly constituted the least ambitious group in the sample—partly, no doubt, because they had been offered the least opportunity for improvement. Consistent with these findings was the fact that relatively more older women than younger like routine work, and fewer liked jobs involving variety, whether the activities were familiar or required new learning.

Comparison of the two female groups on their attitudes toward the future discloses that the older women showed the same awareness of decreased freedom of choice and self determination relative to the younger women that was found for the older men relative to the younger. Thus fewer older than younger female workers expected things to get better for them in the future, and fewer believed that they could get other jobs as good or better, if they should leave their present ones. These feelings were, in

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fact, more nearly universal among the older women than among the older men.

There was a tendency among the women, as among the men, for the older workers to put their own expected retirement dates later than did the younger ones. Thus there was more than ten years difference in the medians for expected age of retirement between the younger and older female groups. And relatively many more older than younger women said they would continue working as long as they were able to do so. Fewer of the older women (only about one in four) expected to be supported by their husbands and/or families during retirement. Perhaps some of the younger women did not yet realize that their husbands' incomes would be (or would continue to be) inadequate to the family's needs in later years, and that they themselves would need to continue working longer than they now supposed. It is also likely that they tended to underestimate their chances of widowhood.

AGE AND WORK PERFORMANCE

It was noted above that no significant relationships were obtained between the work performance ratings and the age groups used for most of our analysis. If this finding could be taken at face value it would be of considerable importance, because it would indicate that at least the immediate supervisors of the older workers in the sample consider them equally valuable to the younger workers. We cannot, however, draw a positive inference to this effect because of the probable dilution of the WEF measure due to differences in rater bias when workers from several companies were considered together.

Another factor which should be considered here is the meaning assigned to "older." Our older groups arbitrarily included workers aged 50 or more. It may be that on the average age does not affect work performance until age 55, or 60, or even 65, but that it does so at more advanced ages. In fact, this would certainly be expected for groups of workers who continue in their employment until they "die in harness."

We found no evidence of such a relationship for the women. The number of older women in the sample was so small, however,

that this can scarcely be considered significant. The situation was different for the older males. Among the men aged 60 or more, the proportion receiving high ratings was substantially smaller than among those less than 60 years old. Just when a significant difference might, on the average, be expected to occur cannot, however, be determined from our data. Average ratings for the male workers showed a slight but consistent increase from each ten-year age group to the next, up to and including the 50 to 59 group. Thus, although the age has not been fixed exactly, our findings suggest that there was no apparent tendency for the average work performance ratings of these workers to decline until approximately the age of 60. Beyond that, a slight but appreciable drop did tend to occur. This does not mean that the workers of 60 or more were seen by their supervisors as deteriorating rapidly in ability to produce. Actually, about a fourth of the workers past 60 received superior ratings (6 or 7 on the WEF scale). When the two basic male age groups were weighted and combined, 36 per cent earned similar ratings. It is also interesting to note that the eight male workers of 76 or more received an average rating of 4.8, which is practically identical with the average for the entire male sample.

It is clear that some workers of 60, 65, and even 70 or more were considered by their immediate superiors to be as useful to their companies as the average or better younger workers. Undoubtedly the men of advanced age in our sample were highly selected. By no means all older men are capable of holding jobs or doing productive work. Probably the average man of 65 or more could not hope to compete with younger men, even if given the opportunity. In fact, in California in 1950 only 29 per cent of the men aged 65 or more were employed, and only 32 per cent were in the labor force. But the age distribution of older men in our sample was almost exactly the same as the age distribution of older manual workers in the California labor force (1950). And in the sample, at least, a significant proportion of workers at any age, even 65 or beyond, appeared to be able to do as well in their jobs as younger men would do, at least in the judgment of their supervisors.

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It is true that further analysis of the data might reveal a somewhat closer relationship between age and work performance than we found, but it is extremely unlikely to disclose a sufficiently close relationship to suggest that all men should be retired at the same age. The older workers who continued in their jobs to advanced ages and continued to earn high work performance ratings gave little evidence in their attitudes toward themselves of succumbing to the suggestive effects of the prevailing stereotypes about older persons. But they were numerically in the minority among all persons of their age. Studies of the labor force status of aged men suggest that those who continue to work beyond the age of 65 are in better health than those who have left the labor force.⁴ They do not shed much light, however, on the extent to which older men may have left the labor force because of a feeling that they were no longer wanted in industry or because of failing confidence in their ability to perform adequately on the job. Some of the older men who report that they left the labor force because of "ill health" may actually be concealing attitudes of discouragement or feelings of rejection.

⁴ Few direct comparisons are available on this point, but several studies have indicated that the great majority of men aged 65 or more who are not in the labor force do not consider themselves well enough to work and have retired because of ill health. See, for example, Peter O. Steiner and Robert Dorfman, *The Economic Status of the Aged* (Berkeley and Los Angeles: University of California Press, 1957), Chapter IV.

CHAPTER X

CONCLUSIONS

Undoubtedly our most interesting and significant findings have to do with attitudes toward retirement. There was a good deal of evidence, both direct and indirect, that the closer these industrial workers came to the age of retirement, the less they welcomed the prospect. In fact, the evidence suggested that many of them may even have tended to repress the whole idea of retirement.

In a job-oriented society, this finding is not altogether surprising. All the values associated with the idea of holding a job—the status of the jobholder, the friendships on the job, the absorption in the work to be accomplished, the sense of achievement, the tendency of our culture to associate work with virtue, and last, but by no means least, the earnings—may well come to mean more to the worker as he approaches the day when he must relinquish them. Quite apart from all the other considerations, the older worker is undoubtedly more acutely aware of the fact that cuts will have to be made in his budget when he is forced to live on a reduced retirement income, whereas the younger worker, looking ahead some twenty to forty years, may well feel that when he “gets *that* old” he will not need as much income. Furthermore, if it is true, as we found, that a substantial proportion of older workers look upon themselves as being younger than their chronological ages would suggest, it is not surprising that

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they consider themselves young enough to continue working for a while, as they approach the age of retirement; younger workers, on the other hand, probably tend to think of those aged 65 or thereabouts as being "pretty old" and hardly able to work any more.

Not only were older workers more likely to have an adverse attitude to the prospect of retirement but they were also more likely to be opposed to a fixed retirement age, and, when asked at what age workers should be retired, to mention a later age. And yet, despite their predominantly negative attitudes toward retirement, more than half of the older workers did not think the worker himself should have a voice in determining retirement policy. In this respect, their views did not differ significantly from those of the younger workers.

Consistent with the hypothesis that there was a tendency for the older workers in our study to repress the whole idea of retirement was the vagueness of their retirement plans. Despite the greater imminence of retirement for these older workers, their retirement plans tended to be no more definite or realistic than those of the younger workers.

Equally interesting, though much more tentative, were some of the findings emerging from analysis of our work performance data. Among the older men, those who looked upon themselves as relatively young tended to receive higher work performance ratings than those who thought of themselves as older. This suggests that self-perception of age (or psychological age) may be an important factor in explaining individual differences in aging, but the finding is inconclusive, because of the lack of certainty that work performance ratings were comparable from one plant to another. So is the highly interesting finding that older men who worked in plants without formal retirement policies tended to receive comparatively high ratings. If this latter finding should be supported by further research, it would constitute an important argument against compulsory retirement policies.

A third set of findings indicated that older workers were more likely to have positive attitudes toward their current jobs and work histories, but tended to be less optimistic about their future prospects than younger workers. These findings are consistent

with those of other studies which have suggested a positive relationship between age and job satisfaction and a tendency for workers to attach greater relative importance to job security as they grow older. Also not unexpected was the finding that older workers were more likely to prefer routine work than younger workers, but perhaps the important point to be stressed here is that among the men a substantial majority, even of the older workers, preferred less routine types of work. Furthermore, there were important sex differences in this respect. About half of the women expressed a liking for routine work, and this tendency was considerably more pronounced among the older women than among the younger women.

In many respects, our findings underscore the dangers of generalizing about the effects of age and aging. Even when significant differences in attitudes were found between younger and older workers, they were often not very pronounced. Individual differences within each age group were obviously of great importance.

In evaluating the results of this study, it is important to bear in mind the limitations of the sample. Many of our findings might also apply to white collar workers, but there is no assurance that they would. A similar investigation of a sample of the entire labor force, which would permit comparisons between white collar workers and manual workers, might turn up some very significant results. It would be interesting to discover, for example, whether the idea of planning for retirement really is a middle class concept, as one writer has suggested.

Even the over-representation of factory workers in our sample of manual workers may have affected some of the results. An older factory worker, with substantial seniority, may well have different attitudes in many respects from an older worker in the building trades, longshoring, or some of the other industries in which jobs are frequently short-term or casual.

Despite these limitations, the results of the study have certain implications for hiring and retirement policies, although further research is clearly needed on the whole question of the interrelationships between chronological, physiological, and psychological aging. Many of our findings suggest the need for a careful reap-

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praisal of rigid age specifications in hiring. The evidence of substantial individual differences in psychological aging, of a positive association between job satisfaction and age, and of an absence of adverse attitudes on the part of industrial workers toward younger or older co-workers tend to cast doubt on some of the arguments used by employers in support of hiring policies that discriminate on the basis of age.

Similarly, many of our findings have implications for retirement policies. If it is true that there are wide individual differences in psychological aging, if many older workers are not only satisfied but satisfactory workers, and if the prospect of retirement is an unpleasant one for a substantial proportion of older workers, then compulsory retirement policies may very well operate against the best interests of workers, employers, and society as a whole. But the case against compulsory retirement would undoubtedly become more convincing if further research should confirm our highly tentative finding that compulsory retirement policies may have adverse effects on productivity.

Undoubtedly one of the strongest arguments used by those employers who support compulsory retirement policies has to do with the difficulty of developing objective criteria for distinguishing between older employees who ought to be retired and those who would be capable of performing their work satisfactorily after passing the conventional retirement age. If it should ever become possible to develop indices of aging, which would provide measures of individual variations in physiological and psychological aging, such indices might conceivably be used in connection with retirement decisions. Although it is clear that our findings are too limited to be used for such a purpose, some of the problems that would be encountered in developing such indices are discussed in the appendix. It is to be hoped that, as we gain a better understanding of the process of aging, the time may come when the development of such indices will be feasible.

APPENDIX A

PERFUSION TEST

A related aspect of the study of the attitudes of industrial workers toward aging and retirement was an attempt to develop a physiological measure of aging. This aspect of the study was carried out under the direction of Dr. Hardin Jones of the Donner Medical Physics Laboratory. A perfusion test had been designed by Dr. Jones as a measure of physiological aging. The test is essentially a measure of the rate of elimination of CO_2 in the expired air following mild exercise. In a previous study the perfusion test had been found to correlate +.75 with age for adults under laboratory conditions.¹ It was hoped that use of the test in this study would facilitate an analysis of the relationships between physiological, chronological, and psychological aging.

If the perfusion test is to provide a satisfactory measure of physiological age as distinct from chronological, it should show, presumably, a low correlation with chronological age over a restricted age range (ten years, for example). At the same time, the test should correlate substantially over the entire range of adulthood.

The perfusion test was administered to the same sample of workers used in our study of attitudes. For purposes of analysis, the results were dichotomized at the median, separately for the two sexes. If there was no relationship between the perfusion test score and chronological age, the scores above and below the median should have been distributed equally, within chance limits, in the older and younger groups of workers and for each sex. The obtained and theoretically expected distributions are compared in Table A-1. The results are well within

¹ William E. Berg, "Individual Differences in Respiratory Gas Exchange During Recovery from Mild Exercise," *American Journal of Physiology*, 149 (1947), 597-609.

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the range of chance variation. There was some tendency for a low score on the test to be present in the older female group.

The correlations between age in decade and perfusion test score in quartile of the sample distributed by sex and corrected for broad categories ranged from $-.20$ for the older female group to $.04$ for the younger male group. For the two male groups combined, $r = +.08$; for the two female groups combined, $r = -.08$. None of these correlations was significant except the one for the combined male groups which was twice its standard error.

TABLE A-1
RELATIONSHIP OF ACTUAL AND THEORETICAL RESULTS OF
PERFUSION TEST TO CHRONOLOGICAL AGE

Perfusion test results	Men		Women	
	Actual results	Theoretical results*	Actual results	Theoretical results*
Younger group				
Below median.....	52%	50%	45%	50%
Above median.....	48	50	55	50
Total.....	100%	100%	100%	100%
Number of cases.....	329	329	156	156
Older group				
Below median.....	47%	50%	60%	50%
Above median.....	53	50	40	50
Total.....	100%	100%	100%	100%
Number of cases.....	287	287	73	73

* The theoretical results would obtain if the scores were distributed equally above and below the median; that is, if there were no correlation between the test results and chronological age.

We have noted that under laboratory conditions in a previous study the perfusion test correlated $+.75$ with chronological age for a group of subjects of approximately the same age range as our combined groups. Why a similar correlation did not appear in this study is not entirely clear. The explanation may lie in the greater difficulty of controlling conditions in a field situation.

Insofar as we have been able to study the perfusion test data in relation to other variables of the study, the positive findings can best be described as meager. This is undoubtedly to be expected in view of the low correlations obtained between the perfusion test and chronological age. Whether or not further refinement of the test or improved

control of the conditions of its administration would substantially raise the correlation with age is not certain. The high correlation previously obtained under laboratory conditions suggests that it might. Relationships with other variables might then emerge which were not found in this study. Further research is needed before we can decide on the utility of the perfusion test as a measure of physiological age.

APPENDIX B

INDICES OF AGING

If it should be established that a fixed retirement age for workers would result in a loss of considerable productive potential on the part of older persons, the question of a feasible alternative would arise.

Any alternative that faces the issue directly requires that judgments be made periodically whether individual older workers should continue working or should be retired. To leave the matter entirely to the worker himself is obviously disadvantageous to the company; for the company to step in at any time and retire a worker without warning is obviously disadvantageous to the workers. In general, more complicated systems tend to be expensive, time consuming, and administratively difficult.

One basic difficulty in finding a feasible alternative to compulsory retirement at a fixed age arises because no simple, easily applied and otherwise satisfactory method has been found for determining the optimal retirement age for each individual worker. This difficulty has led to interest in the concept of *indices of aging* as a possible method of overcoming the deficiency. Such indices would be based on recognition of the fact that different individuals age at different rates (the fact that there is less than perfect correlation between *age and aging*). One person of 65 might, for example, have a "physiological age" or a "psychological age" equal to that of the average person of 55, while another's indices might show him to be the physiological or psychological equivalent of the average person of 75. Retirement ages for different individuals might then be adjusted to their age indices rather than fixed at some common chronological age. It is argued that the use of these indices would provide a rational, simple, and objective

basis for determining retirement age, rather than the arbitrary, unwieldy, and/or subjective bases available now.

There is no assurance that the development of indices of aging which would serve the purpose satisfactorily is possible at present. Certainly many difficulties would be encountered in their development and in their application. But the idea is an intriguing one, and development along some such lines seems a likely eventuality for the future. Let us inquire briefly into some of the characteristics which these indices must have if they are to be useful in industry.

First, such an index should be correlated, but not perfectly correlated, with chronological age over the range in which it would be used.

Another and very essential characteristic is validity for the purpose for which it is used. This purpose must not be too broad, or satisfactory validity for the measure could never be obtained. Thus, it is beyond reason to hope that such an index could properly be used, alone, to determine when an individual "should" retire. The "should", properly speaking, covers a variety of factors to some of which an index of aging would bear no relationship. Perhaps the most that could be expected of such an index would be that it should contribute to the determination of the likelihood that a worker's productive potential or value to the company would be maintained (or would not decrease below a certain level) over a given period of time. If the index had no validity for this purpose, its practical usefulness would be dubious.

It will be noted that this purpose necessitates that the index bear some relationship to the worker's productive ability or value to the company. This implies at least that the index be correlated with work performance, and ideally it should be correlated also with the less tangible factors involved in usefulness to the company such as the worker's adaptability, his influence upon his co-workers, and the like. This requisite immediately entails problems of its own. The difficulties of obtaining adequate measures of work performance are well known. Merit ratings would constitute perhaps the best criterion for work performance or value to the company, but the validity of merit ratings for aging workers would have to be established. The index could not be expected to correlate equally well with the criterion for all kinds of work. It is possible that a different index would have to be worked out for different jobs or job families.

Another requisite characteristic is implied in the purpose stated above. That is predictive validity. In order for the index to be useful, it must be related to work performance not only now, but "over a given period of time." A year would seem to be a reasonable minimum expectancy for this predictive validity to hold, although a longer period would be better. The only way in which predictive validity could be assured would be to construct an experimental index, administer it to

a group of workers, and then validate it at the end of a year or more in terms of the criterion behavior which had occurred. If the resulting validity was not satisfactory, the index might be modified and the process repeated.

In the present study the perfusion test was included to gain preliminary information concerning its possible usefulness as an index of physiological aging. We could not hope to prove that it could properly be used, because such proof would require not only the demonstration of correlations between the perfusion test and both age and work performance, but demonstration also of its value for predicting the maintenance of strength, stamina and skill, over a period of time. Unfortunately, under the conditions here, it failed to meet even the basic criterion of correlation with age.

This study could not, by its nature, be expected to produce an index of psychological aging. It may, however, be worthwhile to inquire what may be inferred concerning the feasibility of such an index.

Presumably an older person who is "psychologically young" will show some attitudes and behavior which tend to characterize younger people. Deeply imbedded self-attitudes might well be of primary importance, but differential reactions to the external world must also be present if the concept of psychological aging is to be meaningful. In the search for material to constitute an index, in the results of the present study we look first at those attitudes or responses which differentiate between the older and younger workers. In general, we should search for a cluster of attitudes typical of younger men all or most of which are shown by some individuals in the older group. These individuals would presumably make up a subgroup of "psychologically younger" older men.

One attitude item among those which have been investigated here stands out as meeting the criteria for an index item. It is the descriptive self age rating. It is correlated with both age and WEF rating. And it makes sense. Those older men who rate themselves as middle-aged or younger are probably, in part, the "psychologically younger" men among the older workers.¹

But one item does not make a scale or an index. What of the "cluster" of items referred to above? No such cluster of items, all related to age, to work performance, and to each other, is found. This may be largely due to the attenuated character of the work performance measure used. There is a small number of items which correlate with age and also with the descriptive age rating in the older male group. Most notably, attitudes toward different kinds of work, belief that one

¹ In any attempt to construct an actual index, the form of the item would undoubtedly require change. Probably it is the tendency to think of oneself as younger than one's chronological peers that is important, and this could probably be measured more effectively than we have done it.

could get another job as good or better, and the descriptive self age rating all correlate with age and with one another. There is a trend also for attitudes toward different kinds of work to show a relationship with WEF ratings. Thus, along with rating oneself as relatively young, a preference for work involving new learning and a dislike for routine,² as well as a positive attitude toward ability to get another job, may typify the psychologically younger older worker.

One item which is related to age and probably to work performance, and which goes along with the others psychologically, is a general expectation for things to get better in the future. Others (related at least to age) are attitudes toward whether or not the worker's age affects the way his boss treats him, and whether younger or older workers are likely to do better in the worker's kind of job.

The worker's general attitude toward working, and in particular his desire to continue working, would appear to be important desiderata in determining whether he should be retired at any given time. It would be necessary, of course to take into consideration those instances in which workers want to retire to go into business for themselves.

How does this factor of wanting to continue working fit into our concept of an index of psychological aging? We have noted in our findings that in general the closer workers approach retirement age the stronger becomes the desire to continue working. This factor, then, is positively rather than negatively correlated with age, in contrast to the items suggested previously for the index.

This suggests that the index might be expanded to become not an index of psychological aging as such, but an overall "retirement index." It might be useful to include a number of factors which are not necessarily related to age at all. Personality factors bearing on the worker's relationships with his co-workers might be a case in point. Or, more concretely, his ability to train new employees might be important.

Still more useful, and perhaps more practicable, than such an expanded index may be a "retirement profile," consisting of a set of separate but quantified and normatively interpretable measures of relevant factors from a variety of sources. Among these measures an index of psychological aging might find a place, as might measures of other psychological factors. A measure of physiological aging might also be included, possibly plus other physical and physiological indices. Work performance data or ratings might well constitute another variable. Some codification of work history (including absenteeism, safety record, etc.) could be included. The worker's own desire to continue in his job or to retire would certainly constitute an important factor in the profile.

² This item would undoubtedly contribute differently for different kinds of work.

INDICES OF AGING

Construction of such a set of measures is far from easy. Several years of intensive work would probably be required to produce useful results. At present the predictive validity for continued success on the job is known for none of the factors suggested. This would surely vary from job to job, and differential weights would be required for different kinds of work.

Something of the sort, however, may well be brought about in the future. An objective and reasonably valid method for determining the optimal retirement age for an individual worker, which will take into consideration the interests of both the company and the worker, is badly needed. A "retirement profile," properly developed, would not only serve this purpose, but could be made flexible enough in its use to protect the overall interests of society in general under changing conditions of the labor market. With some modification the profile might also serve the extremely useful purpose of evaluating for re-employment older workers who had been previously retired under an arbitrary fixed retirement policy.

APPENDIX C

PROCEDURES

I. TYPES OF DATA OBTAINED

An effort was made to obtain each item of information indicated below for each worker (or each plant) in the sample. In practice, however, this was not always achieved. In general, cooperation on the part of participating companies was very good, but supplementary information suffered some attrition through failure of company officials to supply it. The most serious deficiency in the information collected was attributable to the fact that objective individual productivity data simply did not exist in the majority of participating plants; and indeed it is impossible to see how they could be obtained for many of the kinds of work involved. In a few instances the interview with the workers could not be completed in the time available, so that responses to some of the interview items are missing. Such factors of attrition as these have left some gaps in the data, but so far as we have been able to determine they have not been of a kind likely to produce serious distortions in the results.

Data Obtained Directly from Workers

1. *The Interview*.—This was a 90 minute standardized open-end interview conducted by trained interviewers using a schedule which contained 52 main questions and a large number of contingent questions and probes. The schedule is reproduced in Appendix D.

The content may be classified into the following areas of inquiry:

- a. Identifying and classifying information. (Questions 1 – 5)
- b. Personal and occupational history, and attitudes toward the past. (6 – 10.02, 31 – 33.1)

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- c. Activities outside the plant.
 - (1) Acquaintance with retired persons (20 – 23.021)
 - (2) Spare time activities (21 – 23.021)
- d. Attitudes toward job and work.
 - (1) Toward job (11 – 12.1, 36 – 36.1)
 - (2) Toward work (30 – 30.0222, 49 – 51.1)
- e. Attitudes toward age and aging.
 - (1) General (46 – 48)
 - (2) In relation to the kind of work which the worker does (35 – 35.2, 37 – 39.01 – Y)
 - (3) The worker's perception of his own age (40 – 45)
- f. Attitudes toward the future and retirement.
 - (1) The worker's general expectation for the future (13 – 17.21, 34 – 34.02)
 - (2) The worker's plans for and attitudes toward his retirement (18 – 19.021, 24 – 25.021)
 - (3) Retirement, general (26 – 29.2)

The interview form was pretested in June 1952, on a sample of 40 male workers for a telephone company and a sample of 24 female workers in a plant manufacturing electric light bulbs. Following the pretest a few questions were modified and a few more added.

The interviewers were all previously experienced, and some were professional interviewers. Each had six hours of special instruction in the conduct of this interview schedule, following which he conducted two practice interviews and then had one to two hours more instruction.

The interview and the perfusion test were given together in the plants where the workers were employed, during regular working hours.¹

The interviews were conducted from two to eight at one time by a crew of interviewers. Responses were recorded verbatim by the interviewers and later transcribed onto 5 × 8 cards in specified question blocks for convenience in coding. Two hours were allowed with each worker for the interview and the perfusion test.

All main sample interviews were obtained between July 1952, and February, 1954.

2. Perfusion Test.—This test has been described in Appendix A. A single administration of the test requires ten to fifteen minutes. It was administered twice (in immediate succession) to some workers; this required 15 to 20 minutes.

¹ An attempt was made in one company to interview the workers on their own time after working hours, but only a small proportion of the workers appeared at the proper time and this procedure was not tried again.

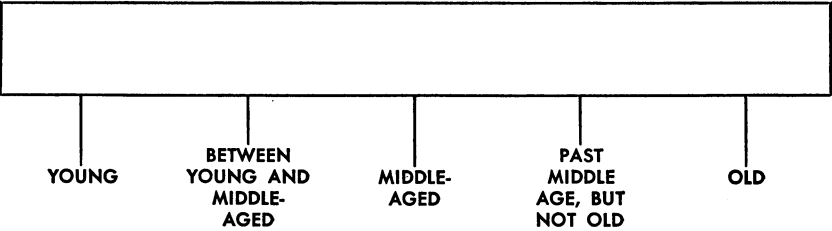
Data Obtained From Immediate Supervisors of Workers

1. *Worker's Evaluation Form.*—This form was to be filled out by the immediate supervisor of each worker to provide an evaluation of the worker's performance in his job and his overall value to the company.

It consists of (a) a set of 50 triads of scaled descriptive statements, (b) an adjective check list of 34 items, and (c) a rating of the worker's overall value to the company on a seven step scale.

The triads were constructed by selecting statements in sets of three from among a list of 540 statements previously scaled by Urbrock.² Each triad consists of three descriptive statements about one aspect of behavior or work. One statement was drawn from the upper part of the range (favorably descriptive), one from the middle (neutral), and one from the lower (unfavorable) for each triad. The supervisor checked one statement in each item as most nearly applicable to the worker being rated. In a few instances it was necessary to construct new intermediate statements to complete the item. The triads were classified (a priori) into a number of categories (physical abilities, skill, motivation, dependability, adaptability, efficiency, relations with co-workers, etc.) in the attempt to cover relevant areas of inquiry.

2. *Age Scale.*—An "age scale" on which the supervisor indicated the position to which he would assign each worker under him, as follows:



This scale was also used to obtain several age ratings from the workers themselves, as part of the interview, and was included here for comparative purposes.

Data Obtained From Company Personnel and Company Records

1. *General*

- a. Whether or not the company has a retirement policy and/or pension system, with accompanying details.
- b. Whether or not the employees interviewed are members of a union, and if so, a rating of the strength of the union.

² See Richard S. Urbrock, "Standardization of 724 Rating Scale Statements," *Personnel Psychology*, 3 (1950), 285-316.

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- c. The total number of employees in the plant in jobs similar to those of the workers interviewed who were eligible to become members of the sample.
- d. The mode of enlistment employed in the plant—i.e., the method by which the sample members were selected.
- e. Whether or not the company keeps any work performance or productivity records, including company ratings, on the employees interviewed; and, if so, the details of the system used.
- f. A list of former employees in the same job classifications as the workers interviewed, who had been separated from the company within the past 5 years. The purpose of this was to provide a reservoir of retired workers for selection of the retired sample and to permit study of the reasons for separations as related to age. Most companies, however, found it impossible to produce this information.

2. *Data Relating to the Individual Workers in the Sample*

- a. Job title.
- b. Length of time employed by the company.
- c. Length of time in present job.
- d. Job history with company—transfers, changes in job classification, increases and decreases in pay, etc., with reasons.
- e. Rate of pay in present job.
- f. Time lost from work within the past year, with reasons.
- g. Individual work performance data, productivity records, or company ratings, where available.

II. THE SAMPLING

1. *Solicitation of Cooperating Companies.* It was initially decided to aim for a sample of 1,000 male English-speaking workers at non-supervisory levels, employed in industrial plants within commuting distance of San Francisco, and meeting the following criteria:

1. The minimum number of workers in a single job classification acceptable from any given plant would be 20.
2. Only privately owned and operated plants, and non-seasonal industries, were to be included.
3. Objective measures of the individual workers' work performance must be available.

These were not set up at the time as rigid specifications for exclusion of potential subjects from the sample, but were recognized as desiderata to be achieved if possible.

After considerable difficulty in obtaining the desired cooperation from a sufficient number of firms in the San Francisco area, plans for

soliciting cooperation were recast. Changes included the following:

1. The Los Angeles area was included, thereby making many more large firms available for solicitation and expanding the lists of contacts which could be made through personal acquaintance with the help of Los Angeles manufacturers' associations and the staff of the Institute of Industrial Relations at U. C. L. A.

2. A descriptive statement of the project was prepared and sent broadside together with a covering letter to a large number of companies in the San Francisco and Los Angeles areas inviting them to participate in the study.

3. Specifications for inclusion in the sample were established as follows:

- a. Only males were to be accepted. This policy resulted from the fact that up to this point the great majority of workers obtained for the sample were females. It was imperative that the bulk of the sample be composed of males to permit adequate study of retirement problems.
- b. The minimum number of workers acceptable in a group was to be 15, in the same or closely similar job classifications.
- c. A proportion of government workers would be accepted (82 were included finally).
- d. A minimum of 10 per cent, but preferably 50 per cent of the workers in each group were required to be 50 years of age or older. It was intended from the outset that employees of all ages would be included, but up to this time the proportion of older workers had not been large enough (about 25 per cent among the males) to promise an ultimate group of satisfactory size.
- e. It was obviously hopeless to expect objective individual productivity data from any but a fraction of the cooperating companies. Fortunately the Workers Evaluation Form had been in use from the outset, and a preliminary analysis of the returns from one company with good production records showed promising validity for it as a measure of work performance. Availability of company records of productivity was not made a criterion for inclusion; nevertheless an attempt continued to be made to obtain objective production records or regular company ratings wherever possible.

It is interesting to note that, of the 27 firms which finally agreed to participate in the study, 21 had been contacted, initially, through personal references, while only 6 agreed to cooperate as a result of the broadside letters which were mailed to a substantial number of firms. The interviews were conducted in 1952 to 1954.

2. *Enlistment.* Enlistment refers to the selection of workers within a plant from among those who have been determined eligible to be-

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come members of the sample. "Eligible" workers included all non-supervisory employees in the departments or job classifications, and on the shifts from which the sample for the plant was to be drawn. Enlistment was an important part of the sampling process, and several considerations arise in connection with it.

Company officials were, necessarily, responsible for deciding how many workers in the plant would be invited to participate. They also selected the departments and job classifications which were to be considered eligible, usually after discussing the matter in some detail with a project staff member. It was intended from the start, and emphasized in explaining procedures to company officials, that serving as a subject in the study was to be voluntary on the part of each individual worker. Because of differing conditions from plant to plant, it was necessary to permit the company some choice also in the way in which the workers were approached and enlistment carried out. It was therefore desirable to structure the enlistment procedures in such a way that 1) a choice of method was offered, 2) individual participation would always be voluntary, and 3) the project staff could learn just what was done in each plant. To this end, detailed instructions and recommendations were given in writing and orally to the responsible company officials, and they were later asked to fill out a questionnaire concerning procedures followed.³ A descriptive notice was prepared which was to be called to the attention of each eligible worker.

Two modes of enlistment were recommended in the instructional materials. In one of these (the "group" method) the company official was to describe the project to the eligible workers in a group, and invite them to volunteer individually. Volunteers would then be accepted in order until the quota was filled; although if the desired proportions of older and younger workers were not being met as enlistment proceeded (15-50 per cent workers aged 50 or more), further volunteers in one age group might be rejected while those in the other were still being accepted. This method had the advantage of insuring that all participation was voluntary in fact,⁴ but it gave no information about those who did not volunteer and thus about how representative those who participated might be of the entire group of eligibles. Also it was not always practicable to assemble the eligible workers into a single group (or even two or three groups) for the explanation and invitation.

In the other method (the "individual" method) the eligible workers were contacted individually by the enlisting employee. The project

³ The questionnaire failed to produce satisfactory returns in a number of instances, and much of our information about the way in which enlistment was carried out was obtained at the time of the interview from the workers themselves.

⁴ Since any pressure exerted on the group as a whole would be sure to come to light at the time of the interview.

was explained⁵ to the worker and he was then asked to participate. If the worker refused, he was asked why, and his reasons were (later) recorded by the enlisting official. This method thus yielded information about refusals, but it tended to obscure the extent to which agreement to participate was truly voluntary.

It is not surprising that instances occurred in which these instructions were not fully carried out. In one instance, for example, the company official in charge of enlistment forgot to carry out his advance assignment. When he was rather forcibly reminded of his duty by the arrival at the plant of eight interviewers, two perfusion test crewmen, and a supervisor, he hurriedly went out into the plant and arbitrarily designated a number of workers to serve as subjects. In another instance the responsible personnel officer delegated enlistment to the heads of the departments involved without adequately briefing them. Actually, workers in eleven plants were "enlisted" by their superiors under some degree of pressure; in thirteen plants participation was entirely voluntary; in the remaining three this point could not be determined with certainty.

Pressure is considered to have been applied wherever "volunteering" to participate was made to appear as something the company or the enlisting official wanted the workers to do, rather than as something they were being invited to do with the company's permission and approval. In most instances the pressure to participate was relatively slight, and in no case was participation made absolutely mandatory. In fact, it was in precisely those plants where the pressure was greatest that the largest number of individual refusals occurred.

In all, roughly 25 individual refusals were reported from enlisting officials in the 24 plants from which enlistment information could be obtained; and in one plant an entire shop refused *en masse*.

Several devices have been employed to estimate the possible effects of enlistment pressure upon the interview responses. These are discussed below. The distributions of workers by mode of enlistment is given in Table C-10.

III. WORK PERFORMANCE DATA

Productivity data in terms of the ratio of actual to standard production rates were obtained for 36 men of the 616 in the sample, and for 55 women of the 230 in the sample. The 36 men worked in three different plants, the women in two. The largest group of men in one plant and in comparable jobs was 24, for the women it was 30. Wage differentials based on incentive pay were available for 29 men from one

⁵ "Description" or "explanation" of the project presumably did not include specific reference to age or retirement. Instructions were to present the project as a study being carried out to investigate "some of the problems of industrial workers."

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plant and 22 from another, and for a group of 49 women from one plant.

This practically exhausts the objective individual productivity records which promised to yield any usable—to say nothing of useful—information. Promotions and other job changes, as well as wage differentials based on job classification, were recorded for nearly all of the plants, but these were affected so much by seniority rulings and other factors that they were useless as indicators of work performance, of efficiency, or of overall value to the company.

Even though objective production data for the most part did not exist, a number of companies employed a system of periodic merit ratings. These ratings were collected for 270 of the male workers, from 10 plants, and 78 female workers in two plants. Four of the male groups and both of the female groups contained more than 30 individual members each.

It is not our intention to enter the controversy over the relative merits of objective productivity data and of supervisor's ratings in evaluating a worker's worth to the company. For many kinds of work objective indices are impossible to obtain, of course; and even for many of those in which they can be obtained arguments may be advanced that a good rating system will provide a better measure of work performance.

It was recognized at the outset of the project that some companies would not have any work performance information which would be useful to us, and the desirability of having some uniform measure of the worker's overall value to the company which could be obtained for all members of the sample was apparent. Hence the Worker's Evaluation Form was constructed to be filled out by each worker's immediate supervisor.

The overall rating from this evaluation form is the only measure of work performance which we have attempted to use in the analyses carried out thus far. Because return of the completed forms from a number of companies was considerably delayed, with one exception it has not yet been possible to determine how this rating (or the other parts of the WEF) related to the obtained productivity data and company ratings.

In the one exception a preliminary analysis was made between actual-to-standard production records and WEF data for 30 punch press operators from one plant. The correlation between productivity and the WEF overall rating was .80—an unexpectedly and perhaps fortuitously close relationship. When the 30 cases were dichotomized on both productivity and score for each of the 50 triads, and the resulting 2×2 tables were then tested for independence by the X^2 criterion (with Yates' correction), 14 items were found to evidence a significant relationship to the productivity measure (eight of them at a significance level $P < .001$).

This is encouraging, but there is no reason to suppose, of course, that the WEF is equally valid, nor even equally reliable,* for different kinds of workers or in the hands of different supervisors. As one would expect, the number of high ratings on the overall scale varied widely from plant to plant. For the sample as a whole, 36 per cent of the ratings fell into the two highest categories (6-7), 64 per cent in the remainder (1-5). The range of high ratings varied, however, from 9 per cent for a group of 47 female egg candlers to 77 per cent for a group of 13 machinists in one plant who were described by the personnel officer as "the top men in the plant." Sixty-nine per cent of the total sample fell into groups in which the percentage of high ratings was between 20 and 50 per cent.

To what extent this variation from plant to plant reflected real differences in efficiency and value of the workers in these plants, or to what extent they were due to differences between "hard" and "easy" raters, is not certain. The fact that no significant relationship was found between the rating and occupational level suggests that differences in raters may contribute the greater part of the inter-plant variance in rating. If so, then relationships with other variables might become more apparent if this factor were statistically controlled.

Total or part scores on the 50 triad items may be more closely related to productivity data and other variables than is the overall rating. Or it may be that an item analysis of the triads would disclose that different clusters of items are related to productivity in different plants or different kinds of work.

Selected factual and interview variables should also be correlated directly with productivity data and company ratings for different plants separately, where the number of cases would justify the operation.

There has been no opportunity as yet, however, to carry out these analyses; in consequence the results involving work performance which are reported at this time can be considered preliminary at best.

IV. CODING

Since the results of a survey using open-end interview material may be readily distorted by the manner in which the raw data are prepared for analysis and presentation, the coding principles employed in the present study will be briefly described.

1. All codes were constructed after completion of the bulk of the interviewing by classification of obtained responses. A coding sample of 100 interview records was drawn, selected to include representation of all age, sex, and occupational groups and all plants visited up to that time. Codes were then constructed on the basis

* In only one instance, for a sample of 37 maintenance craftsmen, has it been possible to obtain WEFs filled out independently by two supervisors well acquainted with the work of all men in the group; and these data have not yet been processed.

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of the 100 responses to each question or question unit. Additional categories were added later as needed. The code classes were thus empirically determined, and based upon categories into which the responses tended to fall naturally rather than upon categories into which the staff thought *a priori* that they should fall.

2. For the most part, responses were initially classified into finer categories than those in which they were ultimately to be reported. This procedure has several advantages over initial broad categorization; most importantly, a much clearer conceptualization of the kinds of responses (and their relative frequencies) which are included in a broad category can be gained when this category is made up by combining several finer ones than when no finer units of classification are used; further, the final categories in which the results are reported are not fixed in advance but can be made up by combining the code categories in ways which the data themselves make most meaningful.

3. The reliability of the coding was thoroughly checked. At least two coders participated in the use of each code. Once at the beginning of the application of each code, once in the middle, and once toward the end, a sample of twenty-five interviews was coded by all the coders using the code. Any disagreements were discussed with the coding supervisor until a common understanding of the code categories was reached, after which necessary corrections were applied to the records coded previously.

4. Responses including elements falling into two or more separate categories of a code were recorded separately into new "combination categories" to insure the recoverability of each element in the analysis.

5. Liberal use of "other" categories was made. These were periodically reviewed by the supervisor for groups of similar responses which, when found, were recoded into new categories.

V. STATISTICAL ANALYSIS AND INTERPRETATION

The variables which have been analyzed at least partially to date, in addition to age and sex, include the following: 8 variables descriptive of the plants or the workers in the sample (e.g., retirement policy of plant, presence or absence of union, worker's occupation, time lost from work, etc.), with the plant as source of information; 2 ratings of workers made by their immediate supervisors; a measure of performance on the perfusion test; and 52 variables from the workers' interview. These last include 8 factual data items, 43 attitude variables, and the interviewer's rating of the adequacy of the interview; they represent a selection from a total of 26 factual and 103 attitude variables which have been coded from the interview. This selection has been made on the basis of the general interest or importance of the variable considered.

For the purpose of this analysis, the main sample of workers has been divided into four groups as follows:

<i>Group</i>	<i>Composition</i>	<i>No. of Cases</i>
Younger men	Men less than 50 years of age	329
Older men	Men 50 or more years of age	287
Younger women	Women less than 50 years of age	157
Older women	Women 50 or more years of age	73

For the most part, the data have been analyzed for the four groups separately. Intergroup comparisons, when made, usually include the following: a) Comparisons of younger men with older men, and of younger women with older women, to investigate the relationships between age and other variables; and b) comparisons of all men (younger men plus older men, weighted and combined) with all women (similarly combined) to gain information on similarities and differences between the sexes. Cross-comparisons are also reported between selected attitude variables and occupation, perfusion test data, retirement policy of the plant, and a measure of the worker's overall value to the company. Finally, some of the attitude variables have been related to one another.

Practically all of the variables have been reduced to dichotomies for the present analysis. This has undoubtedly reduced the richness of the findings, and in some instances may have obscured relationships which would show up under more extended analysis. It is very unlikely, however, that treatment in finer classes would materially change the broad outlines of the findings reported. And dichotomization has two advantages over other treatments: a) it permits a more rapid survey and readier evaluation of a large number of variables, and b) it deals with category frequencies and/or percentages of maximal stability.

In view of the non-probability character of the sample of workers, statistical tests of significance are of dubious value in interpreting the data of this study. It is entirely possible that any "significant" relationships found might be due to uncontrolled factors of bias in the selection of cases. Some attempt has been made to identify such possible selective factors, but the attempt has been far from exhaustive and such factors, when found, have thus far merely been noted rather than statistically controlled in further analysis.

Many of the quantitative distributions would require normalization in any more refined statistical treatment. Certainly the age distributions of the four basic groups, as well as a number of others, are skewed.

Despite the above considerations, the use of some statistical measure of significance seems desirable to help in establishing a frame of reference for interpreting the data of the study. It can at least give

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us some idea of the order of magnitude of the differences between two distributions which may be expected if the variables are not independent. Correlation and variance analysis of some of the materials are highly desirable, but it has not been feasible to carry them out to date.

X^2 has been chosen as probably the best available statistic for our purpose in the present study. The great majority of its applications here are in 2×2 contingency tables, although in a few instances it has been computed for $2 \times k$ tables.⁷ The X^{2*} themselves are not reported, but when a difference between two distributions is characterized as "significant" in our report, this should be interpreted to mean that significance is indicated at the .045 probability level. In other words, the probability is less than .045 that the observed difference is attributable to random errors.⁸

Let us emphasize that the pattern of "significances" found in the results can supplement and perhaps guide common sense, but cannot substitute for it in interpreting the findings of the study. After all, concluding that an obtained difference between frequencies which shows a probability of only .043 of having occurred as the result of random errors as "significant," while considering another difference with a corresponding probability of .046 as "insignificant" is clearly ridiculous if one's concept of significance is not extremely flexible. Interpretation of the findings in the form they are presented in this report requires attention not only to the significances indicated but to the direction and magnitudes of the percentage differences shown—plus the comparable figures for other groups or other comparisons involving the same variables.

It should also be remembered that generalization of findings to manual workers not included in the sample is not demonstrably appropriate, and in all probability our sample is not sufficiently representative of manual workers as a whole to expect our findings to be closely descriptive of the population. The findings nevertheless show that certain attitudes and relationships do exist in some manual workers. And we believe it reasonable—at least until better evidence to the contrary is offered—to assign a fairly high probability to the likelihood that the same tendencies characterize manual workers in general, at least in manufacturing establishments, from which this sample is chiefly drawn.

⁷ Yates' correction has been applied to all computations from 2×2 tables.

⁸ Except in borderline instances, X^{2*} for the 2×2 tables have not actually been computed, but their significance at the .045 level has been determined by reference to prepared charts indicating critical values of $ad - bc$ for the given number of cases and marginal totals. The nature of the charts is responsible for the use of the .045 rather than the .05 level.

TABLE C-1
CLASSIFICATION OF PLANTS AND WORKERS IN THE SAMPLE BY TYPE OF INDUSTRY

Type of industry	Number of plants	Male workers		Female workers		All workers	
		Number	Per cent	Number	Per cent	Number	Per cent
Manufacturing, total.....	23	498	81	190	83	688	81
Manufacturing, durable goods.....	11	296	48	25	11	321	38
Steel fabrication.....	2	49	8	..	..	49	6
Cement production.....	2	57	9	..	..	57	7
Power transmission machinery.....	1	13	2	..	..	13	1
Garbage disposal units.....	1	46	7	..	..	46	5
Builders' hardware.....	1	44	7	..	..	44	5
Furniture.....	1	22	4	..	..	22	3
Radios, television.....	1	35	6	..	..	35	4
Calculating machines.....	1	6	1	25	11	31	4
Control instruments.....	1	24	4	..	..	24	3
Manufacturing, nondurable goods.....	12	202	33	165	72	367	43
Petroleum products.....	3	61	10	..	..	61	7
Synthetic rubber.....	1	45	7	..	..	45	5
Clothing.....	1	..	..	48	21	48	6
Pharmaceuticals.....	1	3	1	38	17	41	5
Food products:							
Milk and dairy.....	2	23	4	..	..	23	3
Poultry and eggs.....	1	..	..	49	21	49	6
Meat.....	1	..	..	30	13	30	3
Canned goods (baby foods).....	1	52	8	..	..	52	6
Coffee and spices.....	1	18	3	..	..	18	2
Trade.....	2	22	4	40	17	62	7
Wholesale (grocers).....	1	13	2	..	..	13	1
Retail (department stores).....	1	9	2	40	17	49	6
Transportation (Naval Supply Depot).....	1	82	13	..	..	82	10
Insurance.....	1	14	2	..	..	14	2
Total.....	27	616	100	230	100	846	100

VI. CHARACTERISTICS OF THE WORKERS

Although the characteristics of the workers in the sample were described briefly in Chapter II, they are discussed more fully here.

1. *Industrial Distribution.*—Twenty-six private companies and one Naval Supply Center took part in the study, providing from 8 to 82 workers each. Table C-1 presents a classification of the plants and workers by type of industry. The 27 participating companies were obviously not representative of West Coast industry. Manufacturing industries, with 23 of the 27 companies, were oversampled. Among these 23 the manufacture of durable goods and of nondurable goods were about equally represented, and a reasonably varied if not representative sample of manufacturing industries was found. Actually, our interest had centered on factory workers from the beginning, and no special effort was made to balance the sample with workers from other industry groups.

Table C-1 indicates that more than four-fifths of the workers were drawn from industries engaged in manufacturing. The total sample of workers was divided about equally between the manufacture of durable and nondurable goods, but, as might have been expected, male workers predominated in the manufacture of durable goods while the great majority of female workers came from plants producing nondurable goods. In fact, no women at all were obtained from plants engaged in what might be considered "heavy industry."

One hundred eighteen (19 per cent) of the men in the sample were drawn from nonmanufacturing industries. Of these 79 were maintenance craftsmen, warehousemen, and laborers comparable with the bulk of the sample in occupation and job classification. The remaining 39 men included two small groups made up of (1) sales clerks in a department store, (2) clerks, watchmen, and janitors from an insurance company, and (3) scattered clerical and service workers.

Only one group of women was obtained from a nonmanufacturing industry. This group, consisting of 40 sales clerks in a department store, was the only sizable group deviant in occupation from the sample as a whole.

2. *Occupational Distribution.*—All workers in the sample were classified as skilled, semiskilled, or unskilled except for 40 women and 39 men in clerical, sales, or miscellaneous occupations mentioned above. These exceptions have been excluded from analyses involving occupational level.

In addition to the occupational comparisons presented in Table C-2 and discussed in Chapter II, we were interested in the relationship between age and skill level, both for the sample and for the population of employed manual workers in California. The comparison could be

made only for men, since there were too few women in skilled or unskilled categories to justify such an analysis. Although there were differences between the sample and the population, there was a pronounced tendency in both instances for the proportion of workers in the higher skill categories to rise with advancing age (see Table C-3). The possibility is also suggested by these figures that workers who have achieved skilled status maintain their level throughout their careers, whereas semiskilled workers may be subject to relatively more downgrading as they grow older.

3. *Employment Status of Spouse.*—When the interview schedule had already been in use for some time (and after the majority of the female workers in the sample had already been interviewed), a question was added inquiring about the employment status of the worker's spouse. If the spouse was reported as not working at the time of the interview, further questions were asked concerning the spouse's intentions and expectations with regard to working in the future. A summary of the responses of the male workers is given in Table C-4.

The majority of workers in both the younger and older groups reported that their wives were not working at the time and did not expect to work in the future. The proportion of these, as might be expected, was higher for the older group. In the great majority of instances the decision not to work had apparently been a matter of choice and not incapacity on the part of the wife or fear of being unable to find a job; and in the vast majority also the husband seemed to concur with the decision and oftentimes felt (how correctly we do not know) that he had been primarily responsible for making it.

A small number of men in both groups reported that their wives were currently not working, but expected to seek employment at a later date. The percentage of these was somewhat higher in the younger group, probably reflecting in part the tendency for young women to drop out of the labor market for a few years at most while having and raising children.

Thirty per cent of the younger men and 24 per cent of the older indicated that their wives were employed at the time, and in most instances this employment was viewed as more or less permanent. Seven-eighths of these wives were working full time in the younger, three-fourths in the older group.

Since these questions were asked of only 65 women in the younger female group and 15 in the older female group, the data do not yield much information. It is interesting to note, however, that among these women, only two reported that they had spouses who were not working, and these were both older women whose husbands were invalidated or disabled. And only two, also older women, stated that their husbands were working part time.

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4. *Length of Time with Present Employer.*—Question 9 of the interview is, *how long have you been working for this company?* Table C-5 summarizes the responses.

TABLE C-2
DISTRIBUTION OF WORKERS IN THE SAMPLE AND OF EMPLOYED MANUAL
WORKERS IN CALIFORNIA BY SKILL LEVEL

Skill level	Men		Women	
	Sample	Employed manual workers	Sample	Employed manual workers
Younger workers				
Craftsmen, foremen, and kindred workers (skilled).....	43.9%	44.6%	17.4%	9.0%
Operatives and kindred workers (semi-skilled).....	41.3	38.6	78.3	86.9
Laborers, except farm and mine (unskilled).....	14.8	16.8	4.3	4.1
Total.....	100.0%	100.0%	100.0%	100.0%
Number in sample.....	298		138	
Older workers				
Craftsmen, foremen, and kindred workers (skilled).....	58.8%	53.3%	15.7%	10.6%
Operatives and kindred workers (semi-skilled).....	23.6	28.1	82.3	85.9
Laborers, except farm and mine (unskilled).....	17.6	18.6	2.0	3.5
Total.....	100.0%	100.0%	100.0%	100.0%
Number in sample.....	233		51	

SOURCE: The data on employed manual workers in California are from *United States Census of Population: 1960*, Volume II, Part 5, pp. 314-316.

The cumulative percentages in this table clearly show that on the whole the older females had been working longer for their present employers than had the older males, the older males longer than the younger males, and the younger males longer than the younger females. The respective medians are: older females, 12.5 years; older males, 9.2 years; younger males, 5.8 years; and younger females, 4.3 years. The difference between the older and younger group for each sex was to be expected, of course; those between younger males and younger females, and older males and older females may be due in part to sex differences in employment stability (especially in the younger

TABLE C-3
DISTRIBUTION OF MALE WORKERS IN THE SAMPLE AND OF EMPLOYED MALE MANUAL WORKERS IN CALIFORNIA BY SKILL LEVEL AND AGE

Age	Skilled			Semiskilled			Unskilled			Total		
	Sample		Employed manual workers ^a	Sample		Employed manual workers ^a	Sample		Employed manual workers ^a	Sample		Employed manual workers ^a
	Num-ber	Per cent		Num-ber	Per cent		Num-ber	Per cent		Num-ber	Per cent	
Younger men												
Less than 30 years.....	15	33	35	17	38	45	13	29	20	45	100	100
30 to 39 years.....	54	50	49	44	40	37	11	10	14	109	100	100
40 to 49 years.....	62	43	51	62	43	34	20	14	15	144	100	100
Older men												
50 to 59 years.....	87	55	53	39	25	30	32	20	17	158	100	100
60 years and older.....	50	67	53	16	21	25	9	12	22	75	100	100

*For source of these data, see Table C-2.

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groups), but also seem to reflect uncontrolled differences in the sampling. In any event, it is apparent that our sample consists chiefly of relatively stable and settled workers.

5. *Age Distribution*.—The age distribution of the sample, and of employed manual workers in California, has been discussed in Chapter II (see Table C-6).

TABLE C-4
DISTRIBUTION OF MALE WORKERS IN THE SAMPLE BY
EMPLOYMENT STATUS OF SPOUSE

Employment status of spouse	Younger men		Older men	
	Number	Per cent	Number	Per cent
Employed, full or part time.....	70	30	51	24
Temporarily not working.....	35	15	12	5
Permanently not working.....	127	55	154	71
Total.....	232	100	217	100

VII. SPECIAL FACTORS OF BIAS

There is one group of variables which require attention because of the special part which they may play in interpreting some of the study data. These are variables (1) which are not themselves closely associated with age, (2) which differ from one plant to another, and (3) which tend to exert a systematic influence on the attitudes of workers in a given plant. Since the proportion of older workers in the sample shows considerable variation from one plant to another, the effects of these variables may be confounded with those of age in producing differences between older and younger groups on other variables. In the degree to which they contribute to differences between age groups, they may be considered factors of bias in selection of the sample.

Three variables have been studied which may fall into this category. They are (1) the presence or absence of formal retirement policies and pension systems in the plants, (2) the presence or absence of unions among the workers in the plants, and (3) the mode of enlistment. Other such factors may exist, but these have been investigated and will be discussed in this section.

1. *Retirement Policies*.—It was noted in Chapter II that ten of the plants had formal retirement policies with pension provisions and twelve did not (with the status of five unknown). Table C-7 shows that the workers of the four basic groups were not distributed proportionately in these two classes of plants. Relatively more older men

TABLE C-5
DISTRIBUTION OF WORKERS IN THE SAMPLE BY NUMBER OF YEARS WITH PRESENT EMPLOYER
(Total time, continuous or interrupted)

Number of years with present employer	Younger men		Older men		Younger women		Older women		Cumulative percentages*			
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Younger men	Older men	Younger women	Older women
0 to 1.9.....	58	18	17	6	44	28	..	..	100	101	101	99
2 to 3.9.....	71	21	49	17	27	17	3	4	82	95	72	99
4 to 5.9.....	39	12	22	8	37	24	9	12	60	78	54	95
6 to 7.9.....	60	18	24	8	24	15	5	7	48	70	30	83
8 to 9.9.....	32	10	47	16	7	4	11	15	30	61	14	76
10 to 19.9.....	50	15	95	33	12	7	17	23	20	44	9	61
20 or more.....	16	5	28	10	1	1	28	38	5	10	1	38
Unknown.....	3	1	5	2	5	4	..	..		
Total.....	329	100	287	100	157	100	73	99				

* The unknown cases have been eliminated in computing the cumulative percentages.

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and younger women came from plants with retirement plans; relatively more younger men and older women came from plants without retirement policies. The difference between age groups is significant at the .001 level for both sexes. There is, however, no indication of a sex difference as such.

TABLE C-6
AGE DISTRIBUTION OF WORKERS IN THE SAMPLE AND OF EMPLOYED
MANUAL WORKERS IN CALIFORNIA

Age	Men		Women	
	Sample	Employed manual workers	Sample	Employed manual workers
Younger workers				
Less than 20 years.....	1.5%	4.1%	3.8%	4.4%
20 to 29 years.....	13.4	31.4	22.3	28.1
30 to 39 years.....	36.5	35.6	38.9	35.6
40 to 49 years.....	48.6	28.9	35.0	31.9
Total.....	100.0%	100.0%	100.0%	100.0%
Number in sample.....	329		157	
Median age (years).....	39.6	33.9	36.2	35.1
Older workers				
50 to 59 years.....	64.1%	67.2%	68.5%	70.6%
60 and older.....	35.9	32.8	31.5	29.4
Total.....	100.0%	100.0%	100.0%	100.0%
Number in sample.....	287		73	
Median age (years).....	57.8	56.9	57.3	56.4

SOURCE: The data on employed manual workers in California are from *United States Census of Population: 1960*, Volume II, Part 5, pp. 314-316. Three occupational groups are included: (1) craftsmen, foremen, and kindred workers, (2) operatives and kindred workers, and (3) laborers, except farm and mine.

Although it is possible to hypothesize a relationship between presence or absence of a formal retirement policy and the average age of workers employed by a plant,⁹ the reversal of direction of the difference from the male to the female groups suggests that the differences obtained are primarily attributable to factors of bias in selection (i.e., to the lack of independence among the workers from a plant with respect to this variable).

⁹ For example, we learned in our initial contacts with companies, especially in the Los Angeles area, that in a number of plants the issue of retirement policies has in effect never arisen because the plants have been in existence for only a few years and their employees have included few or no older persons.

TABLE C-7
DISTRIBUTION OF WORKERS IN THE SAMPLE AND OF PLANTS BY PLANT RETIREMENT POLICIES

Retirement policy	Plants		Younger men		Older men		Younger women		Older women	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
All plants										
Compulsory, with pension	5	19	32	10	110	38	33	21	5	7
Optional, with pension ...	5	19	71	21	31	11	27	17	3	4
None.....	12	44	168	51	112	39	61	39	36	49
Unknown.....	5	19	58	18	34	12	36	23	29	40
Total.....	27	101	329	100	287	100	157	100	73	100
Plants reporting on their retirement policies										
Retirement policy, with pension.....	10	45	103	38	141	56	60	50	8	18
No retirement policy or pension.....	12	55	168	62	112	44	61	50	36	82
Total.....	22	100	271	100	253	100	121	100	44	100

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This means that if we find a difference between the older male and younger male groups in a certain attitude toward retirement, for example, we do not know whether this difference is due to the age factor or to the influence of working for a company with (or without) a retirement policy and pension system.

The only way to untangle this snarl of information is to go back to the original data and treat some of the plant groups separately. Until this can be done, we must accept the loss of some information entailed in the present cruder analysis.

There are, however, some variables which give no evidence of being related to the retirement policy variable when direct intra-group comparisons are made. There will be no reason to suppose that presence or absence of retirement policies in the plants will materially affect group differences for these variables.

The relationships between the retirement policy variable and sixteen attitude variables from the interview have thus far been investigated by intra-group contingency tables. Of these sixteen, nine bear directly on problems of retirement, three do so by implication, and four do not.

Only four of these variables show significant relationships with retirement policy within one or more single groups, while two more show significant relationships for the male groups when they are weighted for proportional age representation in the population and combined. Four more are suggestive of trends. The remainder, so far as can be determined from present data, are independent of retirement policy. The relationships of demonstrated significance are found for the most part in the younger male group,¹⁰ and are scattered among the variables which do not bear directly on retirement problems as well as those which do. These findings may be summarized as follows:

Relatively more workers from plants with formal retirement policies and pension systems, and relatively fewer from plants without, expressed themselves as follows:

a. They believed that workers should not be retired at a fixed age, or were uncertain on this point. (Significant only for younger males; the relationship was reversed in the female groups.)

b. They were more concerned with the worker's personal interest, less with those of the company or society. (Significant only for younger males; similar relationship in older male and younger female groups; older females were split evenly.)

c. They expected to go into retirement when they quit working ultimately, rather than continuing to work until they died, or quitting

¹⁰ Probably because this is usually the largest group. The FO group is rarely large enough to permit use of the X^2 criterion in intra-group comparisons if its use is confined to contingency tables in which the smallest theoretical frequency is five or more.

to go into private business, to marry, etc. (Significant for younger male and older male groups; significant for female groups when weighted and combined. This relationship is more clearly established for the entire sample than is that for any other variable in this list.)

d. They did not believe they could readily get another job as good as the one they now hold. (Significant for younger males only; relationship is consistent through all four groups.)

e. They expected a company pension when they retired. (Significant only for male groups combined; similar relationship in younger female group.)

f. They (males only) expected to remain in their present jobs until they retired rather than receiving a promotion, getting another job, or going into private business. (Significant only for the two male groups combined; the relationship is reversed in the female groups.)

The following three variables, although failing to produce any statistically significant findings, did yield differences which were sizable enough and relationships which were consistent enough to suggest a probable relationship with plant retirement policy:

g. More workers from plants with retirement policies appeared to believe that retirement age should *not* depend upon the kind of work done. (This relationship is reversed for the older men.)

h. Probably more workers from plants with retirement policies, among the men at least, expected to engage in such post-retirement activities as hobbies, housework, community affairs, rest, relaxation, and the like, rather than working.

i & j. There seemed to be a tendency for workers who worked in plants with formal retirement policies to give more evidence of positive liking for their jobs. This tendency appeared in two different but related measures; one was the response to a direct question (Question 11 in the interview), the other was an inference derived from the latent content of the entire question block (Questions 11 through 12.1).

By and large, the relationships pointed out above make sense, and at least some of them might have been expected. It is perhaps less easy to understand why some of the variables listed below appeared to be independent of plant retirement policy:

k. Whether or not the worker had any definite personal retirement plans. (It was only among those who did have such plans that the relationships noted above in c. and h. were found.)

l. The worker's expected financial status after retirement.

m. The age at which workers in general should retire if any.

n. Who should determine when a worker should retire (the individual, the company, the government, the union, or combinations of these).

o. How the worker felt about working with his co-workers.

p. The worker's general expectation for the future.

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If there is no relationship in the population between the presence or absence of retirement policy and pension system in the plant, and the worker's position with respect to the first two of these variables and the last, then many of our industrial workers must be very unrealistic and unduly optimistic, or have unsuspected resources for their support in old age—or perhaps they are merely ignorant of their company's retirement policy. There is some evidence, in fact, that both the first and the last of these possibilities have some foundation in fact.

TABLE C-8
PERCENTAGES OF WORKERS WHO EXPECTED PENSIONS AND WHO
WORKED IN PLANTS WITH PENSION PLANS

Attitude or status	Younger men	Older men	Younger women	Older women
Expect a pension.	37%	42%	33%	20%
Work in plant with pension plan.	38	56	50	18

In general, these findings do not argue that presence or absence of a formal retirement policy in the plants in which they work is a matter of overwhelming import for the members of our sample. Even so, in interpreting our data we cannot afford to neglect the possibility that obtained differences between age groups may be in part attributable to the confounded influence of the retirement policy factor.

Table C-8 indicates the percentages of workers who worked in plants with pension plans as compared with those who, when interviewed, said they expected to receive pensions or retirement. These data are discussed in Chapter V.

2. *Unionization.*—It can be seen at once from Table C-9 that a great majority of workers in both younger groups were unionized, while this was true for one-half or fewer of the older workers. Relatively more males than females in the sample belonged to unions although this difference fell just short of statistical significance.

An estimation of the possible effect of these differences must await more detailed analysis of the data. It would also be helpful to know something about the relationships between unionization and the attitude variables, but time has not yet permitted determination of these. Meanwhile, it will be well to bear this factor in mind when we interpret differences between age groups for variables with which unionization seems likely to be correlated.

3. *Mode of Enlistment.*—Table C-10 discloses another possible source of bias, which resides in the unfortunately significant difference between the older and younger male groups in the proportion of workers enlisted under pressure.

TABLE C-9
DISTRIBUTION OF WORKERS IN THE SAMPLE AND OF PLANTS BY UNION STATUS, AS REPORTED BY COMPANY OFFICIALS

Union status	Plants		Younger men		Older men		Younger women		Older women	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
All plants										
Strong.....	11	41	133	40	78	27	72	46	15	20
Medium.....	6	22	112	34	46	16	27	17	3	4
None.....	4	15	20	6	122	43	22	14	26	36
Unknown.....	6	22	64	20	41	14	36	23	29	40
Total.....	27	100	329	100	287	100	157	100	73	100
Plants reporting union status										
Union present.....	17	81	245	92	124	50	99	82	18	41
No union.....	4	19	20	8	122	50	22	18	26	59
Total.....	21	100	265	100	246	100	121	100	44	100

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Since older men were relatively oversampled in this study, to produce a group of adequate size, it is perhaps inevitable that somewhat greater pressure should have been brought to bear on older workers than on younger ones to "volunteer." Despite this, at least part of the difference in pressure exerted on older and younger men in the sample appears to be the result of a happenstance of selection. In either case, of course, it represents a possible factor of bias in differences obtained on other variables between the older and younger males. There is happily no evidence of a similar difference between the older and younger female groups, or between the combined male groups and the combined female groups.

As in the case of retirement policies in the plants, we may again examine the dependence or independence of certain attitude variables which mode of enlistment shows when a direct comparison is made in intra-group contingency tables. There will be little or no reason to consider enlistment a serious source of bias for those variables to which it shows no direct relation.

These direct comparisons are available for only a very few attitude variables to date. They are the following:

- a. Response to the question, **how do you like your present job?**
- b. Inference from latent content concerning how well the respondent likes his job.
- c. Whether or not the worker believes he could readily get another job as good as his present one.

These comparisons showed no significant differences, no suspiciously large differences, and no consistent trends. As far as our evidence goes, it appears likely that mode of enlistment was independent of these attitude variables. Since these variables were selected as among those most likely to be sensitive to the effects of mode of enlistment, if any, it is doubtful that enlistment procedures have substantially biased the study results despite the difference between the male groups with respect to this variable. It was noted above that even where pressure occurred, it was most often slight. It was also mentioned that the interviewers were quick to detect signs of suspicion or resentment on the part of workers coming to the interview, and that they took special pains to re-orient such workers.

One further bit of information is relevant to this issue. Mode of enlistment was found to show a significant ($X^2 = 5.22$, $P < .05$) relationship to the adequacy of the interview as rated by the interviewer in the older male group, and a probable relationship also in the younger male group ($P < .10$). The direction of the association, however, was reversed from one group to the other, and in the group in which it was statistically significant, it was in the "wrong" (or better, unexpected) direction. This finding will be discussed in greater detail in the following section; meanwhile we need merely note that for females and older

TABLE C-10
DISTRIBUTION OF WORKERS IN THE SAMPLE AND OF PLANTS BY MODE OF ENLISTMENT OF INTERVIEWEES

Mode of enlistment	Plants		Younger men		Older men		Younger women		Older women	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
All plants										
Voluntary.....	13	48	190	58	102	35	112	71	48	66
Under pressure.....	11	41	99	30	151	53	45	29	25	34
Unknown.....	3	11	40	12	34	12	..	..	..	..
Total.....	27	100	329	100	287	100	157	100	73	100
Plants for which information was available										
Voluntary.....	13	54	190	66	102	40	112	71	48	66
Under pressure.....	11	46	99	34	151	60	45	29	25	34
Total.....	24	100	289	100	253	100	157	100	73	100

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workers at least, there is no evidence that enlistment pressure tended to increase the number of inadequate interviews.

Granting that more complete analysis might prove us wrong, we feel justified at this point in discounting mode of enlistment as a factor of bias that is likely to be important in our results.

4. *Adequacy of the Interview.*—One more variable, although strictly speaking it is not plant-related in the sense of the preceding three variables, can be appropriately discussed in this section.

Some time after interviewing had begun (in fact, after the majority of the females in the sample had already been obtained), it was decided to have the interviewers record a formal evaluation of each interview immediately after its completion. Accordingly a sheet was prepared for this purpose. The first item on the sheet reads: "To what extent do you believe the respondent communicated his real ideas, opinions, and feelings, in his (her) responses?" This answer was recorded on a six-step scale ranging from "Not at all" (0) to "Completely" (5). The items following requested detailed reasons which were to be given if the rating was below four. The sheet also included a list of twelve adjectives, six favorable to interview adequacy (*co-operative, straightforward, thoughtful, etc.*) and six unfavorable (*anxious, resentful, suspicious, etc.*), the applicability of each of which was also rated.

Only the initial rating of adequacy has thus far been treated, and these data are presented in Table C-11. It will be seen that from 8 per cent to 22 per cent of the interviews in a group were rated 3 or lower on the scale. None of the group differences approached significance, either singly or in combination.¹¹ The "inadequate" interviews, insofar as they may introduce more random errors, may tend to decrease the group differences in other variables, or the intra-group relationship between two variables, but without important differential effects on the groups.

This measure of interview adequacy shows no discernible relationship to any of the several attitude variables thus far tested in connection with it. The variables were selected as seeming most likely to be affected by interview adequacy; they are mostly concerned with the worker's attitudes toward his job and his future. They are the following:

- a. How the worker feels about his co-workers.
- b. Whether the worker feels he would be more or less useful if younger.

¹¹ The FO group contains far too few cases for stable percentages, of course, and too few to justify the use of X^2 in conjunction with the FY group. Direct computation of probabilities by means of binomial coefficients shows that this difference is not significant.

c. Whether the worker feels that his age affects the way his boss treats him. (b and c were asked only of workers aged 50 or more.)

d. & e. The direct response to the question about how he likes his job, and the inference from latent content.

f. The worker's belief about his ability readily to get another job as good as his present one.

g. The worker's general expectation for the future.

Again we found no evidence that the rated adequacy of the interview produced an effect on other variables.

TABLE C-11
DISTRIBUTION OF WORKERS IN THE SAMPLE BY ADEQUACY OF INTERVIEW

Rating of interview	Younger men		Older men		Younger women		Older women	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Adequate (4 to 5)	210	84	180	79	47	78	11	92
Inadequate (0 to 3)	39	16	49	21	13	22	1	8
Total ^a	249	100	229	100	60	100	12	100

^a Totals exclude interviews that were not rated.

One relationship involving this variable did emerge, however; this was the relationship between mode of enlistment and adequacy of the interview, mentioned in the preceding section. Among the older men with a high rating for interview adequacy, the great majority were found to have been enlisted under pressure. Even though we should *a priori* expect the voluntary participants to give more adequate interviews, this much of the finding is nevertheless understandable, because the majority of all older workers were enlisted under pressure. On the other hand, a slight majority of those with low adequacy ratings were entirely voluntary participants. This swing is sufficient to produce a X^2 of 5.22, which is equivalent to a probability of about .022 that the obtained difference would occur by chance.

In the younger male group the relationship is reversed—i.e., although not statistically significant, ($X^2 = 2.97$, $P < .10$), the obtained difference is in the expected direction, with relatively more true volunteers giving interviews judged adequate. The female groups are not helpful here. They include too few cases in the joint distribution to yield much information, even when they are combined. And what little they can contribute is in the same direction as it is among the older men.

We are at a loss to explain this finding satisfactorily. It may be that a small amount of pressure, perhaps followed by liberal reassurances from the interviewer, actually makes for more earnest and forth-

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right cooperation in responding to the interview questions, at least among females and older workers. Or it may be that the pressures used at enlistment did not cause the workers to respond as defensively as the interviewers would expect (once they had learned of the pressure), and that these interviews therefore actually appeared better than the others to the interviewers.¹²

In any event, it seems reasonable to conclude that although enlistment pressure and interview adequacy may be related to one another in some esoteric fashion, probably neither is closely related to the attitude variables of the study. Therefore, insofar as we can tell, neither of these two factors is likely to influence the study findings to an important degree.

¹² It might be argued that in a study such as this where a large number of X 's are computed, several are bound to occur through chance alone which convey a spurious impression of significance and that this is "likely" to be one of them. The likelihood is about one in forty-five.

APPENDIX D

INTERVIEW SCHEDULE

Make sure your respondent is seated comfortably and that you have all of your interviewing materials at hand. Make some introductory remark to help put him at his ease (offer him a cigarette, comment on the weather, make a remark about what an interesting place he works in, or the like). Then say in a conversational tone:

We are interviewing a lot of people in different jobs and we want to include you among them. One of the things we're trying to find out is how these people and others like them can best get along in the future. This study is being done by the Institute of Industrial Relations at the University of California. Both your employers and your union have O.K.'d the study, but neither of them will be told how any one person answers the questions we are asking. We don't think you'll mind answering any of the questions; but we want you to know that whatever you say, it will not be used either for or against you personally, in any way. We are interested in the ideas of people in your kind of work as a GROUP, taken all together. Your ideas will be combined with the ideas of all the other people in your group. Except for the few of us at the university who have to put the results from the interviews together, no one is ever going to know what you as an individual say here. Is that clear?

If necessary, explain the anonymity and confidentiality of the responses until R seems to understand; but avoid any more specific explanation of the *purpose* of the study.

1. What is your name?
2. How old are you?
(Enter age at last birthday)
3. Are you married?
If *yes*: (If *no*, skip to 3.01-N)

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a3.01-Y ... is your wife (husband) employed?

If *yes*: (If *no*, skip to a3.012-N)

a3.011-Y ... what does she (he) do?

(Determine the kind of work he or she does, and the kind of place he or she does it in) (skip to 3.02-Y)

a3.012-N ... do you expect her (him) to get employment any time in the future?

(If so, determine whether permanent or temporary, full or part time) (skip to 3.02-Y)

3.01-N ... have you ever been married?

If *married, now or formerly*: (If *not*, skip to 4)

3.02-Y ... do you have any children living?

If *yes*: (If *no*, skip to 4).

3.021-Y ... sons or daughters? How old is each?

(List them all, as, "Son, 28; daughter, 25," etc.)

4. How far did you go in school?

(Record the number of the highest school grade completed. Thus, if R says, "To the seventh grade," find out whether or not he finished the seventh grade. If so, record "7"; if not, record "6." If R says, "Through grammar school," "Junior high school," or the like, find the actual grade number of the highest grade completed. Record night school, business school, trade school, etc., separately, indicating the number of years of regular schooling and this special schooling separately.)

5. What is, or was, your father's occupation?

(Occupation is wanted, not specific jobs. If father is dead or retired, discover last occupation before death or retirement. If more than one occupation is given, record them all, indicating their chronological sequence).

6. Did your family have a hard time getting along when you were a child?

If *yes*: (If *no* or non-committal, skip to 7)

6.01-Y ... in what way?

7. How old were you when you got your first regular full-time job?

7.1 How long did you have that job?

If *less than six months*: (If *more*, skip to 8)

7.11-X ... how old were you when you got the first job you held for more than six months?

8. How many different companies have you worked for?

9. How long have you been working for this company?

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- 9.1 Have you changed jobs since you started working for this company?
If *yes*: (If *no*, skip to 10)
- 9.11-Y ... how long have you been in the job you're working at now?
10. Within the last year, how much working time have you lost from sickness, accidents, or for any other reason?
(Obtain numerical estimate in terms of hours, days, weeks, or months, even if you have to urge R to make a rough guess.)
If *lost time is reported*: (If *not*, skip to 11)
- 10.010-Y (a, b) ... what were the reasons why you lost this time?
- 10.011 (a, b) (Obtain for *each period* of absence:
- 10.012 (a, b) a. A specific estimate of its duration, even if approximate.
- Etc. b. The reason for it. If the cause is work-connected, so indicate.)
If *no accidents nor injuries mentioned*: (If *so*, skip to 11)
- 10.02-O ... have you had any accidents or injuries within the last year that interfered with your work?
11. How do you like your present job?
(Explain, if necessary, that this includes not only how he likes the company, but also the specific work he is doing.)
- 11.1 Can you tell me a little more about it?
If *R has not mentioned any specific things* that he likes about his job: (If he *has*, skip to 11.120-O or 11.13-X)
- 11.110-O ... what one thing do you like best about your job?
- 11.111 ... what else do you like about it?
If *R has mentioned more than one specific thing in response to 11 and 11.1, but it is not clear which one thing he likes best* or considers most important: (If *R has mentioned only one specific thing, or clearly indicated which of several things he likes best*, skip to 11.13-X)
- 11.120-O ... which ONE of these things do you like BEST about your job?
- 11.121 ... is there anything about your job that you like that you haven't mentioned?
If *R has mentioned only one specific thing about his job that he likes, or if he has clearly indicated which*

INTERVIEW SCHEDULE

- one of several things he likes best:* (Otherwise, skip to 12)
- 11.13-X ... what else do you like about it?
12. Nearly all jobs have some things about them that are not so good. What things about your job are not so good?
If R mentions one or more things: (If not, skip to 12.02-O)
- 12.01-O ... what other things are not so good about it?
If R mentions nothing, DK, etc.: (Otherwise, skip to 12.1)
- 12.02-O ... can't you think of anything that could be better about it?
- 12.1 Have you thought much about this?
(*Note:* This question is to be asked regardless of contingencies above)
13. How long do you expect to stay in the job you're working at right now?
(Record whatever R says; then, if he has not given a numerical estimate, try to obtain one)
If R indicates that he has no idea how long: (If R has given an estimate, skip to 13.1)
- 13.01-O ... can't you make a rough guess?
(Do not probe further)
- 13.1 When you do leave this job, what do you suppose will be the reason?
- 13.2 If you could stay in the job you have now just as long as you wanted to, how long would you LIKE to stay in it?
(Again, record whatever R says; then, if he has not given a numerical estimate, try to obtain one) *If R indicates that he has no idea how long:* (If R has given an estimate, skip to 14)
- 13.21-O ... can't you make a rough guess?
(Do not probe further)
14. What do you expect to do when you leave this job?
If R says "Take it easy," or gives any other vague or indefinite answer: (If R has already answered specifically and in some detail, skip to 15)
- 14.01-X ... will you tell me what you mean in a little more detail?
15. Is there anything about your present job that you think you'll miss when you leave it?
If yes and specific things are mentioned: (If yes or

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- non-committal, with nothing specific mentioned, skip to 15.020-X; if no, skip to 15.03-N or 16)*
- 15.01-Y** ... what else do you think you'll miss?
If yes or non-committal, without mention of anything specific, skip to 15: (If no, skip to 15.03-N or 16)
- 15.020-X** ... what do you think you'll miss about it?
(Probe for some specificity and detail if necessary)
- 15.021** ... what else do you think you'll miss?
If no to 15, and no reasons given: (If no, and reasons have been given, skip to 16)
- 15.03-N** ... why not?
- 16.** If you should quit your job here, do you think you could easily get one as good somewhere else?
- 16.** Why is that?
If yes to 16: (If no, skip to 16.02-N)
- 16.01-Y** ... do you think you could get a better one?
If yes to 16.01-Y: (If no, skip to 16.012-N)
- 16.011-Y** ... how would you expect to get it?
If no or non-committal to 16.01-Y: (If yes to 16 and yes to 16.01-Y, skip to 17)
- 16.012-N** ... do you expect EVER to get a better job than the one you have now?
If yes to 16.012-N: (If no, skip to 16.0122-N; if DK, skip to 16.02-N)
- 16.0121-Y** ... how do you expect to get it?
If no to 16.012-N: and no reasons given: (Otherwise skip to 17)
- 16.0122-N** ... why not?
If no or DK to 16: (If yes, skip to 17)
- 16.02-N** ... do you expect ever to hold another job as good as this one, or better?
If yes to 16.02-N: (If no or DK, skip to 16.022-N)
- 16.021-Y** ... how do you expect to get it?
If no or DK to 16.02-N: (If yes, skip to 17)
- 16.022-N** ... can you explain that a little?
- 17.** About how many more years do you expect to be working?
(Record whatever R says; then, if an estimate in years is not included, try to obtain one)
- 17.1** Why do you expect to quit working then?
If spouse is employed (a3.01-Y, p. 1), or if R expects her (him) to get employment in the future (a3.012-N, p. 1), or if R is uncertain about spouse's future employment: (Otherwise skip to 18)

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- a17.2 ...about how many years do you think it will be before your wife (husband) stops working for good? (Record whatever R says; then, if estimate in years is not included, try to obtain one)
- a17.21 ...why do you expect her (him) to quit working then?
18. Do you expect to get a pension, or social security, or anything like that, when you retire?
If *DK*, or *the like*: (If *yes* or *no*, skip to 18.02-Y or to 18.03-N)
- 18.01-X ...do you suppose you are likely to get a pension, or social security, or anything, when you retire?
(If *R still fails to commit himself*, even tentatively, skip to a18.05 or 18.1)
If *yes* to 18 or 18.01-X: (If *no*, skip to 18.03-N)
- 18.02-Y ...where do you expect to get it from?
If *no* to 18 or 18.01-X: (If *yes* or *DK*, skip to a18.05 or to 18.1)
- 18.03-N ...why not?
If *R is married* (3., p. 1): (If *not*, skip to 18.1)
- a18.05 ...do you expect your wife (husband) to get a pension of her (his) own, or social security, or anything like that?
If *yes*: (If *no*, skip to a18.052-N; if *DK*, skip to 18.1)
- a18.051-Y ...where will she (he) get it from?
If *no* to a18.05: (If *yes* or *DK*, skip to 18.1)
- a18.052-N ...why not?
- 18.1 Will you have any other income, or anyone (else)* to help support you?
*(Include if help from spouse is indicated above)
If *work after retirement not mentioned*: (If work mentioned skip to 18.111-O or 19)
- 18.11-O ...do you expect to do any kind of work after you are retired?
If *yes*, *hope to*, or *the like*, but *kind of work not mentioned*: (If *kind of work mentioned*, skip to 19; if *no*, skip to 19)
- 18.111-O ...what kind of work?
19. Do you expect to have to live on less than you are living on now, after you retire?
If *yes*: (If *no*, or *DK*, skip to 19.02-N)
- 19.01-Y ...how much less?
(Try to get answer in fraction of present income, as "½ what I'm living on now," etc.)

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- 19.011 ... how do you think you'll like living that way?
If *no*, or *DK* to 19: (If *yes*, skip to 20)
- 19.02-N ... how would you get as much to live on as you have now?
- 20. Do you know anyone who has retired?
If *yes*: (If *no*, skip to 21)
- 20.010-Y ... how do they get along? (Or How does he get along? Etc.)
- 20.011 ... how do they like being retired? (Or How does he ... Etc.)
- 20.012 ... what do they do with their time? (Or What does he ... Etc.)
- 21. What kinds of things do you do in your spare time?
If *R* has not given a fairly thorough account, differentiating between evenings and weekends: (If he has, skip to 22)
- 21.010-X ... what do you usually do when you're through work for the day?
- 21.011 ... anything else?
- 21.012 ... what do you usually do on weekends?
- 21.013 ... anything else?
- 22. How often do you get together with your friends?
- 22.1 Are they mostly friends from the plant, or friends from outside?
- 22.2 What do you do when you get together with them?
- 22.3 What kinds of things do you talk about with them, mostly?
- 23. Are there any things you'd like to do in your spare time that you don't have a chance to do?
If *yes*, and one or more things mentioned: (If *no* or *DK*, skip to 24)
- 23.01-O ... anything else?
If *yes*, but none mentioned: (Otherwise skip to 24)
- 23.020-O ... what are they?
- 23.021 ... anything else?
- 24. Do you have any definite plans about what you will do after you retire?
If *yes*, (If *no*, skip to 24.030-N)
- 24.010-Y ... what are they?
- 24.011 ... how long have you had these plans?
- 24.012 ... have your ideas about this changed much in the last few years?
If *plans seem to require anything beyond a mere subsistence income*: (Otherwise, skip to 25)

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- 24.02-X ... have you thought much about how you will be able to afford to do this (these things)?
- a24.021 ... what (other)* kinds of things have you thought about that might keep you from carrying out these plans?
*(Include if money was mentioned as a possible obstacle to carrying out plans)
If *no*, to 24: (If *yes*, skip to 25)
- 24.030-N ... do you have any ideas about how you might spend your time? If so, what are they?
- 24.031 ... anything else?
- a24.032 ... what kinds of things (have you thought about that) might keep you from doing whatever you (might*) want to do after you retire?
*(Include if R has indicated nothing that he wants to do)
25. Have you talked much about your retirement with your family?
If *no*: (If *yes*, skip to 25.020-Y)
- 25.01-N ... have you ever talked about it with any of them?
If *yes* to 25 or 25.01-N: (If *no*, skip to 26)
- 25.020-Y ... with whom?
- 25.021 ... how do you think (they—she—he*) feel(s) about it? *(Use the appropriate term)
26. Supposing a person in your job keeps on working until he is retired by the company, and then he goes on pension. How old do you believe he (she) should be before he (she) is forced to retire?
- 26.1 Why do you believe this?
- 26.2 Do you believe that most people would agree with your idea about this?
27. Do you think that everyone should be retired at the same age, or that it ought to depend upon the kind of work they do?
- 27.1 Why is that?
- 27.2 Do you think most people would agree with you on this?
28. Do you believe that every one in the same kind of work should be retired at the same age, or that some INDIVIDUALS should be retired sooner than others?
- 28.1 Why is that?
- 28.2 Do you think that most people would agree with you on this?

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29. Who do you believe should decide when a person should retire: the company, the government, the person himself, his union, or who?
 - 29.1 Why do you believe this?
 - 29.2a Why shouldn't _____* have something to
 - 29.2b say about it? (Repeat the question for each one of
 - 29.2c the things in the list below which has *not* been men-
 - Etc. tioned in response to 29 or 29.1, or has been men-
 - tioned negatively but without reasons being given:
 - a. The company
 - b. The government
 - c. The person himself
 - d. His union)
30. If you could be sure of having the same income for the rest of your life as you have right now, whether you worked any more or not, do you think you'd quit or go on working? (If R interprets this to mean that he could get more, or extra, income, by working, inform him that this is not what is meant; explain that he is to suppose his income would be fixed at its present value, regardless of what he might do.) If *keep on*, or *DK*: (If *quit*, skip to 30.020-N)
 - 30.010-Y ... why?
 - 30.011 ... how long do you think you'd keep on?
If *quit*: (If *keep on*, or *DK*, skip to 31)
 - 30.020-N ... why would you quit?
 - 30.021 ... what would you do after you quit?
 - 30.022 ... what if you had a little less to live on for the rest of your life than you have now—would you keep on working?
31. Thinking back over the whole time since you first started to work, would you say you'd been well satisfied with the jobs you've had, or not?
 - 31.1 Why do you feel this way about it?
 32. When you first started to work, did you expect to keep getting better and better jobs, or did you expect to stay at about the same level?
 - 32.1 How has this worked out? Have you got about as far by this time as you expected, or farther, or not so far?
 33. In general, do you feel that you have been going uphill or downhill in your work in the last five years? That is, have your jobs been getting better and better, or have they been getting worse?

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- 33.1 How good has your WORK in your jobs been—getting better, or not so good?
34. How about in the future—say the next few years. Do you expect things to keep on going about the same for you, or do you expect them to get better or worse?
If R gives vague, indefinite response, says he doesn't know, etc.: (Otherwise, skip to 34.02-O or 35)
- 34.01-X ... if you had to guess, would you guess things are more likely to get better or worse for you in the next few years?
If R has indicated how he thinks things might go in the future, but has advanced no reasons for his feeling: (Otherwise, skip to 35)
- 34.02-O ... what are the reasons why you feel this way about it?
35. Do you think younger people or older people are likely to do better work in your kind of job?
(If R asks what you mean by "younger" and "older," explain that it depends on how he thinks of them)
If R says DK, "just the same," or otherwise fails to commit himself to some age range or group as better: (If an age range is selected, skip to 35.020-X)
- 35.01-O ... don't you think there is any way in which younger or older ones would be better?
If an age range or group is mentioned as better in response to 35 or 35.01-O: (If not, skip to 35.1)
- 35.020-X ... in what ways are (younger — middle-aged — older*) ones better?
*(Use the term or combination of terms that R has used in response to 35. or 35.01-O)
- 35.021 ... anything else?
- 35.03-X ... in what ways do you believe (younger—middle-aged—older*) workers are not so good as (younger —middle-aged—older**) ones?
*(Use the term opposite to the one you used in 35.020-X: i.e., if R has said that *younger* are better, use "older" here; if R has said *middle-aged* are better, use "younger and older" here, etc.
**(Use the same term here that you used in 35.020-X). If R has said "*middle-aged*" in response to 35 or 35.01-O, and then in response to 35.03-X has given reasons only why younger or older—not both—are not so good: (Otherwise skip to 35.1)

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- 35.031-O** ... and in what ways do you believe (younger—older*) ones are not as good as middle-aged?
 *(Use the one for which reasons were omitted in response to 35.03-X)
- 35.1** If you had to guess, would you guess that your boss feels the same way you do about this, or not?
- 35.2** How about the people you work with—would you guess that they feel the same way you do about it, or not?
 (Note: Ask questions 36–39, incl. only if R's age is 50 or more)
- 36. (O)** Do you think you enjoy your work more or less than you did a few years ago?
- 36.1 (O)** Why is that?
- 37. (O)** Do you feel that you are more or less useful to the company than you would be if you were younger?
- 37.1 (O)** In what ways?
- 38. (O)** Do you think your age influences the way your boss treats you?
 If *non-committal*, *DK*, etc.: (If *yes* or *no*, skip to 38.02-Y or 38.03-N)
- 38.01-O (O)** ... would you guess that your boss treats you differently than if you were younger?
 If *yes* to 38 or 38.01-O: (If *no*, skip to 38.03-N)
- 38.02-Y (O)** ... in what ways?
 If *no* to 38 or 38.01-O: (Otherwise, skip to 39)
- 38.03-N (O)** ... why do you think so?
- 39. (O)** Do you think your fellow workers would treat you differently if you were younger?
 If *yes*: (Otherwise skip to 40)
- 39.01-Y (O)** ... in what ways?
 (Note: This is the end of the special section for workers of 50 or more)
- 40.** Here is a card with a space on it which runs from YOUNG at this end through MIDDLE-AGED to OLD at this end. (As you say this, point first to the left end of the scale—which will be on your right if you hold the card upright for the respondent—run your pin along to the other end, pausing briefly at middle-aged). I want you to take this pin (Hand it to him) and punch a hole somewhere, along here in this space (Run your finger along the space), to show where you think you belong. Notice these points: here is YOUNG; here is BETWEEN YOUNG AND MIDDLE-AGED; here is MIDDLE-AGED; PAST

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MIDDLE-AGE BUT NOT OLD; and here is OLD. Punch a hole somewhere along this space to show where you think YOU belong.

(If R does not understand, explain the scale again, punch a hole in a piece of paper with the pin, etc., insofar as possible, make your explanation by repeating all or part of the instructions you have read to him. In any event, avoid placing any differential emphasis on any part of the scale, by work or gesture. If R inquires about it, tell him he may make his hole either on a mark or between marks—in fact, anywhere within the space. But if R wants specific instructions *where* to punch the hole, ask him to decide that for himself.)

- 40.1** Now you've shown on the card what age group you feel you belong to. How would you say it in words? If R *does not understand, or if he gives a numerical answer:* (Otherwise, skip to 41)

- 40.11-X-a** . . . I mean how would you describe in words the age group you feel you belong to?

(Record R's response to 40.1 (plus 40.11-X if asked) directly on the card itself, beginning just under the scale and running over onto the back if necessary. Then *enter the interview number in the upper right hand corner of the card*, AND CIRCLE THE LETTER A. Put the card out of sight).

- 41.** Would you say that you are younger or older than most of the people you work with?

- 41.1** How do you feel about working with people who are (younger than—older than—about the same age as*) you are?

*(Use the proper term as determined by the response to 41)

- 41.2** Does it make you uncomfortable in any (other*) way?

*(Include "other" only if one or more ways were mentioned in response to 41.1)

- 42.-b** Here is another card (Hand him one). I want you to punch a hole in the space on this one, to show how you suppose **THE YOUNGER ONES** among the people you work with think of you—as young, between young and middle-aged, middle-aged, past middle age but not old, or old. Where do you suppose the younger people you work with would put you along here? (Run your finger along the space.)

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- Punch a hole somewhere along the space to show where you think they'd put you. (Repeat the instructions, or parts of them, as much as necessary until R understands the task. After he has punched a hole, *enter the interview number on the card, and draw a circle around the letter b.* Put the card out of sight.)
- 43.-c All right, here's another card (Hand him one). This time I want you to punch a hole to show where you think **THE OLDER ONES AMONG YOUR FELLOW WORKERS MIGHT PUT YOU.** (Again enter interview number. *Circle c.* Put card away.)
- 44.-d How do you suppose your boss would think of you? Here is another card (Hand him one). Punch a hole to show where you think your boss would put you along here. (Enter the interview number. *Circle d.* Put card away.)
- 45.-e Here is one more card (Hand him one). This time I want you to punch a hole to show where you suppose your friends outside the plant would put you along here. (Enter interview number. *Circle e.* Put the card away. *Retrieve pin.*)
46. A (man—woman*) is no longer a "young" (man—woman*) at about what age?
 *(Use *man* if R is male, *woman* if R is female.)
 (Record answer verbatim; then, if a numerical answer has not been given, try to obtain one. If necessary, assure R that there is no right or wrong answer, that it's merely a matter of personal opinion and his opinion is as good as anyone's.)
47. A (man—woman*) is beginning middle age at about what time?
 *(Instructions as for 46)
48. Old age begins when a (man—woman*) is about how old?
 *(Instructions as for 46)
49. Let's talk about jobs again for a moment. If you had your choice, how would you like to work in a job where you were doing the same thing every day, without having to change from one thing to another? If R says *that's the kind of job he has*:
- 49.01-X ... do you like working this way, or do you wish it were different?
- 49.1 Why do you feel this way about it?
50. How would you like a job in which you did different kinds of things at different times depending

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on what needed to be done—supposing you already knew how to do all of the things and were good at them all?

If R says that's the kind of jobs he has:

50.01-X ... do you like working this way, or do you wish it were different?

50.1 Why do you feel this way about it?

51. How would you like a job in which the work was never the same for very long at a time, and you had to be learning how to do new things quite often?
If R says that's the kind of job he has:

51.01-X ... do you like working this way or do you wish it were different?

51.1 Why do you feel this way about it?

52. Here is a sheet with some questions on it (Hand him a copy of *MI-W Supp. 2* and have another copy available to which you can refer). Most workers in your kind of work would probably answer some of these questions YES and some NO. I want you to take this pencil (Hand him one) and read over each question carefully, be sure you understand what it says, and then answer it by drawing a circle around YES or NO. If you want to answer a question "yes," draw a circle around the YES just before the question: if you want to answer it "no," draw a circle around the NO. Start at the top and work right down the page. Try not to leave any of the questions out. Answer them as well as you can: Remember that no one outside of a few of us at the university will ever see these sheets or know how you answer any of the questions.

(Explain the procedure to R as much as necessary. If he has trouble reading and/or understanding the questions, read them to him—but *don't* try to interpret or explain them. When R has finished, *enter the interview number at the top of the page, in the space indicated.*)

XX —And that's all. Thank you very much. You have been very helpful.

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