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Social capital and human capital: The effects of education on the early employment outcomes of noncollege youth

Dorsten, Linda Eberst, Ph.D.
The Ohio State University, 1989
SOCIAL CAPITAL AND HUMAN CAPITAL:
THE EFFECTS OF EDUCATION ON THE EARLY EMPLOYMENT OUTCOMES
OF NONCOLLEGE YOUTH

A Thesis

Presented in Partial Fulfillment of the Requirements for
the degree Doctor of Philosophy in the
Graduate School of the Ohio State University

by

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***

The Ohio State University
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Advisor
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To My Family,

Especially Angel and Aimee
ACKNOWLEDGEMENTS

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CHAPTER I
INTRODUCTION

Do high schools equip youths who enter the labor market after graduation with the social and organizational skills necessary to do well in their jobs? Can some of the economic disadvantages faced by women and minorities be overcome by informal socialization experiences in schools? The transition from school to work has been studied extensively for two decades (e.g., see Borman and Reisman 1986; Mortimore and Yarrow 1987; Hotchkiss and Dorsten 1987). Yet, there are no clear answers to these questions. One shortcoming in much of the research is that it too frequently has focused on the acquisition of cognitive skills, to the neglect of learning how people acquire the social and organizational skills that presumably shape careers (for further elaboration of this point, see Etzioni 1982, 1983, 1989; Corwin 1986; Corwin and Namboodiri 1989; Bidwell, 1988). Another fundamental problem is that "years of education" has been repeatedly used to explain social mobility, without consideration for what this variable measures, or the concrete experiences that make a year of education (e.g., Blau and Duncan 1967; Duncan, Featherman and Duncan 1972; Sewell and Hauser 1975; Featherman and Hauser 1978).

This study addresses the distinct possibility that job performance is influenced by what will be called nontechnical work skills consisting of: (a) knowledge of basic institutional resources, such as
how to identify the more important rules and where to secure informal support and information, and (b) knowledge about the strategic use of resources, such as when to comply or innovate in response to a managerial directive or organizational rule. The working hypothesis is that some of these skills are fostered by particular aspects of schools, in particular, the academic climate, mechanisms controlling the disciplinary climate, relationships with teachers, and participation in extracurricular activities.

It is known that academic and vocational experiences alone are not sufficient to produce favorable economic outcomes for all groups. For example, cognitive skills have different effects for disadvantaged groups and in different labor markets. Numerous studies have described particular aspects of the relationship between the education system and socioeconomic status, such as the academic climate. Less is known about the relationship between how students learn to cope with school rules and regulations, and other aspects of the "paracurriculum" (Hargreaves, 1977), and their employment status after high school.

Conflict theorists often speak as though schools teach working class youth little more than obedience. They also argue that entry level and lower echelon jobs have been so thoroughly standardized and "deskilled" that no more is required of employees than their loyalty and obedience. McNeil (1986:208) extends this thesis into the classroom as well, pointing out that teachers break learning into simple assignments and then reward students for doing what they are told. However, while there is some truth in these characterizations, they are overly simplified and distorted. A little reflection will
suggest that some students learn more than blind compliance, including patterns such as those Merton (1968) refers to as innovation, ritualism, retreatism, and rebellion.

Unfortunately, there is still not much systematic information about what part schools might or might not play in the acquisition of nontechnical work skills. However, some clues are available from case studies of particular work settings. Argyris (1957) and Edwards (1979) have pointed out that (bureaucratic) work organizations reward conforming behavior, deference to rules, and dependability. Yet, conformity is not the only option open to lower echelon workers. They sometimes turn to unions to protect their rights. They also use informal mechanisms to exercise a measure of control in work settings (Crozier 1964; Kanter 1977; Kusterer 1977; Burawoy 1979). For example, Kanter (1977) noted that secretaries often sought to work with a boss whose status reflected favorably on her. Kusterer (1977) found that in lower level jobs, where technical skills overlapped with those of everyday life, workers had to establish an "image of confidence." Acquiring "working knowledge" -- or the ability to see a pattern in seemingly unpredictable events -- provided workers with the necessary image of confidence, generated credibility, and allowed them to secure informal support across formal lines (p. 60). Those who established the image gained credibility, and were able to request information and cooperation when needed.

The present research addresses the following questions: What are the contributions of high school socialization to the acquisition of nontechnical skills needed to succeed in various kinds of work.
settings; and Do these skills help workers of minority groups overcome some of the economic disadvantages they face? Based on the findings of case studies in the workplace, it is expected that:

- social relations in schools help youths acquire norms and values about life in organizations such as "rules about rules," and
- the norms and values help youths become more successful than otherwise would occur in the early career, due to the acquisition of nontechnical social and organizational skills.

PURPOSE

The purpose is to identify school background characteristics associated with success in the early employment period after high school for noncollege youths. School background includes paracurricular characteristics of schools beyond the formal curriculum, and beyond the cognitive and technical skills that young workers may have acquired in school. The interest is not in the social psychological aspects of schools. Rather, this study will focus on the structural effects of schooling, for example, how the classroom and non-classroom activities of teachers affect wages and success in job performance net of cognitive and technical skills. A particular focus of the study will be the effects of school background on the work outcomes of women and racial minorities.

In the following chapters, social capital will be distinguished from its economic theory antecedent, human capital. Human capital refers to the investments individuals make in education and training to increase the probability of greater economic success. Commonly used measures of human capital in empirical studies are years of schooling...
and work experience. Social capital, on the other hand, represents social resources, such as sources of information and their capability to be tapped, norms and effective sanctions, and obligations and expectations (Coleman and Hoffer 1987; Coleman 1988). The theme of this study is that informal social relations with concerned adults in schools and their social capital resources help students acquire nontechnical skills that otherwise are either not readily obtained, or are attained only randomly, through unplanned experiences at work.

Social capital represents interdependent behaviors of people and is not based on an individualistic premise such as in human capital theory. Coleman and Hoffer discuss the benefits of school social capital. It is present in supportive relations with concerned adults associated with the school, such as teachers and parents. Although, as Coleman and Hoffer see it, school social capital is more frequently found in Catholic schools, they identify other types of schools that are likely to provide social capital for their students, such as magnet or specialty schools and boarding schools. More important, Coleman (1988) argues that school social capital is a critical resource for students from broken homes and disadvantaged backgrounds, because family social capital is often limited or nonexistent.

The present study is primarily concerned with whether high schools provide forms of social capital that help youths not bound for college to acquire the nontechnical social and organizational skills necessary for success in the early career. In this respect, it diverges from the status attainment tradition, since the latter typically attributes career outcomes to interpersonal interactions with parents and peers.
It also provides important information about the relationship between school and work outcomes other than those linked to years of schooling. The focus is primarily on the development and effects of nontechnical work skills on outcomes such as wages and unemployment after the job is obtained. It is not being claimed that nontechnical skills are critical for getting a job. Educational level seems to "certify" skills or whether one is trainable (Collins 1979; Bills 1988), or influence the type of first job one gets (Sewell et al. 1980; Raelin 1982). In any case, this study will concentrate on what happens after a job has been secured.

THEORETICAL MODEL

Figure 1.1 outlines the model that guides the present study. Each type of variable in the model will be briefly summarized here and discussed in greater detail during the course of the study.

Family/Personal Background → Early Employment Experiences → Wages

Dimensions of School Background

Figure 1.1 Sketch of a model of school background and employment outcomes in the early career.

In general, it is assumed that variables representing each category in the model are causally related to the study outcomes in the
following ways. First, it is expected that school background characteristics directly influence wages. An alternative argument, however, is that schools affect wages through their influence on the early employment experiences of noncollege youth. The discussion that follows presents an overview of the variables and hypotheses of the model in figure 1.1.

*Family background and personal characteristics* are also known to be causally related to career outcomes (e.g., Blau and Duncan 1967; Duncan, Featherman and Duncan 1972; Sewell and Haller 1975; Hauser, Sewell and Tsai 1983; Hotchkiss and Dorsten 1987). In the present study, family and personal variables likely to influence work outcomes are:

- father’s and mother’s occupational status (Duncan Index),
- occupational aspirations,
- cognitive ability,
- sex and race, and
- marital status.

*School background characteristics* consist of numerous school variables that, it is proposed, are related to employment outcomes. From studies in sociology and education, four categories of variables have been selected that represent an extensive range of measures of school background. Briefly, these categories are as follows.

- Degree of academic emphasis experienced, represented by curriculum track of student, percentage of the student population attending college, class time spent on instruction, frequency of small group learning activities, participation in cooperative education/work study programs, and grading standards based on absolute achievement.
o Nature of the school *disciplinary climate*, measured by whether school rules are enforced (e.g., dress code, hall passes required, students are responsible for property damage), and whether a higher percentage of class time is spent controlling students.

o Dynamics of *student-teacher relations*, which are represented by measures of formal and informal social relations such as non-class teacher time with students (tutoring, makeup work, counseling, contacting employers of students, coaching athletics and supporting other extracurricular activities), hours assigned to formal teaching, teachers' goals for students, and students' perceptions of adult support of schools and schooling.

o The range and extent of *student involvement in school*, measured by the extent of participation in extracurricular school activities, number of leader/officer roles, grades, number of days of non-illness absence, and hours on H.S. job.

The variables representing the four dimensions of school background were derived from a variety of sources, since sociological theory is not well enough developed to confidently provide guidance about which specific school variables are most salient. Nevertheless, each measure has been linked to post-school outcomes. In addition, the survey data that will be used in this study were not designed for the purposes of this study, and consequently the school background measures are not as precise as would be preferred. To overcome these handicaps, a large number of variables is examined in preliminary analysis. Also, data were obtained from field studies to explore in greater detail some of the most important findings about the relationship between school background and work outcomes.

The primary dependent variable is wages per hour of the current or most recent job (1984). However, several other variable serve as
outcome variables in models testing indirect effects. These variables are:

- time in first job after high school,
- hours worked on current/most recent job,
- industrial sector of current/most recent job, and

It is argued that some of the variance in wages attributed to the school variables is due to the use of nontechnical work skills, which are unmeasured in the quantitative analysis. Therefore, in the field studies, an expected "outcome" of school socialization is the display of these skills (knowledge about organizational rules, where to secure informal support, and strategic use of these resources). It is argued that students acquire nontechnical skills that are beneficial at work other than those associated with conformity or compliance. Nontechnical skills contribute to successful job performance, as determined by employers.

Control variables expected to affect socioeconomic outcomes that have been reported in past research include the following:

- U.S. geographic region,
- community urbanization (rural, urban, suburban)
- size of school (total high school membership),
- occupation of first job after high school,
- job complexity (1982),
- whether participated in three forms of employer-sponsored training (on-the-job, formal on-site and off-site),
- occupational prestige of job, and

Figure 1.1 implies five sets of hypotheses, three of which serve as
the basis for the empirical research of this study. The first is that measures of school background directly influence wages as long as six years after high school, independent of family and personal characteristics.

The second set of hypotheses implied by figure 1.1 is that early employment experiences directly affect wages. The third set is that school background has a direct effect on the early employment experiences of youth, namely time in first job, time unemployed, core sector job and hours worked. The second and third sets suggest that the contributions of school background to wages operate through early employment experiences.

The basic idea underlying the three hypotheses is that certain experiences in schools help prospective workers acquire the nontechnical skills that help them stay on and be more successful at work than otherwise would occur. It is known that schools help students acquire social, cognitive and occupational skills useful for favorable socioeconomic outcomes. However, as mentioned before, the contributions from schools to the development of nontechnical (social and organizational) skills are usually overlooked in favor of the more readily measurable skills of achievement and technical expertise. Therefore, it is not clear whether school background contributes directly to a wage advantage, or indirectly through the experiences of youth in the labor force.

Although not identified in figure 1.1, a related issue in the study of school background is whether there are important differences by gender and race. Based on the theory of social capital, no differences
in wages are expected by gender and race from the cumulative effects of
class background. However, there could be some differential effects
across the types of socialization experiences. For example, women and
blacks might derive greater employment-related benefits from supportive
relations with teachers, while males (and whites) might report
advantages from discipline and from athletics and leadership
activities. However, the model does not support such detailed
specifications at this time.

Figure 1.1 implies two other sets of hypotheses: measures of
family/personal background directly and indirectly affect wages.
Although these effects will be estimated, relatively little attention
will be devoted to a discussion of them because they serve as controls.
The following chapter presents detailed discussion for the three sets
of hypotheses and the expected differences by gender and race.

DATA SOURCES

Evidence will be marshalled from three primary sources: (a)
secondary analysis of a large data set; (b) information based on
observations of 11 classrooms in three vocational education high
schools in Ohio, including interviews with 24 students and more than 15
teachers and administrators; and (c) questionnaires answered by 37
employers who have hired students in the 11 classrooms.

The population for the present study is noncollege youth during the
period between the last year of high school and the sixth year after
leaving high school. Three methods of studying this population were
employed. First, a sample of over 28,000 high school seniors was
surveyed by the National Opinion Research Center (NORC) under the auspices of the National Center for Educational Statistics. A representative subsample of nearly 11,000 cases was re-surveyed again in 1982, 1984 and 1986. This study uses data from the subsample for all youth who had not attended a college or postsecondary school as of 1986, and who had held at least one job after high school graduation for which wage information was reported. Although some of the measures are necessarily indirect, they provide information from a nationally representative sample of schools and students.

Second, to supplement the survey data, the author visited classrooms in three area vocational high schools over a period of three months. The purpose of this phase of the study was to identify subtle contributions to work outcomes from socialization experiences which occur between teachers and students that are difficult to measure in large surveys. Third, data from a sample of the school's employers provide information about how well schools are preparing graduates for employment, and which skills are more likely to be linked to success in the period immediately after high school.

SUMMARY

All young adults need to acquire a battery of nontechnical work skills which can improve their performance in work organizations. However, students who are not bound for college, especially women and minorities, are a critically important group who can conceivably benefit if they can attain these skills prior to entering the labor
market. Unplanned experiences produce much of the knowledge about organizations that workers acquire. However, some types of knowledge might be obtained in school. While it can be assumed that schools do influence some behaviors and values, there is little empirical evidence to draw firm conclusions about the contributions of schools to the acquisition of nontechnical work skills.

The theoretical model that will be used in this study specifies four critical dimensions of school background anticipated to help students develop the nontechnical skills associated with a greater measure of success at work. It contrasts sharply with the status attainment tradition, which asserts that social relations with parents and peers are the most important. It offers testable hypotheses that schools provide important socialization experiences that are not captured in measures that traditionally have been included in studies of education and career attainment.
CHAPTER II
THEORETICAL FRAMEWORK AND EVIDENCE

This chapter considers further the relationship between what is learned in school and the early socioeconomic success of noncollege youth. As explained in the first chapter, the working hypothesis is that the types of social relations youths establish in schools foster the development of nontechnical work skills, consisting of practical knowledge about how organizations work and the ability to apply that knowledge in particular circumstances. These organizational and social skills, in turn, should increase the likelihood that they will be successful on the job. Moreover, this "social relations hypothesis" logically should be especially relevant for those prospective workers who have otherwise limited formal advantages; for perhaps some of their social handicaps can be overcome if they learn in school to cope effectively with work environments that have complicated, multiple, competing explicit and implicit rules for allocating rewards (see Miller 1986). It is expected that the critical social relations will prove to be support from adults and experience with situations where it is necessary to adopt rules and regulations associated with school and work organizations. It is proposed that some of the unexplained variance in models of attainment and human capital can be attributed to the nontechnical skills learned in school.
The social relations hypothesis is derived from works on: (a) the contributions of social relations to the creation of human capital (Coleman, Hoffer and Kilgore 1982; Coleman and Hoffer 1987; Coleman 1988), (b) the importance of formal socialization for work organizations (Corwin 1986; Valli 1986; Claus 1986) and (c) the embeddedness of economic activity in social relations (Granovetter 1974, 1983, 1985). The underlying rationale is that careers are influenced by interpersonal interactions and information about work organizations (Bourdieu 1977; Collins 1979; Miller 1986; Campbell 1988), as well as by technical skills and demands. Case studies indicate that knowledge of organizational procedures can be useful for workers in lower level organizational positions (Crozier 1964; Kusterer 1977; Burawoy 1979). Youths can obtain such knowledge when they establish relationships at school that help them acquire the skills to navigate within the boundaries of the formal school curriculum. As will be discussed below, the contributions from these relationships are especially critical during the early work career and for those not attending college.

The goal of this chapter is to describe a model of the high school socialization process leading to employment. This model has several basic characteristics. First, it includes variables ignored in status attainment and human capital theories, which are preoccupied with years of schooling or technical skills. Second, it stresses school social relations that help prepare individuals to cope with work organizations. Third, it extends research on the differences between the economic rewards achieved by different gender and racial groups.
OVERVIEW OF THE CHAPTER

This chapter is organized as follows. The first section reviews research on the value of prior socialization for work from studies of employment. The focus is on what is known about acquiring social and organizational skills for work. The next section reviews the contributions and limitations of status attainment and human capital theories pertinent to the problem. The third section presents theoretical and empirical evidence about the value of social relations in schools and their "social capital" resources that are likely to be important in the development of nontechnical skills for work. The last section discusses the model for the present study and presents an overview of the research plan.

WORK SOCIALIZATION

Case studies conducted in workplaces suggest that the most successful employees are capable of using whatever resources are available to protect their own interests. The principal resources are organizational knowledge, which is needed to anticipate non routine events, to weigh costs and rewards involved in optional relationships, and the like; and the ability to use this knowledge strategically as particular circumstances arise (Crozier 1964; Aronowitz 1973; Burawoy 1979; Kanter 1977; Kusterer 1977; Edwards 1979; Valli 1986; Miller 1986; Borman and Hopkins 1987). Such nontechnical social and organizational skills are not usually explicitly taught as such. It appears that these skills either are usually acquired at random from
unplanned events on the job (Kusterer 1977; Corwin 1986), or they are learned in the course of social relationships developed while in school (Hargreaves 1977). Hargreaves' study, in particular, lends credence to the proposition that schools do provide individuals with information of this type and experience in applying it. Moreover, on a more general level, we know that in addition to promoting intellectual and technical skills, schools also instill relevant values and behaviors.

On the other hand, a labor process perspective suggests that school social relations are irrelevant because "consent is produced at the point of production," independent of schools, family life and other non-work interactions (Burawoy 1979, xii). Critics of this view emphasize, however, that labor process and consenting worker relations are not the entire story. The noneconomic dimension of personal pride in achievement, and how workers learn to become assertive with the boss and others must also be considered (Kusterer 1977). Indeed, those who favor a cultural reproduction perspective stress that ideologies are negotiated, contested and re-worked in social settings (Edwards 1979; Valli 1986).

In summary, there is limited evidence and competing views about the contributions of schools to post-school outcomes. Nonetheless, studies of occupations provide some clues about how people acquire nontechnical skills for work. Some of these insights will be summarized next.

Socialization into Occupations

First, the kind of job one holds can inhibit or foster autonomy and decision making skills. An example of this effect can be seen when a
young woman, especially one who is not strong academically, is given a chance to learn practical knowledge about work (Greenberger and Steinberg 1986). The degree of task complexity, in particular, leads to intellectual flexibility (Miller et al. 1983; Kohn and Schooler 1983). Second, opportunities to gain job training relevant to the demands of higher positions can be important in entry-level jobs (McPartland et al. 1986). Job training can be especially important for decreasing the subsequent unemployment of young women (Griffin, Kalleberg and Alexander 1981). Third, jobs sometimes give young workers a chance to take risks and make decisions (Hamilton 1987). Also, youths who take jobs having responsibilities that can be characterized as "discontinuous" with previous experience (Hamilton and Crouter 1980) may be in a better position to develop a broader perspective on work organizations.

Ethnographic studies of female high school clerical students conducted by Valli (1986) and Gaskell (1985) demonstrate that workers need knowledge about organizations. Valli (1986) concluded that it is hard for young workers to modify social relations on the job because they are usually highly institutionalized. Moreover, the dynamics of authority relations (e.g., communication with teachers and work supervisors), exchange relations (personal pride in task completion and serving customers) and gender relations (choice of business coursework and clerical jobs) were peculiar to unique organizations. Therefore, workers need a reservoir of generalized knowledge to prepare them for diverse possibilities. She suggests that schools must provide women with more than salable skills and good work habits ("training for
economic efficiency"). They also need problem-solving skills and
knowledge about work issues, such as how tasks are divided and how
workplaces are organized. Information about training and fringe
benefits, salary reviews, and modes of thinking in organizations is
important.

However, this body of research is incomplete and overlooks some
important considerations. Most research on occupations and
occupational socialization has focused on college-educated workers
(Hamilton 1987, p. 288; however, studies by Greenberger and Steinberg
[1986], Gaskell [1985] and Valli [1986] are notable exceptions). Perhaps more
important, research on socialization for employment has
focused on occupational rather than organizational demands, even though
socialization for organizations is distinct from and, as suggested from
case study data, more important than socialization for a job (see
Corwin' 1986).

Socialization into Organizations
There are two groups that are likely to derive special benefits
from nontechnical skills acquired prior to employment.

First, such skills are probably more critical to young noncollege
workers than to those who go to college. Some writers charge that non-
college youth have acquired an image of being unambitious (The William
T. Grant Foundation 1988). Younger workers who have not attended
college are probably more vulnerable than older ones. Youthful workers
are likely to suffer socioeconomically when they do not go out of their
way to present themselves as productive, adaptable employees with a
sense of how to get along in the work setting (Borman and Hopkins 1987,
It is likely that they have been further handicapped because they had less formal training in organizational strategies and competencies, and because they tend to enter occupations unlikely to foster the development of these skills. Many jobs held by adolescents are largely age segregated, educationally irrelevant and have little to do with the interests and capacities of youths (Greenberger and Steinberg 1986). Nonetheless, such jobs do affect wages in later jobs.

The major reason is that individuals with less education and work experience are likely to take jobs in the secondary labor market that conventionally require little training and offer few opportunities for advancement and little or no job security (Doeringer and Piore 1971; Hodson and Kaufman 1982; Parcel 1987). Many of these workers are adolescents and young adults, who frequently shift jobs and are believed to "flounder" in the early career (Osterman 1980; Namboodiri 1987).

But while young, noncollege workers often become located in disadvantaged labor markets, relevant research sometimes has been less than helpful in shedding light on the structural problems faced by noncollege youths. In a comprehensive review of labor markets for youths who are "out of school", Parcel (1987) stresses that some studies of "careers" have been guided by structuralist perspectives, such as dual labor market theory. Although collectively the individualistic and structuralist perspectives now share some common territory, Parcel concludes that the literature on careers is moving away from structuralist approaches. Nonetheless, an important implication from the review for the present study is that results for
one subgroup, such as adults, can provide important clues about economic predictions for another, here noncollege youths (p. 50).

The second group who could especially benefit as more is learned about how nontechnical work skills are acquired and used are women, since access to employment opportunities differ considerably between the sexes. For example, there is evidence that control of information and autonomy at work is associated with still further opportunities to gain positions of authority (Spaeth 1979). Compared to white males, however, white females receive little earnings advantage when they attain positions of formal authority in work organizations net of education and experience (Parcel and Mueller 1983). Formal institutional barriers, such as discrimination in promotion systems or lack of access to training, prevent many women from advancing (Roos and Reskin 1984). For women working at jobs in lower echelon organizational positions, the socioeconomic consequences are particularly severe. This is because they lack opportunities to obtain additional training, job information and access to higher paying "male" jobs (Wolf and Fligstein 1979; Roos and Reskin 1984). Black women, in particular, are economically disadvantaged by lack of access to supervisory positions and firms with authority hierarchies (Parcel and Mueller 1983).

In addition to the institutional barriers, women suffer informal disadvantages. They often are excluded from the power networks controlled by males (Kanter 1977; Hennig and Jardim 1977; Dexter 1985; Miller 1986), and they report restricted personal networks at work more often than do males (Mainiero 1986; Campbell 1988). Compared to males,
women tend to be acquiescent and seek out advice rather than use manipulation or coercion. Or, they tend to rely on personal solutions to problems at work, such as the woman who aspires to work for a boss whose status in the organization reflects favorably on her (Kanter 1977). Such tactics depict women as ill-adapted to the demands of the workplace.

Given these institutional and informal barriers confronting women, it is not surprising that status of first job is the most important predictor of their subsequent status (Sewell, Hauser and Wolf 1980; Raelin 1982). The status of the young woman's first job, in turn, is associated with coursework and work experience directly related to that job (Rumberger and Daymont 1984; Gutek, Larwood and Stromberg 1986). However, the relative importance of coursework and experience has not been sorted out. For example, female graduates from high school business and office vocational programs obtain a wage advantage over their general curriculum peers (Grasso and Shea 1979; Woods and Haney 1981; Gustman and Steinmeier 1982; Campbell et al. 1986). Yet, it is unclear whether this advantage is due to acquisition of job-related technical skills, to part-time work experience, or to nontechnical skills that have been acquired in connection with these programs, such as discipline, cooperation and self-sufficiency. For example, although clerical jobs provide an initial wage advantage (Grasso and Shea 1979; Woods and Haney 1981; Campbell et al. 1986), Greenberger, Steinberg and Ruggerio (1982) found that these jobs also provide the fewest opportunities for taking initiative and for being autonomous. Retail jobs, by comparison, gave workers more chances to develop
autonomy and to take charge of their daily work routines.

Although the earliest and most pervasive socialization influences occur in the family, schools reinforce these effects, and early employment experiences and media influences contribute additional influences. Marini and Brinton (1984, pp. 222-223) point out that sources of socialization affecting the occupational preferences of women include (1) curriculum (tracking and vocational education); (2) government legislation (sex equality specified in the Vocational Education Amendments of 1976 and the Perkins Vocational Education Act of 1983) and, to a lesser extent, (3) guidance and counseling, sex stereotypes in educational materials, and the availability of same-sex role models. They note that research seems to be much more sparse on the role of early employment and on sex stereotyping in the media.

In summary, then, noncollege youth entering the labor market, and in particular women and other minorities with special disadvantages, probably would benefit most from nontechnical work skills that could be fostered in schools. However, it is not being assumed here that everyone wants positions of authority that allow independence and that carry heavy responsibilities. Dreeben (1968) points out that students do not necessarily like independence when teachers do give them the opportunity to make their own decisions. Many see it as a heavy burden of responsibility and some feel inadequate to handle it (p. 84). Claus (1986) reports that some students in high school work preparation programs actively avoid assuming a problem-solving or managerial role in classes, preferring instead that the teacher or peers take charge.

Yet, students must demonstrate at least a basic level of conformity
before teachers assign them to activities that foster independence. Oakes (1985) notes that all youths learn attitudes toward authority, direction-taking, punctuality and passive participation. She concludes that young workers must first demonstrate skills associated with conformity (basic technical skills, cooperation, and knowledge about organizational procedures), and then they are given chances to acquire skills associated with independence (e.g., self-direction, active participation, self-reliance and critical thinking). Otherwise, the consequence is perceived as "failure," which leads to more unequal treatment.

**Status Attainment and Human Capital Theories**

The status attainment model proposed by Blau and Duncan (1967) postulates that parental status affects the level of schooling one acquires, which in turn affects the status of one's first and current jobs. Their model has been extended to include the influence of significant others such as parents, friends, teachers and counselors. This revised Blau-Duncan model, usually called the "Wisconsin model," also includes measures of ability (test scores) and academic achievement (grades) as mediators of parental background and ability (Duncan, Haller and Portes 1968; Sewell, Hauser and Olendorf 1970; Duncan, Featherman and Duncan 1972; Sewell and Hauser 1975; Alexander and Eckland 1975; Sewell, Hauser and Wolf 1980; Hauser, Tsai and Sewell 1983). In the Wisconsin model, family background and ability influence educational and occupational aspirations, parental and teacher encouragement to attend college, and peer plans for college. These social-psychological measures affect the level of schooling one
achieves.

But, status attainment models do not address the effects that schools might have beyond what is reflected in test scores, grades in school, and educational expectations for college. Moreover, they cannot explain some outcomes. For example, although grades influence whether or not one obtains the job (Sewell et al. 1980; Bills 1988), they apparently have little or no effect on subsequent socioeconomic status or unemployment.

The economists' theory of human capital postulates that the primary contributions from schooling are due to investments the individual makes in years of education, acquisition of technical expertise and job information. The benefits are due primarily to higher levels of education and years of job experience. The basic argument is that individuals invest in these "personal goods" based on perceived options for converting them into economic advantage (Becker 1964; Mincer 1974).

The concept of human capital, like the attainment model, does not address employment structures. Nor does it describe the types, sources and uses of non-technical skills needed to do an effective job. While the vague notion of "job information" could conceivably be stretched to encompass this dimension, it typically has not been used in this way. Hence, status attainment and human capital theories are not particularly helpful for understanding the issues being raised here, because they focus on characteristics of individuals, not on the structures of education and employment.
Contributions of the Present Study

Other than some case studies, the relationship between non-technical work skills learned in school and success in employment has received almost no research attention. Although studies of occupational choice and socialization provide important insights, they are of limited use for understanding how people are socialized into work organizations.

Traditional attainment and human capital models do not adequately describe either the school socialization process or the early employment outcomes of noncollege workers. Both models exclude any measures of socialization not captured in years of schooling. Since there is a great deal of unexplained variance in empirical results based on these models, it is conceivable that some of the variance might be attributed to the organizational systems of school and work, and to how workers operate within these systems. Indeed, scholars complain that attention should be paid to schooling outcomes other than test scores and technical skills (Corwin and Namboodiri 1989; see also Goodlad 1984; Corwin 1986). A theoretical model is presented in the next section that attempts to retain the basic points from the individual-level theories while grounding them more fully in research on the structures of school and work.

SOCIAL COMMUNITIES AND SOCIAL CAPITAL

Recently, a number of studies in sociology and education have turned their attention to the study of social organizations and
individual outcomes based on theories of "social action" (see Coleman 1986). These studies describe the contributions toward school and/or work from contact with those higher social status (DiMaggio 1982), from membership in social class, gender and race/ethnic groups (Farkas et al. 1987), from ongoing social relations in which economic activity arises or is "embedded" (Granovetter 1974, 1983, 1985), and from supportive schools (Coleman, Hoffer and Kilgore 1982; Coleman and Hoffer 1987; Coleman 1988). Common themes across these studies are that (a) social relations are a key determinant of individual outcomes in school and work life, and (b) the nature of these social relations is equally, if not more, important than are the individual-level measures of "success" more commonly investigated. It is instructive to review in somewhat more detail the studies of social relations associated with social capital that are pertinent to the present research.

Coleman, Hoffer and Kilgore (CHK, 1982) used 1980 base year data from sophomores and seniors in the High School and Beyond (HS&B) survey. They found that net of family background (parental education, income and race/ethnicity) and school size, students in Catholic schools showed higher performance of about one grade level on standardized tests of basic skills than did students in public schools. Comparable net between-sector differences were also found for educational expectations and aspirations. Because CHK noted higher rates of attendance and academic engagement (more homework and more rigorous coursework) in Catholic schools, they concluded that the way schools function -- through level of teacher interest and the quality
of discipline -- creates higher rates of student involvement. A particularly striking finding was that blacks, Hispanics and students with less well-educated parents attending Catholic schools especially benefited. However, CHK noted that public school students received advantages from employment outcomes. They believed these effects were due to greater vocational resources and opportunities, which provided connections to the world of work.

In 1987, Coleman and Hoffer extended their work to focus more systematically on whether comparable sectoral differences held for post-school life, and whether outcomes of students from disadvantaged and broken homes depended on the kind of high school they attended. They relied on the HS&B base year data and the first two followups (1982 and 1984), and focused on employment success (time in first job and wages for the seniors going directly to work) and college success (survival and grades). Few net sectoral differences were found for employment outcomes, although grades, discipline and homework had some influence. They noted that key factors were excluded from their study leading to the low explained variance (5%). Nonetheless, they believe that their findings reaffirm the value of embedding students in adult-directed communities, especially youths less likely to do well in post-school life.

Other scholars are interested in "cultural capital." One form is available from contacts with higher status individuals (DiMaggio 1982). A non-high culture form is provided by supportive relations in families and reinforced by social interactions with teachers (Farkas et al. 1987). Together, these studies clarify how resources from personal
contacts help individuals navigate through formal, rational systems. They also suggest that more subtle processes of socialization that are typically ignored in research could help to explain social mobility.

Social Capital and Social Communities

The basic assumptions of "social capital" apply to human groups, not individuals. Social relations are viewed as resources. They accrue to individuals but are bestowed on them by virtue of their membership in organizations. Some take the form of "public goods" (Coleman and Hoffer 1987; Coleman 1988). For example, when people can trust one another, everyone benefits. Examples of social capital include (1) obligations and expectations and the extent to which obligations are repaid, including the density of mutual obligations; (2) sources of useful information and their availability (sources are known and individuals with information are accessible); and (3) consistent enforcement of norms supporting mutual obligations and assistance (Coleman 1988, pp. S102-105). Of course, individuals vary in the extent to which they repay obligations and internalize such norms. But as Coleman (1988) stresses, unlike exchange theory, this theory is not based on individualistic responses. It is based on the interdependent behaviors of individuals, that is, on the relationships themselves.

Two types of social capital have been identified by Coleman and Hoffer (1987) and by other scholars (e.g., Farkas et al. 1987). Family social capital consists of resources, such as help and encouragement available from an intact family, and from time the adults spend with youths. School social capital includes support from teachers, other
school staff and the community of adults associated with a school. School social capital is especially important for students from broken homes and disadvantaged backgrounds, whose family social capital is often limited or nonexistent. Moreover, Coleman (1988, p. S100) argues that social capital can lead to the creation of human capital: "human capital is created by changes in persons (through social relations) that bring about skills and capabilities that make them able to act in new ways." The theory is summarized in the following informal path diagram:

School Social Capital ----> Human Capital ----> Rewards

Coleman and Hoffer (1987) have identified two types of communities in which school social capital is likely to be available to students. They are called "functional" and "value" communities. A functional school community links parents and children in the school, providing "intergenerational closure" between the school and community that reinforces norms and expectations. A school value community is largely composed of close social relations within the school, although other social relations are not necessarily excluded. The distinctive differences of these two communities are described further below.

"Functional Communities." A "functional school community" is one in which critically important values and norms are established and reinforced by adults in the school and the surrounding community. Schools with a religious basis, such as Catholic schools, can be said to have "intergenerational closure," that is, consensus and
communication among parents and other adults about the important values. Intergenerational closure provides students with forms of social capital from the community at large that families alone cannot always provide. For example, students are less likely to drop out of Catholic schools, regardless of family economic and religious background, ascriptive characteristics, and lack of family social capital. Coleman (1988) concludes that adult support, sustained and directed by the formal organization, provides advantages to youth, and ensures that the advantages are not destroyed as by-products of other actions (p. S118). Membership in this functional community is critically important for youths who do not receive this support elsewhere (Coleman and Hoffer 1987; Coleman 1988). They can learn important rules of conduct from norms and sanctions imposed by the community, even though such norms are not stressed in their own families.

There are some problems with the concept of functional school community as defined by Coleman and colleagues. First, the assumption that there is a higher level of social capital in Catholic schools is based on a stronger statistical relationship net of family income and parental education between (a) academic and disciplinary climates and (b) higher cognitive test scores in Catholic schools than in public schools. The thesis that school social capital arises from social relations with adults has not been directly tested. Nor has the way social relationships affect human capital been clearly spelled out. Second, network closure is inferred from the presumed close-knit nature of religious groups. It is operationalized only indirectly, as the
number of times a student changed schools.

However, the fundamental argument advanced by Coleman and colleagues is appealing, in part because it attempts to overcome some of the limitations of individual-level approaches, which have been overutilized in educational studies (Corwin and Namboodiri 1989). It would, therefore, be worthwhile to try to adapt it for other settings. Coleman and Hoffer (1987) mention another type of school community that could also provide social capital. Although they argue that it is not as effective as a functional community, the idea is worth pursuing for two reasons: (a) it is based on fundamental sociological notions about the traditional importance of community values, and (b) the results can inform both theory and practice because they are applicable to a majority of schools and students. They call this second type of community a "value community."

"Value Communities." Social integration within a value community is possible when parents, school staff and others associated with a school hold consensual values about education and childrearing. Even when parents do not share other values, nor interact with each other as they do in the functional community, they can share norms about education. Networks among parents and between parents and school staff may not be available; shared values may be limited only to certain aspects of school life; and there may be no viable social organization beyond the school to serve as a coordinating agent. Yet, such communities exist, and guide the socialization activities of their youthful members. Examples include private boarding schools, small rural schools existing in relative isolation, military academies and
magnet schools.

Still other value communities might be found in residential youth projects, independent vocational high schools, and area vocational schools serving students from several "feeder" schools. The success of the Job Corps, one of the most effective youth programs to date, has been attributed largely to taking youth away from their unsuccessful home and community lives and providing job training and socialization for employment in residential centers (Hamilton 1987). Because vocational schools, especially those that serve several schools, are in competition for students, they must present an image of support and the potential to better prepare youths for work than the home schools.

Related Theories and Evidence

Research on schools and schooling has emphasized four dimensions of school life that are of special importance in studies of what youths learn in school. These dimensions are (1) the extent to which schools emphasize academic performance; (2) the extent to which the disciplinary climate manages or circumscribes the behaviors characteristic of a "youth culture"; (3) the nature of social relations, particularly between students and their teachers; and (4) schoolwide extracurricular events, including interscholastic and intermural athletic events, awards ceremonies and honors activities (Rutter 1983; Coleman and Hoffer 1987; see also Rutter et al. 1979). Research in these dimensions of schools can provide important insights about how school social relations are related to student outcomes. Therefore, some of the more pertinent studies will be summarized below.
**Academic Emphasis.** Extensive reviews of the literature on curriculum tracks in American high schools have been presented elsewhere (Rehberg and Rosenthal 1978; Oakes 1985; Gamoran and Berenda 1987; Hotchkiss and Dorsten 1987). The weight of evidence suggests that students from schools having an academic emphasis tend to do better scholastically than when they attend schools heavily influenced by athletics or popularity (Coleman 1961; McDill and Rigsby 1973). The fundamental debate addressed by studies of tracking is whether individuals are allocated to curricular programs (e.g., college preparatory, vocational education) on the basis of their status backgrounds or their merit.

Opponents of tracking maintain that it reproduces the hierarchical stratification system in society and closes off relationships among students and teachers associated with different types of curriculum (Hargreaves 1967; Rosenbaum 1976, 1980; Oakes 1982, 1985; Boyer 1982; cf. Alexander and Cook 1982). A similar argument has been made by critics of schools and schooling who are concerned about the hierarchical nature of education and work. They charge that when job training rather than academic skills is stressed for working class youth, students learn to be docile and compliant to authority (Grubb and Lazerson 1974; Bowles and Gintis 1976; Grubb 1984). In short, social relations in schools are portrayed only as reinforcing status quo values and behaviors. Employers can count on applicants for lower echelon jobs to be compliant.

have provided in-depth studies of the youth culture in U.S. high schools. Powell et al. found that in attempting to offer courses designed to capture students' interest, schools have created "shopping mall high schools." Students can avoid a more rigorous sequence of academic study by choosing courses from a broad range of curricular areas and from "specialty shops," such as vocational education and music. Moreover, choice of courses is often based on the advice of friends, who recommend "easy" courses with few requirements. Yet, the researchers did find that students who took a sequence of courses in a "specialty shop" area were more likely to acquire some support from interested teachers. Most other students were part of a larger "undifferentiated mass" perceived as "unspecial."

Some issues have been overlooked in research on academic achievement, especially those associated with the concept of schools as value communities. Corcoran (1985) found in a review of key studies of effective schools that strong parental support and involvement were critically important for the way schools operate. More important, he speculates that what is really important is the way parents get involved, and the degree of consensus between them and school authorities on issues such as goals, curriculum and methods (p. 86).

**Student-Teacher Relations.** Scholars point to the importance of teacher-student relationships in shaping student behavior. Boocock (1978) provides a thorough review of literature about the social organization of classrooms and students' attitudes, behaviors and academic achievement. She concludes that teachers' relationships with students and their attitudes shape role expectations for students, with
classrooms increasingly becoming settings for collaborative interaction and greater cooperation between student and teacher. McNeil (1986) argues that the teacher has the ability to promote more independent behaviors in students, or to "spoon-feed" them material. Moreover, Rutter (1983) points out that students seem to benefit most in solving personal and school-related problems when they consult "ordinary teachers" rather than counselors and other staff who might not know them as well (see Hotchkiss and Dorsten 1985). Metz (1978) points out that consensus between students and teachers on the goals of education is fundamental. Yet, there is some disagreement in the literature about how teachers' goals for classroom control versus cooperation affect student outcomes.

Good (1983) found from his review that (1) teachers working with lower ability students tend to expect too little from them; (2) classes with lower ability students tend to be more frequently interrupted by other students; and (3) lower ability students have the least adaptive ability, so that different methods of teaching courses such as math are particularly disruptive to their learning. He suggests that additional research should be undertaken to determine the kinds of student-teacher relations that promote success in classroom and other settings, such as in individualized and small-group practices, and which types of students (and teachers) benefit from these patterns of instruction. Etzioni (1982, 1983, 1989) stresses that successful performance in school, as well as in post-school life, is promoted by the ability of teachers to compel students to perform the relevant tasks.
Yet, Farkas, Grobe and Sheehan (1987) have observed that the rewards teachers in middle and high schools give for effort and deportment are linked to observable academic performance. They attributed the academic success of females over males, as reflected in course grades, to superior personal organization and homework. Grade differentials between Anglos and blacks, Hispanics and the poor were related to coursework mastery of the former. The researchers confined their study to academic achievement and the data were cross-sectional. However, it provides further evidence of how important it is to understand relations between students and their teachers, and how teachers serve as conduits and barriers to subsequent performance.

In summary, there is enough evidence to warrant the assumption that relationships between teachers and students can have significant short- and long-term consequences for performance in schools and beyond.

The Disciplinary Climate (Control of the "Youth Culture"). Empirical findings about the relationship between peers and adolescent behavior have established the importance of the "youth culture" in educational research. Coleman (1961) reported that for females and for males, popularity and athletics were problematic in schools, in that both values diverted attention away from academic interests. Rutter et al. (1979), DiPrete (1981) and Coleman and colleagues (1982) reaffirm the value of discipline and order in high schools.

But, Willis (1977) reports from his study of working class males in London that students believe schools do not provide experiences consistent with their beliefs about the world and their perceived futures in the trade shops where they worked. They not only rejected
the school norms, but also they chose people like themselves as friends who scorn hard working, conforming peers. In her study of working class Canadian females taking business courses, Gaskell (1985) does not provide similar findings concerning discipline. But, she does concur that subtle and more overt forms of control are present in schools. Clerical jobs were preferred because they were considered to be 
"practical choices" for women, a belief subscribed to not only by other students, but also by their teachers. Most studies of the disciplinary climate have concentrated on the relationship between climates and academic achievement (e.g., DiPrete 1981; see Hotchkiss and Dorsten 1985). However, as discussed above, disciplinary problems and other aspects of the "youth culture" have some influence on wages and longevity of first job, as well as on grades.

**Student Involvement.** There is some evidence to suggest that extracurricular activities help some individuals acquire useful social resources and personal support. A study of Wisconsin males concludes that expectations of significant others (parents and best friends) mediate the effects of high school athletics on job status and income fifteen years later (Otto and Alwin 1977). The researchers suggest that athletics might teach (males) transferable interpersonal skills, introduce them to contacts and information channels beneficial to careers, and provide an early definition of success. 7

However, most research on extracurricular participation has focused only on scholastic achievement and delinquency. Moreover, the findings from these studies must be viewed cautiously. Most lack a theoretical
framework, have problems with methods, and tend to overinterpret their findings (Holland and Andre 1988; Brown 1988). Also, the bulk of this research is limited to extracurricular participation in the 1950s and 1960s for white males in non-metropolitan areas, usually for athletics (Brown 1988, p. 110). Perhaps a more fruitful approach is to examine a range of student involvement measures, from skipping school to employment to taking part in extracurricular and leadership activities.

**Summary and Critical Review**

It is clear that competing views dominate the literature on social relations linking school and work. From one perspective, social relations in school are said to be dysfunctional, because they teach behaviors and attitudes to carry out the directives of more powerful others (Braverman 1973; Warnath 1975; Bowles and Gintis 1976). From a second perspective, ideologies and practical choices are negotiated, contested and re-worked in social settings (Willis 1977; Edwards 1979). From a third view, school social relations are irrelevant to the consent workers develop on the job (Crozier 1964; Burawoy 1979).

A fourth perspective has also been discussed above. It differs from the first three because it suggests that social relations are vitally important since they inculcate the norms and behaviors necessary for success in post-school life (Dreeben 1968; Etzioni 1982, 1983, 1989; Coleman and Hoffer 1987; Coleman 1988). The "moral socialization" perspective, too, has been challenged, because it ignores the labor process and the development of worker consent, and because it produces an "oversocialized" view of individuals who are either perceived as developing "capacities" for conduct or as "objects
transformed by processes to which they fall prey" (Valli 1986, p. 15). Yet, groups bestow resources in the form of social relations; thus, any perspective must consider the value of group memberships and the structural aspects of social organizations.

At the present time, a moral socialization perspective such as social capital must be supplemented by other theories. This is because many of the related studies (e.g., the school climate and effective schools research) are atheoretical or offer post hoc speculations, so that conclusions are drawn primarily from empirically-derived levels of statistical significance. Also, there is a tendency for socialization research to take a developmental perspective, which obscures contributions from components of the educational system, such as classrooms, schools, communities and states. To date, little is known about how individual-level skills evolve from social relations with teachers and others. Even less is known about how what happens during the school years is related to employment outcomes. Others have criticized the neglect of outcomes other than test scores and technical skills (Corwin and Namboodiri 1989; see also Corwin 1986), and have pointed out that school attributes should be studied as interrelated entities (Rutter et al. 1979; Namboodiri, Corwin and Dorsten 1989).

In conclusion, although the above theoretical perspectives and evidence provide a rich source of information about socialization, only a perspective such as the theory of social capital suggests that schools are important socialization settings having long term consequences. Students acquire academic, technical and other skills as outcomes of structural arrangements and teaching processes.
Nonetheless, because of the inadequacies noted, this perspective at the present time must be supplemented by other theories. The model presented below incorporates theories and evidence about the contributions from socialization in schools pertinent to employment outcomes with findings from research on work socialization.

MODEL FOR THE PRESENT STUDY

There are several approaches one might take to examining the effects of socialization in schools on socioeconomic outcomes. One is to obtain estimates from large-scale survey data. However, survey analyses have had limited success in identifying the mechanisms of stratification operating within schools (Gamoran and Berends 1987). Another approach is to conduct field studies of relationships between teachers and students, and between students and employers. A third approach is to integrate findings from both field and survey methods (see Sieber 1974; Reichardt and Cook 1979; Jick 1984; Fielding and Fielding 1986; Gamoran and Berends 1987). To date, only a limited number of studies in education have elected to include findings from both quantitative and field data systematically (e.g., Goodlad 1984; Oakes 1985; Claus 1986). On the grounds that the most fruitful way to understand the effects of socialization is to incorporate findings from both approaches, the present study adopts this strategy. Because the study of social capital resources in schools is relatively new, qualitative data might provide important insights that could be used to provide direction for future quantitative investigations.
Quantitative analysis will be used to test hypotheses about four dimensions of schools: academic emphasis, student-teacher relations, the disciplinary climate, and student involvement. Ideally, it would be preferable to be able to test a broad range of characteristics representing forms of social capital from social relations (e.g., norms, sanctions, expectations, and sources of information). Lack of a full complement of measures precludes this approach at the present time. However, the argument that social relations in school are important determinants of early employment outcomes can be tested using available measures in survey data. Using information from field studies of students, teachers and employers, some steps can be taken to identify sources and possible contributions of school social capital.

The measures of social relations and resources available in survey data are necessarily indirect. Therefore, field studies are undertaken. Field data allow a more indepth study of schools consistent with the concept of social capital. Because social capital is an organizational resource emerging from the behaviors of teachers, the major focus in the field research will be on student-teacher relations. Of particular interest is the nature of social integration that is possible in schools as value communities, where adults do not necessarily interact or hold more than one or a few values in common.

Review of Model and Hypotheses

The model and hypotheses for the present study were introduced in chapter 1 (see figure 1.1). However, they are reviewed again here.

Hypotheses about Control Variables. Although the interest in the present study is on how social capital influences wages, there are
well-developed theoretical arguments from the status attainment, human capital and structuralist approaches about the economic contributions from other social structures. In figure 1.1, the effects of status and human capital variables are included in family and personal background. Although not shown in this figure, it is expected that women and blacks will report lower wages than their peers who are male or white (discussed below). Controls for labor market characteristics are included in the discussion of early employment experiences below.

**Status Attainment.** Based on the findings from studies in the status attainment and human capital traditions discussed above, it is expected that higher parental status, occupational aspirations and ability will have positive effects on wages. Although not directly associated with models of attainment, marital status can be considered an achieved status. Being married will be advantageous economically for males but not for females.

**Human Capital.** The more time spent in employer-sponsored job-specific training, the higher the wages. Conversely, offsite training (tuition reimbursement) is expected to be negatively associated with wages, because it is less likely to be firm-specific than training at the place of employment. Total time employed should be positively associated with wages, particularly for minorities.

**Hypotheses about Social Capital Resources.** The first set of hypotheses suggested by the model is that school background measures directly influence wages in the early career, independently of family and personal characteristics. The second set anticipates that early employment experiences of youth have a direct influence on wages. The
third set is that early employment experiences mediate the contributions of school background effects. Together, the second and third sets of hypotheses test whether contributions from school background on wages operate through early employment experiences. Expected wage effects for components of school background and early employment experiences are discussed below.

**Academic Emphasis.** Based on the theory of social capital, students whose schools and curricular programs stress achievement are more likely than other students to acquire information and learn how to use institutional resources. This is because teachers and other adults probably have a generalized approach to how students are dealt with that fosters purposive action on behalf of their students.

Therefore, an academic emphasis in schools could help students learn the following: how to work under deadlines, how to motivate a group member who doesn't want to contribute, and how to organize tasks. On the other hand, vocational programs and cooperative education could be even more effective than academic track in teaching cooperative strategies for dealing with work.

**Student-Teacher Relations.** It is expected that the greater the level of social capital available to students in the form of supportive social relations with teachers, the more integrated they will be into the school and the more fully they will internalize the norms associated with success at work. Social capital in schools is most likely to be provided by teachers, because they spend more time with students in and out of class. Parents could also play a role in how well student internalize the norms, however.
Women and blacks might be most likely to benefit economically from informal socialization experiences with concerned and interested teachers. However, the information available to date about the relationship between social capital, nontechnical skills and success at work does not allow firm predictions by gender or race. It is reasonable that the results of previous research on women could be applicable to other minorities, such as blacks.

The Disciplinary Climate. The effects of peer influences in schools have received much research attention. Most empirical findings suggest that a student subculture based on physical prowess and popularity is detrimental to formal learning, and presumably to post-school success. School rules that are enforced concerning student behavior in the school organization should be beneficial in the workplace. Although perhaps useful for establishing a learning environment, there is conflicting evidence about whether or not stricter forms of discipline help students learn compliance or become innovators and rebels.

Student Involvement. Examining the range of involvement in schools is likely to be instructive, because different forms of involvement are expected to be beneficial for different students. For youths who do not excel in academics, involvement in extracurricular activities could be important. There is some evidence that athletics is of value in obtaining information and contacts associated with work. However, the contributions from athletics might be largely for males. Leadership in school extracurricular activities and part time employment could be beneficial to minorities, especially women. Past
research suggests that part time employment (which actually represents student noninvolvement in school) can be an alternative to extracurricular participation in helping youths learn nontechnical skills. Absence is expected to be detrimental for all outcomes.

Early Employment Experiences. Based on the argument that "floundering" and job instability in the early career is detrimental, a positive relationship is expected between time on the first job and wages, between hours on current job and wages, and employment in a core sector job and wages. However, the higher the unemployment, the lower the wages. Several variables are included in this block as controls. A first job in the clerical occupations should be associated with higher wages for women. Lower wages might be associated with jobs with lower levels of substantive complexity (time with things).

OVERVIEW OF THE STUDY

Chapter 3 describes the samples, data and methods of analysis. Chapter 4 presents the findings from the quantitative analysis. It contains tests of hypotheses about school background variables based on data from noncollege youth. Separate analyses are presented by gender and race. Chapter 5 relies on data of field studies of young women in high school business vocational programs. It focuses on social relations with teachers and the nontechnical skills women acquire for work in one occupational preparation program. Chapter 6 summarizes the findings and evaluates the usefulness of the theoretical model.
CHAPTER III
DATA AND METHODS

This study employs two empirical approaches commonly used in sociology: quantitative analyses of survey data and qualitative case studies. Quantitative analysis has the advantage of providing point estimates of population parameters and permitting tests of hypotheses. However, it does not reveal the underlying mechanisms of interest in the present study. To fully understand the contributions of school background measures such as student-teacher relations toward the development of nontechnical work skills requires in-depth information from teachers, students, and employers. Without the type of investigation afforded by the field study, indicators of educational experiences in large-scale datasets become little more than "vacuous measures" of actual socialization processes (Corwin and Namboodiri 1989). Therefore, field studies were used to capture details about specific educational experiences and link them to the quantitative findings.

However, there are few studies of schooling upon which to base a research project that combines quantitative and qualitative information. With the advent of national surveys, longitudinal data of cohorts have overcome many limitations imposed by cross-sectional data in the study of school and work relationships. Yet, some of the most essential information is still lacking in survey datasets, namely data describing the actual micro-processes of social interactions, and their
relationships to post-school outcomes. Few studies have attempted to integrate field and survey data to obtain such information, although the need for such strategies in social science research has been emphasized repeatedly (e.g., Sieber 1974; Finsterbusch 1976; Jick 1984; Gamoran and Berends 1987). Usually, educational researchers either conduct analyses on survey data or obtain observational data for one or a few schools or programs.

Another limitation of most extant research is that data are seldom available to link specific educational experiences to actual events and outcomes in work settings. Although progress has been made in this area for noncollege youth (e.g., Oakes 1985; Borman and Reisman 1986) to date only one known study has obtained employer information to supplement data from a national cohort (McPartland et al. 1986). That project linked survey data to information from current employers about a "sample job" similar to that held by the respondent in the National Longitudinal Survey-Class of 1972.

Clearly, there are important reasons for undertaking a complex project integrating of survey and case data. Jick (1984) claims that in spite of constraints such as time, triangulation "heightens qualitative methods to their deserved prominence and, at the same time, demonstrates that quantitative methods can and should be utilized in complementary fashion" (p. 371). However, the researcher must plan the research agenda carefully if the two distinctive types of data are to be integrated successfully. Sieber (1974) points out that the findings from one method can inform the investigative approach of another if proper specification of strategies is taken early in the development of
the study design. One strategy is to allow a field study to develop hypotheses. If this is preferred, then it must be undertaken prior to secondary data analysis. A second strategy is to determine the specific topics to be examined in a limited number of cases by first examining the findings of quantitative analysis in which the proper controls have been included. In the present research, the second strategy was used, although some feedback from the qualitative to the quantitative was allowed when interpreting the results.

Quantitative Approach

The quantitative data are from the High School and Beyond (HS&B) dataset, a longitudinal survey of about 29,000 high school students in the class of 1980 and another 29,000 in the class of 1982. This study uses data from the class of 1980 -- the "senior cohort" in over 1,000 schools in 1980. The HS&B contains the most extensive and up-to-date information available in a national sample about teachers, students, and the structures and processes of high schools. This dataset provides estimates for individual-level outcomes obtained from data for noncollege youth who were (1) high school seniors in 1980, and (2) employed at some time between graduation from high school and February 1986. Noncollege youth are defined as students who have not attended higher education institutions as of the survey date in 1986. This dataset also includes a special supplement to the HS&B that provides extensive information about teachers for a subsample of the HS&B schools.

Previous research results and preliminary findings from the present study using the HS&B data were used to (a) define the sample population
for the field studies, and (b) determine the school variables most likely to be associated with social capital resources. However, findings from the case studies were consulted prior to final specification of the quantitative model, so that the two strategies were actually used in complementary fashion.

Qualitative Approach

Case studies were also undertaken to supplement the HS&B data. Data were obtained from students, teachers and employers of high school business vocational programs. Students in business vocational programs were selected for the following reasons. First, vocational schools function as a "value community" in which consensus exists about the importance of acquiring specific training for employment. It was expected that any benefits students might derive from value communities could be observed within vocational schools, since it can be determined from case studies whether teachers and students agree on the norms, obligations and expectations for employment and support each other in maintaining them. Second, the quantitative analyses of economic advantages from several aspects of student-teacher relations and business vocational programs suggested that these forms of school background help women acquire both nontechnical and job-specific skills important in the workplace. Third, student-teacher relations can be studied in vocational schools net of student background, ability and prior socialization for work, in a way not possible in schools with heterogeneous student populations.

The goal of this aspect of the research was to determine how teacher-student relations within the context of school "value
communities" help students learn to cope with the formal organizational work structures. The observations for the field studies proceeded as follows. First, students and teachers were observed during regular classes. Second, students were selected randomly to participate in personal interviews. They were asked to identify and describe the nontechnical skills they would like an employer to know they possess, and the individual(s) and experiences that they believed helped them most to acquire these skills. Their teachers were queried about how each student had participated in school life, how prepared each was prepared to cope with the workplace, and the basis used to make these judgments. Statements from students and teachers were then compared with notes about each student's behaviors from school records. Third, each student was asked to describe a frustrating situation at work, exactly how she handled it, and how the employer responded to her actions. Fourth, a sample of employers connected with the school's business vocational program was asked to complete questionnaires about the nontechnical skills and behaviors they used in making hiring and promotion decisions.

The remainder of this chapter describes in greater detail the quantitative and qualitative methods used.

DATA AND SAMPLES: QUANTITATIVE ANALYSIS

Three types of data are incorporated in the quantitative analysis. They are (1) student data from the first four waves of the High School and Beyond (HS&B) dataset; (2) school data from the school questionnaire; and (3) data from a special supplemental teacher survey
of the HS&B. The HS&B contains basic measures of early work outcomes that are used in the present study, namely hourly wages, hours worked, time unemployed, and core economic sector. The HS&B also includes variables representing background and marital/family status, a broad range of variables associated with schooling and employment experiences, and complete occupational histories for the first six years after graduation. The variables from the school questionnaire include percentage of college-bound students, school rules, school size (enrollment), and adult interest in schooling. The supplemental survey adds information for a subsample of HS&B schools about the instructional strategies, duties and goals of teachers.

**High School and Beyond Dataset**

The High School and Beyond survey, sponsored by the National Center for Education Statistics (NCES), is a national longitudinal survey of high school students who were sophomores (N=30,303) and seniors (N=28,240) in 1980. The data were collected by the National Opinion Research Center (NORC).

The HS&B sample was drawn using a multistage, stratified and clustered design. The sampling units were schools that had independent enrollments. NORC used zip codes to match stratification variables to each school in the base-year sample.

From the original sample of 1,122 schools, 1,015 (79.9%) of the original sample and substitution schools defines the final realized sample (see Frankel et al., 1981 for estimates of sampling errors). Within each school in the final sample, 36 sophomores and 36 seniors were selected as student participants. No replacements were made for
schools in which there were less than 36 seniors, or for student refusals, or for students who were absent on the survey date in 1980. The completion rate of student participation is 84% (Frankel et al. 1981). Follow-ups of the same students occurred in 1982, 1984 and 1986, with telephone interviews undertaken as necessary. The follow-up questionnaires focused on employment experiences, postsecondary education, and early family life. Because the most problematic set of data was the distribution of grade spans (sophomore and senior cohorts) within the school, care was taken to ensure that the final grade spans were reliable. NORC created composite variables for gender and race.

Supplemental Survey Data

To study the effects of school characteristics not measured in the original 1980 HS&B survey, a consortium of research centers throughout the U.S. collaborated in the collection of supplemental data in 1984 from principals, teachers, vocational educators, guidance staff and community service leaders for a subsample of the HS&B schools. 9 10

The sample for the supplemental surveys was selected from the 975 HS&B schools (96%) still in existence during the fall and winter of 1982-83. No replacements were included for the six schools that closed between 1982-83 and data collection in 1984 (1.1%), nor for new schools created since the 1980 data collection (Jones, Knight and Ingels 1984). The supplementary sample provides data for a probability sample of 538 schools minus the six that had closed at the time of the survey (N=532).

The data for this supplemental sample was drawn from a random sample of up to 30 teachers selected to complete the teacher
questionnaire from among the eligible faculty in each selected school. A pretest was included to check response rates of schools, and telephone follow-ups were conducted where necessary. Questionnaires were received from 85.8% of the teachers. Thirty schools in the pilot study are not included in the dataset, however.

For each variable in the teacher file, a school level mean was calculated and a school score was assigned to each student respondent in the school. Calculation of the school mean for the 457 schools in the supplemental surveys subsample reduced the original sample of 28,240 senior students surveyed in 1980 to 19,531 seniors for whom supplemental data are available. From those participating in all four waves of data collection (N = 10,031), data are included only for students who did not obtain further education (N = 4004), and who reported wage and hour information (N = 3,839). Because supplemental data were available for about half of the schools, the final realized sample size for the research is 1,836. The data were adjusted for school and student selection into the HS&B and supplemental survey, using NORC guidelines. The weighted estimates allow generalizations to the U.S. noncollege student population defined by the study parameters.

All variables are operationalized consistently across the subsamples for the quantitative procedures. Operational definitions for each variable and the file of its origin are included in Table 3.1. Means and standard deviations for each variable in the analyses are presented in Table 3.2.
Table 3.1. Operational Definitions, Sources and Time of Data Collection for All Variables in Quantitative Analysis.

I. DEPENDENT VARIABLES:

A. Wages

Continuous variable for wages per hour for current or most recent job, 1986 (deflated to 1980 wages).

B. Early Employment Experiences

Continuous variable for total time in years on FIRST JOB after high school, 1982.
Continuous variable for average JOB HOURS worked/week on current/most recent job, 1984.
Dummy variable if current/most recent job in 1984 is in CORE INDUSTRY sector (industry codes 47-58, 119-259, 267, 347-387, 407-499).

II. INDEPENDENT VARIABLES:

A. Academic Emphasis

Percentage of '78-'79 Class attending regular COLLEGE, school file.
Importance of ABSOLUTE GRADING scale (4= extremely important), teacher file.
Percentage of class time devoted to INSTRUCTION or student skills practice (9 categories [0-31+%] recoded to the mean), teacher file.
Dummy variable if curricular program is ACADEMIC or BUSINESS VOCATIONAL (1=yes).
Dummy variable if participated in the CO-OP or work study programs (1=yes).
Number of T/I (trade and industry) vocational courses taken in high school.
Table 3.1, continued

B. Disciplinary Climate

Percentage of class time teachers spend on DISCIPLINE (9 categories [0-31+] recoded to mean), teacher file.
Index of whether school enforces RULES (dress code, no smoking, hall passes, closed lunches, students responsible for property damage), school file.
Index for presence of DISINTERESTED ADULTS (teachers lack motivation, teacher absenteeism a problem, parents not interested in school or in student), school file.

C. Student-Teacher Relations

Average hours per week teacher spends in ANCILLARY teaching activities (11 categories [0-21+ hours] recoded to mean), teacher file.
Average hours per week teacher spends in TEACHING activities (11 categories [0-21+ hours] recoded to mean), teacher file.
Index of teachers' goals in teaching is to develop SOCIAL SKILLS in students (8 categories [8= most important], teacher file.
Frequency of participation in student-directed small group and INDIVIDUAL LEARNING (4 categories [4= often]).

D. Student Involvement

Sum of number of school LEADER ROLES in school extracurricular activities.
Sum of number of ATHLETIC activities.
Average GRADES so far in high school (8 categories recoded to 4.0 grading scale).
Number of non-illness ABSENCES (7 categories [0-21+ days] recoded to the mean).
Hours worked on current/most recent HS JOB for pay (7 categories [0-35+ hours] recoded to the mean).
III. CONTROL VARIABLES:

A. Family Background and Personal Characteristics

PARENTS'/guardians' occupational status (17 categories recoded to 1970 Duncan SEI, mean of both parents/guardians).
Composite dummy variable for respondent's race is BLACK (1=yes).
Composite dummy variable for respondent's gender is FEMALE (1=yes).
Mean of verbal (vocabulary and reading) and math test scores, representing IQ (standardized to a mean of 50 and SD of 10).
OCCUPATIONAL ASPIRATION for age 30 (16 categories recoded to mean score for 1970 Duncan SEI ["not working" and "homemaker" coded missing]).
Dummy variable for MARRIED, 1984.

B. Community and School Characteristics

Four dummy variables for residence in NORTHEAST, MIDWEST, WEST or SOUTH (9 categories).
Three dummy variables for school in RURAL, URBAN or SUBURBAN location (9 categories).
Continuous variable for SCHOOL SIZE, logged (total high school membership).
Table 3.1, continued

C. Early Employment Experience Controls

Frequency on current/most recent job of TIME WITH THINGS (4 categories [4= a great deal], 1982.
Dummy variable for participated in OJT (on-the-job) TRAINING on current/most recent full time job, 1984.
Dummy variable for participated in FORMAL TRAINING during working hours on current/most recent full time job, 1984.
Dummy variable for participated in OFFSITE TRAINING (tuition reimbursement) on current/most recent full time job, 1984.

D. WORK EXPERIENCE:


E. Occupational status, 1984

DUNCAN SEI for prestige of current/most recent job (17 categories recoded to 1970 Duncan codes).

a Variables recoded so that a high score represents the maximum value.
b Source is student file unless noted otherwise.
Table 3.2  Observations, Means, and Standard Deviations for All Variables, By Status Group.

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<td>908</td>
<td>3.27</td>
<td>.92</td>
<td>427</td>
<td>2.97</td>
<td>.99</td>
<td>1409</td>
<td>3.16</td>
<td>.97</td>
</tr>
<tr>
<td>Job Time/Things</td>
<td>928</td>
<td>.59</td>
<td>.49</td>
<td>908</td>
<td>.50</td>
<td>.50</td>
<td>427</td>
<td>.27</td>
<td>.44</td>
<td>1409</td>
<td>.15</td>
<td>.36</td>
</tr>
<tr>
<td>Formal Training</td>
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<td>.29</td>
<td>.45</td>
<td>908</td>
<td>.19</td>
<td>.39</td>
<td>427</td>
<td>.27</td>
<td>.44</td>
<td>1409</td>
<td>.15</td>
<td>.36</td>
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<tr>
<td>Tuition-Reimbursed Training</td>
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<td></td>
<td></td>
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</table>
Table 3.2, continued

<table>
<thead>
<tr>
<th>Variable</th>
<th>Females</th>
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<th>Blacks</th>
<th>Whites</th>
</tr>
</thead>
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<tr>
<td></td>
<td>( N )</td>
<td>( \bar{x} )</td>
<td>( s )</td>
<td>( N )</td>
</tr>
<tr>
<td>Community Background</td>
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</tr>
<tr>
<td>Northeast</td>
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<td>.23</td>
<td>.39</td>
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<td>Midwest</td>
<td>928</td>
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<td>.42</td>
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<td>West</td>
<td>928</td>
<td>.20</td>
<td>.36</td>
<td>908</td>
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<tr>
<td>South</td>
<td>928</td>
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<td>.42</td>
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<tr>
<td>Rural</td>
<td>928</td>
<td>.23</td>
<td>.42</td>
<td>908</td>
</tr>
<tr>
<td>School Size (log)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Background and Personal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents' Occupation</td>
<td>928</td>
<td>40.54</td>
<td>12.40</td>
<td>908</td>
</tr>
<tr>
<td>Occup. Aspire</td>
<td>928</td>
<td>51.67</td>
<td>17.83</td>
<td>908</td>
</tr>
<tr>
<td>Sex</td>
<td>928</td>
<td>.09</td>
<td>.29</td>
<td>908</td>
</tr>
<tr>
<td>Black</td>
<td>928</td>
<td>.47</td>
<td>.50</td>
<td>908</td>
</tr>
<tr>
<td>Married</td>
<td>928</td>
<td>47.40</td>
<td>6.31</td>
<td>908</td>
</tr>
<tr>
<td>I.Q.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Experience</td>
<td>928</td>
<td>123.4</td>
<td>45.8</td>
<td>908</td>
</tr>
<tr>
<td>Duncan SEI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Missing Data

To minimize censoring bias due to omitted cases, respondents meeting other requirements but not in the labor force during one or more of the data collection periods were included in the study by using wage data for the most recent/current job held. For example, if the only job held was reported in 1982, estimates were obtained for that job. This permits a respondent to be retained in the study, for example, who was working in 1982 but not in 1984 and 1986, etc. (see Figure 3.1 below).

|------|------|------|------|------|------|------|

Figure 3.1. Possible work histories of HS&B respondents.

Missing data on independent variables assumed to be random were replaced with mean values for race and (Hispanic) ethnic status. No substitutions were specified by gender. Nor were means substituted for missing data from the supplemental survey variables because the pattern of missing data represents schools not selected. Neither were means substituted for missing values on a dependent variable. A dummy variable is included for missing data on parental occupation (models by race).

Mean substitution combined with an associated missing data dummy variable has desirable and less desirable effects (Cohen and Cohen
1983). The most desirable effect is that substitution of the means for missing data retains subjects who would be eliminated by listwise deletion and pairwise present methods, thereby capitalizing on a higher total N and reducing sampling variance. But mean substitution produces slightly biased estimates of regression coefficients; generally, effects are likely to be higher than actually reported. Although some bias is introduced by mean substitution, in models with many independent variables the bias probably is an acceptable tradeoff for the improved sampling stability. Kim and Curry (1977, p. 235) point out, however, that with a sample size of over 1,000, methods of handling missing data may not make very much difference.

Method of Analysis

It is important to recognize that environment and family background typically are highly correlated with work outcomes. Consequently, when school variables are added to an equation with these other variables, the school variables often lose statistical significance. The school characteristics of interest therefore must be exceptionally powerful and well measured to withstand such rigorous controls. It will be assumed that those which do contribute to the model are powerful measures, given the theoretical and measurement handicaps they face. At the same time, however, it should also be noted that the question of where to assign the overlap between environmental and school variables must be answered on theoretical as well as empirical grounds.

Preliminary analyses undertaken to identify the best fit of the data to the models were carried out as follows. First, a common model, described in figure 1.1, was specified that included dummy variables
for gender and race. Second, separate estimates were obtained for females, males, blacks and whites using the full complement of variables from the model of figure 1.1. After comparing all model estimates, a common model could not be identified. Therefore, it was decided to use separate models for females and males, blacks and whites. 11

Ordinary least-squares multiple regression was used to (a) estimate the contributions of school background variables to hourly wages of the current or most recent job, and (b) to account for measures of early employment experiences. Standardized estimates will be provided to assess the relative effects of each variable within a model. Unstandardized coefficients will be presented for comparisons across status groups.

Dependent Variables. During the first and second HS&B survey follow-ups, respondents were asked about their occupational histories for the first five jobs held during the two-year intervals between surveys. In 1986, information was requested for only four (rather than five) jobs. The question about wages asked, "What is your gross salary on this job or what was it at the time you left? " Respondents could blacken the appropriate circle indicating a dollar amount and then specify if this amount was paid hourly, weekly, bi-weekly, monthly, or yearly. All responses were deflated to 1980 hourly wages. 12

Four "mediating" variables are also treated as dependent variables in the test of indirect effects. Time in first job is measured by years in first job after high school. Hours worked on current or most recent job is measured in 1984. Unemployment is the number of months
from high school to February, 1984, that the respondent was unemployed but looking for work. Core sector employment is represented by a dichotomous variable if 1984 job is in industries that control market advantages. The classification of industries to core and non-core (periphery) sectors was derived from inspection of the results from a comparison among the three studies of sectoral classifications presented by Beck, Horan and Tolbert (1978, pp. 718-719). Jobs where at least two of the studies concurred were classified according to the industry of consensus. 13

Independent Variables. Two categories of independent variables were used to estimate wages. The first category includes variables representing the four dimensions of school background discussed in Chapter 2: academic emphasis, student-teacher relations, the disciplinary climate, and student involvement.

Academic emphasis is measured by a sequence of standard indicators including academic and business vocational tracks, trade/industry courses completed, class time on instruction, percentage of college-bound students, absolute grading, and participation in CO-OP/work study programs. 14 Student-teacher relations are represented by frequency of individualized learning activities, and four constructs derived from factor analyses, as described in the next section of this chapter. Measures of the disciplinary climate are percentage of class time controlling students and school rule enforcement. Student involvement is measured by participation in athletics, number of leadership roles in extracurricular school activities, days absent, and extent of part time employment.
The second category of independent variables describes characteristics not of direct interest in this study. Variables in this category include: geographic region and community location, family background, parental occupation, intellectual ability, marital status, status of first job (clerical), job complexity, whether respondent participated in three forms of employer-sponsored training, work experience, and occupational prestige (Stevens and Featherman 1981).

**Factor Analysis**

Principal components factor analyses, using oblique rotations, were specified for clusters of variables representing school background. The factors identify underlying constructs that might be represented in the data. All variables used in the factor procedures were measured on the same scale, and were reflected where necessary so that responses run in the same direction. Factor procedure results were computed using data from the total sample, so that each scale remains invariant among different subgroups.

The Kaiser criterion (eigenvalues greater than 1.0) was used to determine the number of factors to be extracted. A limited number of variables loaded on some factors of theoretical importance. Therefore, it was decided to retain variables with factor loadings of (± .30). The following factor constructs were identified.

**Student-Teacher Relations: Time with Students.** Teachers were asked to report the amount of time that they spend per week in 10 school-related activities. Two factors were expected: one that represents teaching time, and a second for non-teaching time with students. Table 3.3 shows the results from the factor analysis.
Table 3.3 Factor Pattern Matrix from Oblique Rotation of Measures for Teacher Time with Students.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly hours assigned to teach</td>
<td>-.12</td>
<td>.77</td>
</tr>
<tr>
<td>Weekly hours contacting employers/visiting worksites of students</td>
<td>.54</td>
<td>.22</td>
</tr>
<tr>
<td>Weekly hours conducting makeup work</td>
<td>.59</td>
<td>-.07</td>
</tr>
<tr>
<td>Weekly hours counseling students</td>
<td>.82</td>
<td>.04</td>
</tr>
<tr>
<td>Weekly hours coaching</td>
<td>-.04</td>
<td>.50</td>
</tr>
<tr>
<td>Weekly hours directing non-athletic extracurricular activities</td>
<td>.25</td>
<td>.61</td>
</tr>
<tr>
<td>Weekly hours tutoring</td>
<td>.71</td>
<td>.18</td>
</tr>
<tr>
<td>Weekly hours completing forms, paperwork</td>
<td>.66</td>
<td>-.22</td>
</tr>
<tr>
<td>Weekly hours monitoring (halls, study hall) lunchroom, detention</td>
<td>.02</td>
<td>-.45</td>
</tr>
<tr>
<td>Weekly hours preparing lessons, tests, grading papers</td>
<td>.01</td>
<td>-.22</td>
</tr>
<tr>
<td>Weekly hours reading subject matter</td>
<td>.59</td>
<td>-.21</td>
</tr>
</tbody>
</table>

Factor Correlations

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Factor 2</td>
<td>- .09</td>
<td>1.00</td>
</tr>
</tbody>
</table>

\(^a\) Measures are more fully described in Table 3.1.
The data suggest the expected two dimensions of teacher involvement with students. Variables loading on the first factor representing non-teaching or "ancillary duties" include time contacting employers of students, conducting makeup work, counseling, tutoring students, and also time spent on administrative duties and background reading. The second factor describes a more traditional form of professional duties. It includes time teaching, coaching athletics and supporting non-athletic extracurricular activities, and a negative coefficient for time spent in monitoring hallways and study halls. It represents "student contact time."

Cronbach's alpha for factor one is (.77). However, alpha is (.45) for factor two, which is a lower measure of reliability than would be preferred. The substantive concept of "contact time" is well-known in the educational literature, so the index is retained. The second factor is somewhat less likely to produce statistically significant results in correlational analysis because it is a less stable measure. Each index was created by computing an average of weekly hours on the items identified by the factor procedure. Both scales should show a positive relationship with wages, time on first and current jobs, and employment in a core sector job, but a negative association with time unemployed.

Student-Teacher Relations: Teachers' Goals. It was expected that teachers provide different socialization experiences according to their goals for teaching. Teachers were asked to rank eight outcomes of education according to their professional goals. Three types of goals
Table 3.4 Factor Pattern Matrix from Oblique Rotation of Measures Representing Teachers' Goals.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Important: teaching basic literacy skills (reading, writing, math, speaking)</td>
<td>-.55</td>
<td>-.29</td>
</tr>
<tr>
<td>Important: academic excellence/mastery</td>
<td>-.57</td>
<td>-.28</td>
</tr>
<tr>
<td>Important: developing citizenship (understanding institutions, public values)</td>
<td>.01</td>
<td>-.40</td>
</tr>
<tr>
<td>Important: specific occupational skills</td>
<td>-.16</td>
<td>.69</td>
</tr>
<tr>
<td>Important: teaching self-discipline and good work habits</td>
<td>-.09</td>
<td>-.35</td>
</tr>
<tr>
<td>Important: promoting personal growth (self-esteem, personal efficacy, self-knowledge)</td>
<td>.64</td>
<td>-.05</td>
</tr>
<tr>
<td>Important: human relations skills (cultural understanding, getting along with others)</td>
<td>.80</td>
<td>-.11</td>
</tr>
<tr>
<td>Important: moral/religious values</td>
<td>.10</td>
<td>.75</td>
</tr>
</tbody>
</table>

Factor Correlations

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

---

a The construct represented by factor 2 was not significant in preliminary analyses (see chapter 3).

b Measures are more fully described in Table 3.1.
were anticipated: academic, occupational/technical and nontechnical. The data were factor analyzed; the results are presented in table 3.4.

Two factors emerged. For the first factor, personal growth and human relations skills have positive values, but basic skills (reading, math) and academic excellence display negative coefficients. The construct suggests teachers goals are to teach "social skills". The alpha coefficient is (.56), which is not as high as would be desired but seems acceptable for the present purpose. An index was created that provide an average rank score for the goals loading on these factor. The goal of social skills development will be positively associated with wages and all employment experiences except unemployment, where it will demonstrate a negative relationship.

The second factor suggests educational goals of teachers based on a pragmatic, moralistic approach: developing specific occupational skills, reinforcing moral/religious values but de-emphasizing citizenship. The constructed index failed to reach statistical significance in preliminary models and was not included in analyses.

**Student Involvement: Extracurricular Activities.** Using factor analysis procedures on data from males and females in the 1970 Explorations in Equality of Opportunity study, Hanks and Eckland (1976) identified two dimensions of extracurricular activities. They were interpreted as representing athletics and "social" activities (e.g., music, art, student council). In preliminary results, three factors were found, but the third was composed of two variables that together were uninterpretable. Therefore, the factor procedure was constrained
Table 3.5 Factor Pattern Matrix from Oblique Rotation of Types of Extracurricular Activities of Students.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varsity Athletics</td>
<td>-.11</td>
<td>.82</td>
</tr>
<tr>
<td>Other Athletics</td>
<td>-.04</td>
<td>.83</td>
</tr>
<tr>
<td>Pepclub</td>
<td>.54</td>
<td>-.01</td>
</tr>
<tr>
<td>Band</td>
<td>.35</td>
<td>.05</td>
</tr>
<tr>
<td>Chorus</td>
<td>.61</td>
<td>-.03</td>
</tr>
<tr>
<td>Debate</td>
<td>.61</td>
<td>.00</td>
</tr>
<tr>
<td>Subject Matter Clubs</td>
<td>.51</td>
<td>.15</td>
</tr>
<tr>
<td>Vocational Clubs</td>
<td>.33</td>
<td>-.06</td>
</tr>
<tr>
<td>Hobby Clubs</td>
<td>.18</td>
<td>.29</td>
</tr>
<tr>
<td>School Newspaper</td>
<td>.35</td>
<td>.27</td>
</tr>
<tr>
<td>Honors Associations</td>
<td>.56</td>
<td>-.02</td>
</tr>
<tr>
<td>Student Council/Government</td>
<td>.38</td>
<td>.23</td>
</tr>
</tbody>
</table>

Factor Correlations

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Factor 2</td>
<td>.12</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*a Activities are more fully described in Table 3.1.
to find two constructs. The results are presented in Table 3.5.

The first factor includes nine measures of student involvement, all in non-athletic activities. The second factor represents "athletics." The alpha coefficient for factor 1 is (.53), and for factor 2 it is (.45). The indices were created by (a) constructing dummy variables (participated/not) for each item/activity, and (b) computing a mean score of the items for each index. Participation in either form of school activity should be positively associated with work outcomes.

**Disciplinary Climate and Disinterested Adults.** The administrator respondent to the school questionnaire was asked whether or not the school had problems with student discipline and adult morale or motivation. Data representing thirteen school problems were factor analyzed. The results are presented in Table 3.6.

Two factors were identified by the factor procedure. The first factor suggests school conflict or disorganization. One might expect that a disregard of school norms is more likely to produce students who disregard norms at work. The second factor is interpreted as representing a lack of adult support. Teacher absenteeism is high, teachers lack motivation, parents are not interested in students or the school. However, only the second factor, "disinterested adults," attained statistical significance in preliminary analysis and is included in further analysis. The reliability of this factor is (.75). A high level of adult disinterest will be negatively associated with all variables except unemployment.
Table 3.6 Factor Pattern Matrix from Oblique Rotation of Measures of School Problems.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher absenteeism</td>
<td>.08</td>
<td>.58</td>
</tr>
<tr>
<td>Teachers lack motivation</td>
<td>-.10</td>
<td>.64</td>
</tr>
<tr>
<td>Parents uninterested in students</td>
<td>-.06</td>
<td>.84</td>
</tr>
<tr>
<td>Parents uninterested in school</td>
<td>.04</td>
<td>.79</td>
</tr>
<tr>
<td>Student absenteeism</td>
<td>.47</td>
<td>.28</td>
</tr>
<tr>
<td>Students skip classes</td>
<td>.57</td>
<td>.19</td>
</tr>
<tr>
<td>Verbal abuse of teachers</td>
<td>.54</td>
<td>.28</td>
</tr>
<tr>
<td>Student-teacher conflicts</td>
<td>.53</td>
<td>.19</td>
</tr>
<tr>
<td>Robbery</td>
<td>.81</td>
<td>-.21</td>
</tr>
<tr>
<td>Vandalism</td>
<td>.75</td>
<td>-.14</td>
</tr>
<tr>
<td>Alcohol/drugs</td>
<td>.58</td>
<td>-.05</td>
</tr>
<tr>
<td>Rape</td>
<td>.17</td>
<td>.02</td>
</tr>
<tr>
<td>Weapons</td>
<td>.53</td>
<td>.13</td>
</tr>
</tbody>
</table>

Factor Correlations

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Factor 2</td>
<td>.42</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*a The construct represented by factor 1 was not significant in preliminary analyses (see chapter 3).

*b Measures are more fully described in Table 3.1.
Limitations of Estimates

The estimates of this study are subject to the following limitations. First, all data from seniors were obtained by self-report. Self-reporting errors can occur when respondents misinterpret the question, or cannot recall specific information. Self-reporting errors are likely to be higher for school curriculum and for wages. To help to correct for a few outlier scores on wages, a wage cap of $15 was imposed; the cap excluded slightly less than 4% of the sample.

Second, nonresponse errors are troublesome when students who take part in the base year or early follow-ups are not available for later follow-ups. It is possible that students who did not do well after high school were disproportionately excluded from this study, as well as students who moved frequently or for various reasons cannot be traced. However, several strategies were taken by NORC to minimize nonresponse bias, including individual follow-ups and subsampling for the follow up data collections.

Third, specification error produces biased estimates when variables are omitted that affect the dependent variables and are correlated with independent variables. The omitted variables problem will be addressed by giving careful attention to specification of the theoretical model.

Collinearity

Including independent variables that are highly related to each other produces estimates that are less stable and can reduce their significance in the model. Two approaches were used to determine the
presence of high levels of collinearity. First, zero-order correlation coefficients among independent variables were inspected. Second, forward stepwise models were estimated to check for increases in levels of standard errors as each variable was added to the model. No high levels of collinearity were found.

DATA AND SAMPLES: FIELD STUDIES

High school students can obtain job-specific training either at their home (comprehensive) school, or at a full time vocational or area vocational school. An analysis of the reasons that students attend one kind of school versus another is beyond the scope of this paper. However, the educational stratification literature suggests that social class, gender and race play key roles in determining both the curriculum taken and the type of school attended (e.g., see the extensive review of research on stratification in secondary schools by Gamoran and Berends, 1987). In brief, vocational education traditionally has attracted students of lower social classes, and/or those who plan to obtain a full time job immediately after high school.

The HS&B database provides information about only those vocational programs that are incorporated within an independent high school. No information is available in the HS&B about vocational schools that serve "feeder" schools within a district or county. Yet, such nonindependent schools must be particularly successful in developing an image of preparing youth for employment, because they are in competition with their feeder schools for students (and per-capita education dollars). It is reasonable to expect that such schools offer
more personal support and are particularly sensitive in providing socialization about the normative structures of work and how to cope with workplace uncertainty. Thus, it is possible that measures of social capital resources are somewhat underestimated in the results obtained from the analyses of data from HS&B students.

For these reasons, three area vocational schools were studied in greater detail. This case analysis offers the opportunity to focus on a select group of students with relatively homogeneous family and school backgrounds who are exposed to a program dedicated to helping them obtain work.

Vocational Schools: Sample and Data

The three area vocational schools are located in three of seventeen metropolitan statistical areas (MSAs) in Ohio. Each is a full time, nonindependent school receiving students from between six and eleven feeder high schools. Limited resources precluded adding schools other than those in Ohio. An advantage of confining the research to programs in one state is that it eliminates variations in levels of state support for vocational education. Ohio can be classified as a "middle class state," with a large share of economically well-off farmers and moderately well-off factory workers (Hodgkinson 1987).

Advantages of Case Studies. The major goal of this portion of the research is to explore more fully the association between student-teacher relations and their social capital resources and the development of nontechnical skills for work.

Vocational schools are argued to be value communities that help
Youths acquire nontechnical skills important for success on the job. The advantage of conducting the case studies in vocational schools is that, of the four components of school background discussed earlier, teacher-student interactions are most likely to be the major source of influence on students' levels of success at work. This is because students choose to attend the vocational school, so it is easier to maintain formal and informal norms about absence, working and following school rules. Also, the only extracurricular activity at most schools is the vocational club for program service areas (e.g., business and office). Thus, confounding influences are minimized across schools that might be due to variations in dimensions of academic emphasis, disciplinary climate and student involvement.

The field studies were confined to one vocational program area -- business and office education. Empirical studies consistently link business vocational programs to higher wages for women in the early career. It is not clear, however, whether the wage advantage is due to a concentrated program of study, to the relationships between teachers and students, to the relatively stable demand for office workers, or to some combination of these. Also, nearly all schools offer several types of business programs, such as secretarial, accounting and general clerical services. Thus, the findings offer the potential for theoretical and practical considerations.

Procedures. A letter of introduction was sent to each vocational school director or school principal in January, 1988, explaining the objectives of the study and the rationale for selecting that school as a possible field site. The letter stated that the director would
receive a telephone call to answer questions about the study, and to obtain permission to make a brief visit to the school. The purposes given for the visits were (1) to establish credibility of the study with the director and supervisor of the business and office occupations programs; and (2) to gain general information about each school and its program.

No major problems were encountered in enlisting cooperation. Two of the three schools expressed immediate interest, and a third was willing to participate if the study did not require a great deal of involvement by the program supervisor. In each school, the final decision to participate was made by the supervisor during the initial visit. Depending on the curriculum at each school, three or four year-long courses in the business program were selected for study. Each school offered courses in secretarial (executive or legal/medical) and accounting skills. Two sites also offered a general clerical services course, and two had a cooperative education program (CO-OP). The supervisor was asked during the initial visit to provide a list of the names of all seniors in the selected courses.

Using the class rosters provided by the supervisor, five students had been selected at random from each business program for interviews prior to the start of the study. When teachers and students understood this, they seemed more at ease. Most interviews lasted approximately 50 minutes; a few continued well over an hour. Up to six interviews were completed each day. Six of the initially selected 27 students chose not to participate in the study (usually the reason was "not interested"). Others previously selected were substituted, although
time permitted completion of only three of these interviews. Each supervisor stated that there were no major differences in average academic or technical abilities of students who declined compared to others in that program. 18

A week was spent at each school. The first two days were devoted to observing classrooms. That time was used to become familiar with the school routine, students and staff became accustomed to my presence, and students had time to return parental consent forms for the personal interviews. To ensure high levels of student participation, the general details and goals of the study were explained to teach teacher on the first day.

Each school provided a list of the program's employers in each business course studied. In the school without a CO-OP program, teachers of the three courses studied submitted lists of advanced and/or early placement employers for that program. The three schools provided contact names, and addresses of nearly one hundred employers.

**Employers: Sample and Data**

Due to resource constraints, the final sample of employers for the mail survey was limited to half of those nominated (N = 51). The following strategies were used to define the sample. First, all employers were included for the sample students who were employed in the industries with only a few firms, namely retail trade and business services. Remaining employers were selected approximately equally from the industries of banking and insurance, manufacturing, and professional services (primarily health, education and law). Between six and twelve firms represented each of the five industries. The
discussion by Sheatsley (1983) on questionnaire construction and item development guided the preparation of the Employer Questionnaire. A copy is included in the Appendix. 19

The Total Design Method (TDM) advocated by Dillman (1983) was employed in designing the questionnaire and establishing mailing procedures. Briefly, TDM provides specific, detailed steps about mail surveys and their timing based on empirically verified results. For example, Dillman discusses exactly how to develop the questionnaire and cover letter, what types of follow-ups work best and when to send them, and how to encourage responses. Using his method, response rates from a national mailing usually exceed 60%, and may be as high as 80% or 90%. His steps were carefully followed, resulting in a response rate of 73% after the third mailing. 20 21
CHAPTER IV
CONTRIBUTIONS OF SCHOOL BACKGROUND TO WAGES AND EARLY EMPLOYMENT EXPERIENCES

REVIEW OF HYPOTHESES

The rationale for the present study is as follows. Schools not only help students acquire cognitive and occupational skills, but also nontechnical social and organizational skills. However, the contributions of school experiences to the development of the non-technical skills useful in work settings are usually overlooked in favor of the more readily measurable achievement and technical expertise. Yet, case studies of the workplace reveal that workers do rely on nontechnical skills to cope with managerial directives and organizational rules. Without the proper socialization from schools, young workers have to rely on random, unplanned events on the job, such as working for a boss (or with a co-worker) who conveys the necessary information about how to cope with work problems. The goal is to determine in what ways the school as an agent of socialization influences early employment outcomes.

Chapter 2 presents a model of socialization that is based on the concept that social capital relations are resources accruing to individuals, bestowed upon them by virtue of their membership in organizations. School social capital includes support from teachers, other staff and the community of adults associated with the school. It is especially important for students from broken homes and
disadvantaged backgrounds, whose family social support (family social capital) is limited or nonexistent.

Based on the theoretical model, four sets of hypotheses are specified. This chapter presents the findings from tests of these hypotheses. The findings rely on data from a nationally representative sample of high school students who have not attended college six years after high school.

The first set of hypotheses is that formal institutions such as high schools directly influence the wages of noncollege youth in the early career, and that these influences are independent of family background and personal characteristics. For this hypothesis, four dimensions of school background important in past research in the fields of sociology and education have been identified as potential predictors of student outcomes. The four dimensions are: (1) the academic emphasis of the school; (2) student-teacher relations, especially those which offer social support to students; (3) the school disciplinary climate, and (4) student involvement in school life. The school experiences likely to be important in developing nontechnical work skills are those that encourage self-awareness and self-reliance, offer access to information and expertise; foster self-direction while promoting cooperation in working with others; and provide social stability and cohesion.

To test this hypothesis -- that schools directly influence the wages of young workers -- regression coefficients will be computed using ordinary least squares. Also, zero-order correlations will be inspected between characteristics of school background, students' early
work experiences and wages.

The second and third sets of hypotheses are based on the argument that schools indirectly affect current wages through early employment experiences. The basic idea is that when schools make investments in students, they will have other advantages such as less unemployment and longer work hours. If so (controlling for work experience, family background and ability), school background measures representing support for students should be positively related to work experiences. Important early work experiences in this study include (a) time spent on the first job after high school, (b) time unemployed, (c) hours worked in current/most recent job and (d) industrial sector of current job. To test the indirect effects argument calls for two strategies: (1) computation of the direct effects of employment experiences on wages, and (2) calculation of indirect effects of school background on wages.

One of the research questions of the present study is whether some of the economic disadvantages of minorities can be overcome by school socialization. Particular interest is paid to how schools socialize women and blacks for the work settings and jobs they are likely to enter after graduation. Therefore, the fourth set of hypotheses is that the contributions of schools to the outcomes of wages and work experiences are invariant for different social groups. This hypothesis tests the fundamental principles underlying the research on "school social capital" (Coleman and Hoffer 1987; Coleman 1988) and "the contributions of schools to the learning of norms" by Dreeben (1968) for different status groups. Thus, under the proper controls,
disadvantaged students should perform as well on the job as other students if they have acquired the nontechnical skills provided by social capital relations in school.

The sample that will be used to test the four sets of hypotheses is comprised of respondents of the High School and Beyond (HS&B) survey who (a) were seniors in 1980 who had not obtained additional education in college or vocational-technical school as of February, 1986; and (b) had held at least one job between 1980 and 1986 for which wages were reported. The realized sample size is 1,836 noncollege respondents. The data are adjusted for school selection into the HS&B and supplemental teacher samples, and for student selection and non-response using NORC guidelines. Thus, the findings can be generalized to the population of noncollege students in the U.S. as defined by the study parameters.

RESULTS

A common model applicable to gender and race groups could not be identified in preliminary analysis (see footnote 11). Therefore, the discussion in this chapter proceeds in the following order. The first section reviews the correlation patterns first for females and males, and then for blacks and whites. The second section presents the regression results from tests of the direct effects hypothesis for the two gender and race groups. The third section is a discussion of regression results of tests for the indirect effects hypothesis for the two genders and races. The last section summarizes and discusses the findings pertinent the model of figure 1.1.
Gender Differences

Table 4.1 presents the zero-order correlations between school background variables, early employment experiences and wages. The correlations in the top triangle are for females; those in the bottom triangle are for males. The results to be discussed include only statistically significant coefficients ($r > 0.06 @ p < 0.05$).

First consider the relationships between the school variables and wages for females. Higher wages in dollars per hour are positively and significantly associated with (a) enrollment in a business vocational education program ($r = 0.15$), (b) time teachers spend in "ancillary" activities (e.g., tutoring, contacting employers, conducting makeup-work sessions; $r = -0.14$), and (c) attending schools where important goals are to develop social skills (promote self-awareness and human relations skills; $r = 0.11$). Involvement by teachers in the more formal pedagogical "contact" activities is associated with a wage disadvantage ($r = -.12$). There are also noteworthy relationships between wages and (a) frequency of individualized instruction ($r = 0.10$), and (b) days absent when not ill ($r = -.11$).

For males, higher wages are negatively related to (a) percent of class time teachers spend on instruction ($r = -.07$), (b) teacher time in ancillary activities with students ($r = -.09$), and (c) time spent in controlling classroom behavior ($r = -.07$). As past research has suggested, wages are positively and significantly associated with grades ($r = 0.10$). Being married is economically advantageous ($r = 0.16$).
Table 4.1 Zero-Order Correlation Coefficients for Measures of School Background, Early Employment Experiences and Wages: Females and Males.

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### Males

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**NOTE:**
- x1 = Wages, x2 = '84 Hours, x3 = Core Sector, x4 = Unemployed, x5 = Bus Vocational Program, x6 = Trade/Industry Courses, x7 = Percent Time on Instruction, x8 = Ancillary Activities, x9 = Contact Activities, x10 = Individual Learning, x11 = Social Skills, x12 = Percent Time on Discipline, x13 = School Rules, x14 = Athletics, x15 = Leadership, x16 = Absence, x17 = Work Experience, x18 = Grades.
but being black is not \((r = -.09)\).

The correlations between school background and wages for females and males suggest the following patterns. First, there is a relationship between wages for women and having teachers spend more time in personal types of activities with them. Similarly, if women skip school less and are preparing for a business or office job in a vocational education program, their chances of higher wages might be increased. The program measure probably represents a combination of technical (clerical) and nontechnical skills, however, rather than being a pure indicator of nontechnical skills. For males, the pattern of correlations suggests that of all school background variables, grades might be of greatest importance for higher wages; other associations are either negative or minimal.

It is interesting that women whose relationships with teachers suggest an emphasis on social skills and personal development are likely to report higher wages. The pattern is not present for males. Consistent with the findings of Kanter (1977), the relationship here suggests that labor force socialization for women is related to what happens in school: there are processes linking the preparation of women for jobs and work settings where they will be expected to employ personal and social relations skills and the likelihood of being employed in them.

Race Differences

Table 4.2 presents the zero-order correlations for blacks and whites between school background variables and wages \((r > .12\) for
Table 4.2 Zero-Order Correlation Coefficients for Measures of School Background, Early Employment Experiences and Wages: Blacks and Whites.

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NOTE: x1 = Wages, x2 = '84 Hours, x3 = Core Sector, x4 = Unemployed, x5 = Bus Vocational Program, x6 = Number of Trade/Industry Courses, x7 = CO-OP Program, x8 = X '78-'79 in College, x9 = Time in First Job, x10 = Absolute Grading, x11 = % Class time on Discipline, x12 = Athletics, x13 = Leadership, x14 = Hours on HS Job, x15 = Work Experience.
blacks and $r > .06$ for whites at $p < .05$).

First consider the relationships between school variables and wages for blacks (top triangle of table 4.2). Wages are positively related to enrollment in the business vocational program ($r = .15$), and to participation in a cooperative education (CO-OP) or work-study program ($r = .30$). Yet, attending schools where teachers use absolute grading standards (i.e., do not grade based on effort or achievement relative to others) is associated with lower wages ($r = -.13$).

For whites (bottom triangle of table 4.2), the more courses in trade/industry they take, the higher their wages. Another significant finding is that working more hours while in high school is linked to higher wages.

The pattern of correlations between school background and wages for blacks and whites suggests that blacks more than whites might benefit economically from practical work experiences supported by the formal curriculum of school, rather than by the curriculum alone.

**Direct Effects Models**

**Gender Differences**

This section presents the results of tests for the direct effects hypothesis. Regression results are reported for six hundred eighty-four females and six hundred fifty-three males from regressing wages on the four dimensions of school background. Results by race are based on two hundred forty-nine black and nine hundred eighty-one white respondents of the HS&B. Hourly wages are deflated to 1980 dollars.
Four equations are estimated for each of the two genders. The results are presented in Tables 4.3 (females) and 4.4 (males). Equation 1 in each table represents the total effects on wages of residence, family and personal characteristics of students. Equation 2 shows the net effects of the four measures of school background. Equation 3 adds the net influence of early labor market experiences on wages while Equation 4 shows the contribution from time in labor force.

Tables 4.3 shows that the model explains 20% of the total variance in wages for females. Table 4.4 indicates that this model explains only 10% of the variance in wages for males. The following discussion addresses the contribution from each variable by gender.

Residence and Family/Personal Background. Six measures of residence and family/personal characteristics were identified in preliminary analysis (see footnote 11). The tables show that these characteristics make distinctly different contributions to the wages of females and males.

Equation 1 in table 4.3 shows that for women (a) living in a rural area leads to lower wages, but that (b) having parents with higher status contributes to a wage advantage. Compared to women who live in the South, those from the Northeast and Midwest regions in the U.S. report higher wages (see table footnote).

In Table 4.4, Equation 1 reveals that for males, higher wages go not only to those who have higher status parents but also to males who are white and are married. (No region effects were observed in preliminary analysis for males.) The direction of effects of residence is similar to that for females, although the coefficient is not
Table 4.3 Regressions for Females of Wages on Family, School and Early Employment Experience Variables.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>B</td>
<td>b</td>
<td>B</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.3</td>
<td>-9.6</td>
<td>-10.0</td>
<td>-10.5</td>
</tr>
<tr>
<td>Rural Residence</td>
<td>-1.1</td>
<td>-.20***</td>
<td>-1.0</td>
<td>-.19***</td>
</tr>
<tr>
<td><strong>Family/Personal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents Occup.</td>
<td>.02</td>
<td>.09**</td>
<td>.02</td>
<td>.10**</td>
</tr>
<tr>
<td>Black</td>
<td>-.17</td>
<td>-.02</td>
<td>-.39</td>
<td>-.05</td>
</tr>
<tr>
<td>Occup. Aspire</td>
<td>.00</td>
<td>.03</td>
<td>.00</td>
<td>.01</td>
</tr>
<tr>
<td>Married, '84</td>
<td>-.27</td>
<td>-.06</td>
<td>-.32</td>
<td>-.07</td>
</tr>
<tr>
<td>IQ</td>
<td>.00</td>
<td>.02</td>
<td>.01</td>
<td>.03</td>
</tr>
<tr>
<td><strong>Academic Emphasis</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BusVoc Track</td>
<td>.76</td>
<td>.12***</td>
<td>.71</td>
<td>.11***</td>
</tr>
<tr>
<td># Trade/Ind. Courses</td>
<td>-.00</td>
<td>-.01</td>
<td>.02</td>
<td>.00</td>
</tr>
<tr>
<td>% Class Time in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction</td>
<td>.73</td>
<td>.10**</td>
<td>.68</td>
<td>.09**</td>
</tr>
</tbody>
</table>
Table 4.3, continued

**Student-Teacher Relations**

<table>
<thead>
<tr>
<th>Teacher Time, Ancillary</th>
<th>Ancillary</th>
<th>Teaching</th>
<th>Teaching</th>
<th>Individual Learning</th>
<th>Social Skills</th>
<th>Disinterested Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.2</td>
<td>.16***</td>
<td>1.4</td>
<td>.18***</td>
<td>1.3</td>
<td>.17***</td>
</tr>
<tr>
<td>Teacher Time, Teaching</td>
<td>-.36</td>
<td>-.08*</td>
<td>-.37</td>
<td>-.09*</td>
<td>-.34</td>
<td>-.08*</td>
</tr>
<tr>
<td>Individual Learning</td>
<td>.38</td>
<td>.10**</td>
<td>.37</td>
<td>.10**</td>
<td>.38</td>
<td>.10**</td>
</tr>
<tr>
<td>Social Skills</td>
<td>.69</td>
<td>.10**</td>
<td>.67</td>
<td>.10**</td>
<td>.63</td>
<td>.09**</td>
</tr>
<tr>
<td>Disinterested Adults</td>
<td>.35</td>
<td>.08*</td>
<td>.39</td>
<td>.09*</td>
<td>.36</td>
<td>.08**</td>
</tr>
</tbody>
</table>

**Disciplinary Climate**

| % Class Time on Discipline | -.02 | -.01 | -.02 | -.01 | -.03 | -.01 |
| School Rules              | .65  | .05  | .62  | .05  | .53  | .04  |

**Student Involvement**

| Athletics | .28  | .03  | .14  | .02  | .16  | .02  |
| Grades    | .04  | .01  | -.06 | -.01 | -.09 | -.02 |
| No. Leader Roles | .08  | .03  | .15  | .06  | .13  | .05  |
| Absent, not Ill | -.04 | -.07*| -.03 | -.06 | -.03 | -.05 |
| Hours HS Job | .01  | .06  | .02  | .08**| .02  | .08**|
Table 4.3, continued

**Employment Experiences**

<table>
<thead>
<tr>
<th>Time w/Things</th>
<th>-.01</th>
<th>-.00</th>
<th>-.01</th>
<th>-.02</th>
</tr>
</thead>
<tbody>
<tr>
<td>OJ Training</td>
<td>.37</td>
<td>.08*</td>
<td>.39</td>
<td>.08**</td>
</tr>
<tr>
<td>Formal Training</td>
<td>.50</td>
<td>.09**</td>
<td>.46</td>
<td>.09**</td>
</tr>
<tr>
<td>Hours '84 Job</td>
<td>.01</td>
<td>.03</td>
<td>.00</td>
<td>.01</td>
</tr>
<tr>
<td>Months Unemployed</td>
<td>-.05</td>
<td>-.12***</td>
<td>-.05</td>
<td>-.14***</td>
</tr>
<tr>
<td>Core Industry, '84</td>
<td>2.0</td>
<td>.15***</td>
<td>1.8</td>
<td>.14***</td>
</tr>
</tbody>
</table>

**Work Experience**

| Unadjusted $R^2$ | .08  | .17  | .23  | .24  |
| Adjusted $R^2$   | .07  | .14  | .19  | .20  |

**Standard Deviation Wages**

| 2.32 |

---

* p < .05
** p < .01
*** p < .001

Note: Two of the three region dummies (South omitted) were statistically significant: Northeast and Midwest for model (1), and Midwest and West for models (2), (3) and (4) (p. < .05, two-tailed test).
Table 4.4 Regressions for Males of Wages on Family, School and Early Employment Experience Variables.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>(1)</th>
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<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>6.6</td>
<td>12.7</td>
<td>14.0</td>
<td>11.5</td>
</tr>
<tr>
<td>Rural Residence</td>
<td>-.47</td>
<td>-.07</td>
<td>-.69</td>
<td>-.10**</td>
</tr>
<tr>
<td><strong>Family/Personal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents Occup.</td>
<td>.02</td>
<td>.08*</td>
<td>.02</td>
<td>.09**</td>
</tr>
<tr>
<td>Black</td>
<td>-.93</td>
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<td>-.07</td>
</tr>
<tr>
<td>Occup. Aspire</td>
<td>.01</td>
<td>.07</td>
<td>.02</td>
<td>.10**</td>
</tr>
<tr>
<td>Married, '84</td>
<td>.94</td>
<td>.15***</td>
<td>.88</td>
<td>.14***</td>
</tr>
<tr>
<td>IQ</td>
<td>-.03</td>
<td>-.07</td>
<td>-.04</td>
<td>-.09**</td>
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<tr>
<td><strong>Academic Emphasis</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BusVoc Track</td>
<td>.10</td>
<td>.01</td>
<td>.27</td>
<td>.01</td>
</tr>
<tr>
<td># Trade/Ind. Courses</td>
<td>.24</td>
<td>.09**</td>
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<td>.10**</td>
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<tr>
<td>% Class Time in Instruction</td>
<td>-.87</td>
<td>-.10**</td>
<td>-.92</td>
<td>-.11**</td>
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### Table 4.4, continued

#### Student-Teacher Relations

<table>
<thead>
<tr>
<th>Teacher Time,</th>
<th>Ancillary</th>
<th>Teacher Time,</th>
<th>Teaching</th>
<th>Individual Learning</th>
<th>Social Skills</th>
<th>Disinterested Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- .65</td>
<td>- .08*</td>
<td>- .62</td>
<td>- .08*</td>
<td>- .57</td>
<td>- .07*</td>
<td></td>
</tr>
<tr>
<td>.46</td>
<td>.08*</td>
<td>.39</td>
<td>.07</td>
<td>.47</td>
<td>.08*</td>
<td></td>
</tr>
<tr>
<td>.07</td>
<td>.02</td>
<td>.05</td>
<td>.01</td>
<td>.03</td>
<td>.01</td>
<td></td>
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<tr>
<td>.06</td>
<td>.01</td>
<td>.05</td>
<td>.01</td>
<td>.10</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>.21</td>
<td>.04</td>
<td>.29</td>
<td>.05</td>
<td>.31</td>
<td>.06</td>
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</tbody>
</table>

#### Disciplinary Climate

<table>
<thead>
<tr>
<th>% Class Time on</th>
<th>Discipline</th>
<th>School Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>- .19</td>
<td>- .05</td>
<td>- .25</td>
</tr>
<tr>
<td>-.45</td>
<td>- .03</td>
<td>- .29</td>
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</table>

#### Student Involvement

<table>
<thead>
<tr>
<th>Athletics</th>
<th>Gr.eades</th>
<th>No. Leader Roles</th>
<th>Absent, not Ill</th>
<th>Hours HS Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>.35</td>
<td>.04</td>
<td>.24</td>
<td>.03</td>
<td>.35</td>
</tr>
<tr>
<td>.46</td>
<td>.09**</td>
<td>.49</td>
<td>.10**</td>
<td>.43</td>
</tr>
<tr>
<td>-.23</td>
<td>-.06</td>
<td>-.27</td>
<td>-.07*</td>
<td>-.24</td>
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<td>-.01</td>
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<td>.01</td>
<td>.02</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
</tbody>
</table>
Table 4.4, continued

**Employment Experiences**

<table>
<thead>
<tr>
<th></th>
<th>Hours '84 Job</th>
<th>Months Unemployed</th>
<th>Core Industry, '84</th>
<th>Work Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time w/Things</td>
<td>-.07</td>
<td>-.02</td>
<td>-.01</td>
<td>-.02</td>
</tr>
<tr>
<td>OJ Training</td>
<td>-.46</td>
<td>-.08*</td>
<td>-.50</td>
<td>-.09**</td>
</tr>
<tr>
<td>Formal Training</td>
<td>.25</td>
<td>.03</td>
<td>.35</td>
<td>.05</td>
</tr>
<tr>
<td>Hours '84 Job</td>
<td>-.01</td>
<td>-.04</td>
<td>-.01</td>
<td>-.04</td>
</tr>
<tr>
<td>Months Unemployed</td>
<td>.03</td>
<td>.05</td>
<td>.07</td>
<td>.12**</td>
</tr>
<tr>
<td>Core Industry, '84</td>
<td>2.3</td>
<td>.16***</td>
<td>2.2</td>
<td>.16***</td>
</tr>
<tr>
<td>Work Experience</td>
<td></td>
<td></td>
<td></td>
<td>.01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Unadjusted $R^2$</th>
<th>Adjusted $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.05</td>
<td>.09</td>
</tr>
<tr>
<td></td>
<td>.04</td>
<td>.06</td>
</tr>
</tbody>
</table>

Standard Deviation Wages 2.88

* p < .05
** p < .01
*** p < .001
statistically significant.

**School Background.** The tables show that school variables contribute almost twice as much to the explained variance in wages for women as for men (net of family background). Moreover, as discussed below, schooling plays a different role between the genders.

**Academic Emphasis.** Equation 2 of table 4.3 shows that the expected curriculum effects discussed in Chapter 2 are evident. Women completing a business vocational program report higher wages ($0.12 per hour). In addition, women from schools where teachers spend a higher percentage of class time on instruction have a higher hourly wage. Of course, it is possible that the effect of instructional time is in part due to ability, coursework or curriculum track. However, since these measures are not statistically significant predictors in preliminary models, the weight of the evidence suggests that ability does not play a key role in the wages of noncollege women. This interpretation is considered further in this and the following chapter.

In contrast, equation 2 in Table 4.4 shows that males benefit economically from taking more courses in trade/industry ($B = .09). But, it is surprising to find that the time teachers spend on classroom instruction depresses the wages of men when the same variable predicts higher wages for women. Some clarification of this difference requires comparative information about the nature of instruction afforded to the genders.

**Student-Teacher Relations.** Relationships between teachers and students have been described in case studies (e.g., Rutter et
al. 1979; Metz 1978; Valli 1986) but this dimension of school life has often been overlooked in large scale surveys. It is expected that when students have adult-directed and supportive contacts with teachers, they will learn the rules and norms that foster a greater measure of success at work, represented by higher hourly wages.

The regression includes five measures of student-teacher relations. First, differences in wages between the genders can be linked to relations between teachers and students. Table 4.3 shows that women who attend schools where teachers spend more time in nonclass ancillary activities report higher wages. The ancillary activities include tutoring, conducting makeup-work sessions, contacting employers and counseling students, as well as reading materials related to their profession and completing administrative paperwork. Women's wage is depressed by having teachers who spend more time in educational "contact hours," defined here as directing more formal teaching activities with groups (in classes and in extracurricular activities, and less time in school or classroom student monitoring).

Second, women benefit economically from more frequent individual or "personal" types of classroom learning experiences (group or small group learning activities/individual instruction). They also benefit from attending schools where teachers promote social skills (personal growth and human relations skills but not academic achievement).

Finally, levels of teacher (and parental) interest in the school and education is associated with a wage advantage for women; the direction of effects is similar but not statistically significant for males. This finding calls for additional study, since little is known
about "quality" of parental involvement in educational institutions (e.g., see a review about research on parental participation in school by Rutter, 1983).

However, for males, equation 2 of table 4.4 shows that teacher time in ancillary activities on behalf of students lowers students' wages. Unlike for females, the direction of effects is positive for attending schools where teachers spend more time in contact activities with students.

**Disciplinary Climate.** Even though it is difficult to untangle the feedback effects of discipline and other variables, evidence pertaining to the relationship between post-school outcomes and school discipline (or the ideology of control in schools) suggests this dimension might be important (e.g., Willis 1977; McNeil 1986). Yet, a high percentage of class time devoted to discipline might be a reaction to disorder. Nevertheless, school discipline could have a bearing on employment outcomes in workplaces where employers do not emphasize academic achievement.

Estimates from two measures of disciplinary climate presented in equations 2 show that for both females and males, time in class discipline and school-level rule enforcement are not of statistical importance to wages. In passing, it is worthwhile to note that the direction of effects of class discipline on wages is as expected between the genders, while rule enforcement is positive only for women.

**Student Involvement.** Both theory and common sense should tell us that the more involved students become in their school, the better off they will be later in life. Schools are organizations with rules
and sanctions about relations with other members, following procedures and taking initiative. In short, students who are more involved in school life should report a wage advantage, because they are likely to be better prepared to cope with demands of the work organization.

Five measures of student involvement are included in the above tables. Perhaps the variables in this category more precisely tap the "range of student involvement," because absence and employment suggest lower involvement in school life than do athletics, grades and leadership.

In the case of females, only absence shows a significant contribution to wages, and it is negative as expected. All of the other school involvement variables are in the expected direction, however, although not statistically significant. For example, working more hours in a job while in school just misses reaching statistical significance. The pattern could represent an interest in involvement with organizations, as well as the more traditional interpretation of acquiring technical skills and displaying interest in employment.

For males, only grades as a measure of student involvement have a bearing on wages. Unlike Hanks and Eckland's results (1976), the benefits from participation in athletics is not a statistically significant predictor, although it is in the expected direction (as is high school employment). Leadership has an interesting (but nonsignificant) influence on pay, however.

Early Employment Experiences. Equations 3 present the net contributions from the measures of early employment experiences examined in this study, with three variables included as controls.
These variables add an additional 5% to the total explained variance for women, but only 2% for males.

For women, either form of employer training adds a wage advantage. On-the-job training has a depressing effect for males, however. No significant influences emerge for either group from the measure of job complexity (time with things).

Of the three variables representing labor market experiences, the greater the time unemployed, the lower women's wages. Although the direction of effects is the same for males, the relationship does not reach statistical significance in this equation. However, both females and males report higher wages if they hold jobs in the core economic sector, but hours worked on that job are relatively unimportant.

Adding these six variables to the model suggests that for women (a) absenteeism affects wages through them and (b) the contribution to part time employment is suppressed when they are excluded. For males, it is evident that the influences of parental status and teacher contact time operate through these variables, and leadership were suppressed. What these findings suggest is that estimates are likely to be biased in the above ways if measures of employment experiences are excluded from analyses.

Work Experience. Equations 4 add a control for work experience, as measured in the total time employed from 1980-1984. Two noteworthy effects emerge.

For both genders, experience has a direct net effect on wages (B = .14), as past research in the human capital tradition has indicated. However, adding the measure of experience reveals the positive
influence of unemployment on the wages of males that was suppressed in equation 3; excluding time in the labor force hides the influence of unemployment.

Summary of Findings by Gender. There is qualified support for the hypothesis that school background has direct net effects on wages in the early employment period. However, all schooling experiences are not of equal economic value, and moreover, experiences contribute more to the wages of females than males.

As Table 4.3 shows, of the school variables, the strongest predictor of wages for women is teacher time in ancillary activities with students (B= .16). The strongest predictor for males of the theoretical variables in Table 4.4 is percentage of class time devoted to instruction (B= -.10), followed by number of trade courses (B= .09).

It seems that noncollege women primarily are being prepared for jobs in which social skills are rewarded and academic achievement is not particularly valued. To ascertain whether this might be the case, field data were obtained from teachers and students in vocational programs who are being prepared for employment after graduation. The results from the field study will be presented in the next chapter.

Race Differences

Following the strategy for gender, four equations are estimated for each of the two races. The results are presented in Tables 4.5 and 4.6. Equation 1 in each table includes the total effects on wages of residence, family and personal characteristics of students. Equation 2 presents the net effects of the four measures of school background.
Table 4.5 Regression for Blacks of Wages on Family, School and Early Employment Experience Variables.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
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<tr>
<td></td>
<td>b</td>
<td>B</td>
<td>b</td>
<td>B</td>
</tr>
<tr>
<td>Intercept</td>
<td>2.0</td>
<td>-1.1</td>
<td>-0.42</td>
<td>-1.1</td>
</tr>
<tr>
<td>Rural Community</td>
<td>-0.23</td>
<td>-0.03</td>
<td>0.29</td>
<td>0.04</td>
</tr>
<tr>
<td>School Size</td>
<td>0.53</td>
<td>0.17**</td>
<td>0.70</td>
<td>0.22**</td>
</tr>
<tr>
<td>Family/Personal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents' Occup.</td>
<td>-0.01</td>
<td>-0.03</td>
<td>-0.01</td>
<td>-0.04</td>
</tr>
<tr>
<td>Sex</td>
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<td>-0.11*</td>
<td>-0.50</td>
<td>-0.12*</td>
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<td>0.03</td>
<td>-0.00</td>
<td>-0.00</td>
</tr>
<tr>
<td>Academic Emphasis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BusVoc. Track</td>
<td>1.2</td>
<td>.19***</td>
<td>1.5</td>
<td>.22***</td>
</tr>
<tr>
<td>Academic Track</td>
<td>0.75</td>
<td>.15**</td>
<td>0.73</td>
<td>.15**</td>
</tr>
<tr>
<td>CO-OP/Work-Study</td>
<td>2.6</td>
<td>.35***</td>
<td>2.3</td>
<td>.30***</td>
</tr>
<tr>
<td>% '78-79 College</td>
<td>0.02</td>
<td>.16**</td>
<td>0.02</td>
<td>.19**</td>
</tr>
<tr>
<td># T/I Courses</td>
<td>0.08</td>
<td>0.04</td>
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<td>0.07</td>
</tr>
<tr>
<td>Absolute Grades</td>
<td>-0.61</td>
<td>-0.07</td>
<td>-0.89</td>
<td>-0.10</td>
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</tbody>
</table>
Table 4.5, continued

**Student-Teacher Relations**

<table>
<thead>
<tr>
<th>Category</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Skills</td>
<td>.28</td>
</tr>
<tr>
<td>Disinterested</td>
<td>.44</td>
</tr>
<tr>
<td>Adults</td>
<td>.12*</td>
</tr>
</tbody>
</table>

**Disciplinary Climate**

<table>
<thead>
<tr>
<th>Category</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Class Time Discipline</td>
<td>-.26</td>
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**Student Involvement**

<table>
<thead>
<tr>
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<th>Correlation</th>
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</thead>
<tbody>
<tr>
<td>Athletics</td>
<td>.66</td>
</tr>
<tr>
<td>No. Leader Roles</td>
<td>.22</td>
</tr>
<tr>
<td>Hours HS Job</td>
<td>.02</td>
</tr>
</tbody>
</table>

**Employment Experiences**

<table>
<thead>
<tr>
<th>Category</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time on 1st Job</td>
<td>.31</td>
</tr>
<tr>
<td>1st Job Clerical</td>
<td>-1.0</td>
</tr>
<tr>
<td>Time w/Things</td>
<td>.27</td>
</tr>
<tr>
<td>Jcb Hours, '84</td>
<td>.02</td>
</tr>
<tr>
<td>Offsite Training</td>
<td>-.47</td>
</tr>
<tr>
<td>Months Unemployed</td>
<td>-.23</td>
</tr>
<tr>
<td>Core Industry, '84</td>
<td>-.60</td>
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</table>
Table 4.5, continued

<table>
<thead>
<tr>
<th></th>
<th>Duncan Score, '84</th>
<th>Work Experience</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>.03</td>
<td>.23***</td>
</tr>
<tr>
<td>Work Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.00</td>
<td>.05</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Unadjusted $R^2$</th>
<th>Adjusted $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td>.37</td>
<td>.42</td>
</tr>
<tr>
<td>Standard Deviation Wages</td>
<td>2.14</td>
<td></td>
</tr>
</tbody>
</table>

* $p < .05$
** $p < .01$
*** $p < .001$
Table 4.6 Regression for Whites of Wages on Family, School and Early Employment Experience Variables.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>B</td>
<td>b</td>
<td>B</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.8</td>
<td>2.4</td>
<td>2.7</td>
<td>2.0</td>
</tr>
<tr>
<td>Rural Community</td>
<td>-.79</td>
<td>-.12***</td>
<td>-.76</td>
<td>-.12***</td>
</tr>
<tr>
<td>School Size</td>
<td>.18</td>
<td>.05</td>
<td>.04</td>
<td>.01</td>
</tr>
<tr>
<td>Parents' Occup.</td>
<td>.02</td>
<td>.07*</td>
<td>.02</td>
<td>.07*</td>
</tr>
<tr>
<td>Sex</td>
<td>-1.2</td>
<td>-.22***</td>
<td>-1.2</td>
<td>-.21***</td>
</tr>
<tr>
<td>Married, '84</td>
<td>.27</td>
<td>.05</td>
<td>.49</td>
<td>.09**</td>
</tr>
<tr>
<td>Academic Emphasis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BusVoc. Track</td>
<td>.88</td>
<td>.10**</td>
<td>.73</td>
<td>.09**</td>
</tr>
<tr>
<td>Academic Track</td>
<td>-.13</td>
<td>-.02</td>
<td>-.09</td>
<td>-.01</td>
</tr>
<tr>
<td>CO-OP/Work-Study</td>
<td>-.44</td>
<td>-.05</td>
<td>-.30</td>
<td>-.03</td>
</tr>
<tr>
<td>% '78-79 College</td>
<td>.01</td>
<td>.05</td>
<td>.01</td>
<td>.05</td>
</tr>
<tr>
<td># T/I Courses</td>
<td>.21</td>
<td>.08*</td>
<td>.17</td>
<td>.06*</td>
</tr>
<tr>
<td>Absolute Grades</td>
<td>-.01</td>
<td>-.00</td>
<td>.03</td>
<td>.00</td>
</tr>
</tbody>
</table>
Table 4.6, continued

**Student-Teacher Relations**

<table>
<thead>
<tr>
<th>Social Skills</th>
<th>.46</th>
<th>.06*</th>
<th>.44</th>
<th>.06</th>
<th>.38</th>
<th>.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disinterested Adults</td>
<td>.53</td>
<td>.10**</td>
<td>.65</td>
<td>.12***</td>
<td>.60</td>
<td>.11**</td>
</tr>
</tbody>
</table>

**Disciplinary Climate**

| % Class Time Discipline            | -.28 | -.07**| -.30 | -.07**| -.29 | -.07**|

**Student Involvement**

<table>
<thead>
<tr>
<th>Athletics</th>
<th>.57</th>
<th>.07**</th>
<th>.65</th>
<th>.08**</th>
<th>.68</th>
<th>.08**</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Leader Roles</td>
<td>-.06</td>
<td>-.02</td>
<td>-.06</td>
<td>-.02</td>
<td>-.06</td>
<td>-.02</td>
</tr>
<tr>
<td>Hours HS Job</td>
<td>.01</td>
<td>.06*</td>
<td>.01</td>
<td>.05</td>
<td>.01</td>
<td>.05</td>
</tr>
</tbody>
</table>

**Employment Experiences**

<table>
<thead>
<tr>
<th>Time on 1st Job</th>
<th>-.01</th>
<th>-.00</th>
<th>-.19</th>
<th>-.04</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Job Clerical</td>
<td>.21</td>
<td>.03</td>
<td>.14</td>
<td>.02</td>
</tr>
<tr>
<td>Time w/Things</td>
<td>-.15</td>
<td>-.06*</td>
<td>-.15</td>
<td>-.06*</td>
</tr>
<tr>
<td>Job Hours, '84</td>
<td>.00</td>
<td>.02</td>
<td>-.00</td>
<td>-.00</td>
</tr>
<tr>
<td>Offsite Training</td>
<td>-.53</td>
<td>-.06*</td>
<td>-.48</td>
<td>-.06*</td>
</tr>
<tr>
<td>Months Unemployed</td>
<td>-.05</td>
<td>-.08**</td>
<td>-.01</td>
<td>-.01</td>
</tr>
<tr>
<td>Core Industry, '84</td>
<td>2.8</td>
<td>.21***</td>
<td>2.7</td>
<td>.20***</td>
</tr>
</tbody>
</table>
Table 4.6, continued

<table>
<thead>
<tr>
<th>Duncan Score, '84</th>
<th>Unadjusted $R^2$</th>
<th>Adjusted $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.07</td>
<td>.07</td>
</tr>
</tbody>
</table>

| Work Experience   | .11              | .09            |
|                   | .16              | .14            |
|                   | .18              | .15            |

| Standard Deviation Wages | 2.72 |

* $p < .05$
** $p < .01$
*** $p < .001$
Equation 3 shows the effects of early labor market experiences on wages, while Equation 4 estimates the contribution of work experience.

Table 4.5 shows that the model explains over one-third of the total variance (adjusted $R^2 = .34$) in the wages of blacks (see bottom of table 4.5). Compared to blacks, however, the contribution to explained variance in the wages of whites is less than half (adjusted $R^2 = .15$).

Residence and Family/Personal Background. Six measures of residence and family/personal characteristics were identified in preliminary analysis (see footnote 11). The tables show that these characteristics make distinctly different contributions to the wages by race.

Blacks attending a larger school receive higher pay than other blacks. Pay for whites living in a rural area is lower than for whites in non-rural areas. Regardless of race, however, being female confers a wage disadvantage.

It is noteworthy that no family/personal measures in this study (except for gender) are significant predictors of wages for blacks. That is, the parental status of noncollege blacks neither inflates nor depresses their wages. For whites, on the other hand, family background does influence wages as status attainment research has shown. As noted, being female produces a wage disadvantage for whites, while being married is associated with higher hourly pay.

School Background. The school background variables of Table 4.5 contribute nearly all of the explained variance for blacks ($R^2 = .31$). However, only two percent of the variance in the model for whites of
Table 4.6 is due to the school variables.

**Academic Emphasis.** Enrollment in business vocational and cooperative education/work-study (CO-OP) programs have important positive effects on the wages of blacks. The business vocational program provides a $0.19 per hour advantage, and a college prep program adds about $0.15. More important, the CO-OP work-study experience adds $0.35 per hour.

A school climate sending more students to college is beneficial to the wages of blacks. Those who attend a school with a greater percentage of students bound for college report higher wages. Interestingly, in preliminary analysis for the present study, however, no wage advantages were found from any type of coursework.

Like their black peers, white students also benefit economically when enrolled in business vocational programs ($B = .10$). However, unlike blacks, there is an economic payoff for taking more trade/industry courses. But, the results suggest that measures of academic climate better predict the wages of blacks than of whites.

**Student-Teacher Relations.** Only whites benefit from attending a school where teachers' goals are to develop social skills in students; this orientation to education has a positive influence on their wages.

As was found for the wages of females, both blacks and whites benefit who attend schools where teachers have low morale and parents are not interested in educational activities. Perhaps students disassociate themselves from school and look toward employment in such schools. However, this finding requires additional analysis, because
the results are difficult to explain within the context of the theoretical model.

**Disciplinary Climate.** Only one measure of the disciplinary climate was found in preliminary analysis to be an important predictor of the wages by race. For whites, the more class time teachers spend on discipline, the lower students’ wages. This finding could imply that noncollege youth are disciplined for work in ways that are detrimental to employment success. Or, it could mean that schools that emphasize discipline are attended by students with poor employment prospects. However, these propositions cannot be tested here.

**Student Involvement.** There is a positive influence on the wages of blacks from participation in school-sponsored athletics and from a higher number of leadership roles in extracurricular activities. Whites also benefit from athletics (but not leadership). Members of both races receive higher pay if they were employed more hours while in high school.

It is likely that students choose either athletics or work while in high school, however, so that the two effects are representative of students' differential interests in organizations.

**Early Employment Experiences.** Equation 3 shows the estimates obtained from adding four measures representing students' labor market experiences and three controls.

Of the control variables, blacks who take a first job in the clerical field report lower pay than blacks who do not. Working in a job requiring them to spend most of their time with machinery and equipment (time with things) boosts their wages. Whites report lower
pay from working in a less complex job, however. Tuition reimbursement for training is relatively unimportant for blacks, but leads to lower pay for whites.

Neither race group benefits significantly from staying a longer period of time in the first job. Moreover, the estimates from the labor market experiences for noncollege blacks paint a rather bleak picture about their fates. They do not get less hourly pay from being unemployed longer, nor do they benefit from a job in the core sector or from working more hours. On the other hand, whites are likely to report higher wages from a core job and lower wages from less time unemployed.

Work Experience and Job Prestige. Equation 4 adds as controls a measure of time employed and one for occupational prestige. For blacks, the higher the prestige, the higher their wages. Whites gain from more weeks worked.

Adding these variables produces some changes in the coefficients of other variables also, as was found to be the case for the gender groups. For blacks, the following effects were suppressed in previous equations: the depressing effect of absolute grading and percentage of class time devoted to discipline, and the benefit of working in high school. The equations for whites show that the contributions of courses in the trades operate through weeks worked; although the negative effects of unemployment disappear with these controls included, the reverse could also be true because they are measured concurrently.
Summary of Findings by Race. The school variables explain two-thirds of the total explained variance in the wages of blacks, but only 2% of the total explained variance for the wages of whites. For blacks, the strongest predictor of wages from the theoretical variables is CO-OP/work study experiences ($B = .35$). Enrollment in business vocational programs is also important ($B = .19$). For whites, the strongest theoretical variables are disinterested adults ($B = .11$) and business vocational track ($B = .09$).

As the patterns of correlations suggested, specific formal schooling experiences are particularly important influences on the wages of noncollege blacks. On the other hand, the wages of their white peers show a few comparable effects from schooling. School background is relatively less important in explaining wage differentials than is obtaining a core sector job and gaining more work experience.

Conclusions about the Direct Effects Hypothesis

A primary goal of the present study is to determine whether high schools equip youths who enter the labor market after graduation with the social and basic organizational skills necessary to do well in their jobs. The first hypothesis predicts that the measures of schools -- especially those associated with adult-directed support -- have important direct influences on the wages of noncollege students in the early period of employment. 24

The findings suggest that schools do "make a difference" in contributing to the early economic outcomes of students. First, the
differences are both favorable and more pronounced for women from supportive social relations in school than for any of the four status groups of the study, and particularly much more than for men. In fact, no direct measures of social support contributed to higher wages for males. On the other hand, higher wages for women are linked to a greater number of hours teachers devote to "ancillary" activities, such as contacting employers and completing administrative duties. Higher wages also accrue from more frequent participation in individualized learning activities such as small group class discussions, from more time on instruction/skills practice and from business vocational training. Teachers who stress social skills -- at the expense of academic ability -- help women prepare for the jobs they are likely to obtain.

Second, blacks benefit from none of the measures of school support, such as teacher time and goals. Indeed, the school variables that predict higher wages for blacks are more characteristic of formal rather than informal socialization -- although it could be argued that both forms of socialization are reflected in participation in the CO-OP/work study program, and in the business vocational and academic tracks. The only measure suggesting a potential value of informal socialization for blacks is percentage of the previous class who attend college. The socialization influences probably more closely reflect the direct effects of peer socialization, however, rather than those of adults such as teachers.

A second goal is to ascertain whether school background influences provide economically comparable contributions to different social
groups. It was expected that the contributions from schools do not vary by gender or race. However, hypothesis four must be rejected: there are clearcut differences in the relationship between school background and wages, as discussed above.

The results from tests of the second and third hypotheses are presented in the following section. They reveal whether or not schools indirectly affect wages through their impact on the early employment experiences of youths not bound for college.

**Indirect Effects Models**

The question remaining unanswered that was posed by the model of figure 1.1 is, How much of the contribution to the variation in wages from school background can be attributed to variation in the mediating effects of early employment experiences? This question is different than the previous one about direct effects of school background. Direct effects estimates provide information about changes in the theoretical variables when intervening variables have been held constant. The discussion in this section examines the variation in wages when changes in school background lead to changes in the labor market experience variables, which in turn affect wages. It is based on a decomposition of the indirect effects of school background on wages appropriate for fully recursive models (Alwin and Hauser 1975).

The indirect effects estimates are presented in Table 4.7 for the two genders, and Table 4.8 for the two race groups.
Table 4.7 Indirect Effects of School Background Through Early Employment Experiences, Females and Males.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Total Effects</th>
<th>Direct Effects</th>
<th>Indirect Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Females</td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td><strong>Academic Emphasis</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BusVoc Track</td>
<td>.12</td>
<td>.01</td>
<td>.12</td>
</tr>
<tr>
<td># Trade/Ind. Courses</td>
<td>-.01</td>
<td>.09</td>
<td>.00</td>
</tr>
<tr>
<td>% Class Time in Instruction</td>
<td>.10</td>
<td>-.10</td>
<td>.10</td>
</tr>
<tr>
<td><strong>Student-Teacher Relations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher Time, Ancillary</td>
<td>.16</td>
<td>-.08</td>
<td>.17</td>
</tr>
<tr>
<td>Teacher Time, Teaching</td>
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<td>.08</td>
<td>-.08</td>
</tr>
<tr>
<td>Individual Learning</td>
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<tr>
<td>Social Skills</td>
<td>.10</td>
<td>.01</td>
<td>.10</td>
</tr>
<tr>
<td>Disinterested Adults</td>
<td>.08</td>
<td>.03</td>
<td>.08</td>
</tr>
<tr>
<td><strong>Disciplinary Climate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Class Time on Discipline</td>
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<td>-.05</td>
<td>-.01</td>
</tr>
<tr>
<td>School Rules</td>
<td>.05</td>
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<td>.04</td>
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</table>
Table 4.7, continued.

Student Involvement

<table>
<thead>
<tr>
<th></th>
<th>.03</th>
<th>.04</th>
<th>.02</th>
<th>.04</th>
<th>.01</th>
<th>.00</th>
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</thead>
<tbody>
<tr>
<td>Athletics</td>
<td>.01</td>
<td>.09</td>
<td>-.02</td>
<td>.09</td>
<td>.03</td>
<td>.00</td>
</tr>
<tr>
<td>Grades</td>
<td>.03</td>
<td>-.06</td>
<td>-.06</td>
<td>-.06</td>
<td>-.03</td>
<td>.00</td>
</tr>
<tr>
<td>No. Leader Roles</td>
<td>-.07</td>
<td>-.01</td>
<td>-.05</td>
<td>-.02</td>
<td>-.02</td>
<td>.01</td>
</tr>
<tr>
<td>Absent, not Ill</td>
<td>.06</td>
<td>.02</td>
<td>.08</td>
<td>.00</td>
<td>-.02</td>
<td>.02</td>
</tr>
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</table>

% Model Sum of Squares (absolute values)

<table>
<thead>
<tr>
<th></th>
<th>16.7</th>
<th>9.3</th>
<th>23.9</th>
<th>14.0</th>
<th>7.2</th>
<th>4.7</th>
</tr>
</thead>
</table>


Table 4.8 Indirect Effects of School Background Through Early Employment Experiences, Blacks and Whites.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Total Effects</th>
<th>Direct Effects</th>
<th>Indirect Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Blacks</td>
<td>Whites</td>
<td>Blacks</td>
</tr>
<tr>
<td><strong>Academic Emphasis</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus Voc Track</td>
<td>0.19</td>
<td>0.10</td>
<td>0.22</td>
</tr>
<tr>
<td>Academic Track</td>
<td>0.15</td>
<td>-0.02</td>
<td>0.17</td>
</tr>
<tr>
<td>CO-OP Program</td>
<td>0.35</td>
<td>-0.05</td>
<td>0.30</td>
</tr>
<tr>
<td>% in College</td>
<td>0.16</td>
<td>0.05</td>
<td>0.20</td>
</tr>
<tr>
<td># T&amp;I Courses</td>
<td>0.04</td>
<td>0.08</td>
<td>0.03</td>
</tr>
<tr>
<td>Absolute Grades</td>
<td>-0.07</td>
<td>-0.00</td>
<td>-0.12</td>
</tr>
<tr>
<td><strong>Student-Teacher Relations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Skills</td>
<td>0.04</td>
<td>0.06</td>
<td>-0.01</td>
</tr>
<tr>
<td>Disinterested Adults</td>
<td>0.12</td>
<td>0.10</td>
<td>0.15</td>
</tr>
<tr>
<td><strong>Disciplinary Climate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Time Class Discipline</td>
<td>-0.08</td>
<td>-0.07</td>
<td>-0.12</td>
</tr>
<tr>
<td><strong>Student Involvement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Athletics</td>
<td>0.10</td>
<td>0.07</td>
<td>0.06</td>
</tr>
<tr>
<td>Leadership</td>
<td>0.14</td>
<td>0.02</td>
<td>0.14</td>
</tr>
<tr>
<td>Hours HS Job</td>
<td>0.10</td>
<td>0.06</td>
<td>0.10</td>
</tr>
<tr>
<td>% Model Sum of Squares (absolute values)</td>
<td>31.9</td>
<td>10.6</td>
<td>41.7</td>
</tr>
</tbody>
</table>
Gender Differences

Table 4.7 clearly shows that individual measures of school background have minimal to no effect on wages through the labor market experiences included in this study for either gender. Because of their theoretical contributions, it is noteworthy that the indirect effects in the model for women of ancillary teacher time and high school employment have opposite signs from the total or direct effects. There are corresponding sign changes for males in trade courses completed, class time in instruction, and disinterested adults. The interpretation is that these measures of schooling have different effects on the labor market variables than they do on wages. However, none of the coefficients is statistically significant, based on the probabilities imposed in tables 4.3 and 4.4.

Decompositions of the variance explained by the models reveal that for women, the (absolute value) increment due to the labor market experience variables is 7.2% (16.7% - 23.9%). For males, 4.7% of the variance is due to these variables (9.3% - 14.0%).

Race Differences

Turning to Table 4.8, it is obvious that indirect effects are quite small also for the two race groups. Although not statistically significant, attention is drawn to the indirect effects in the models for blacks that have opposite signs from the total or direct effects. They are (a) negative for business vocational track, percentage of college-bound students, and disinterested adults; and (b) positive for absolute grading and class discipline. The models for whites show sign
changes for disinterested adults and athletics.

For blacks, decomposition shows that increment in explained variance is 9.8% (31.9% - 41.7%); the increment is 7.0% for whites.

**Conclusions about the Indirect Effects Hypothesis**

The second and third hypotheses predict that schools influence the wages of youth through their impact on early employment experiences. The findings reported above suggest that the school variables have minimal indirect influence on wages in the years immediately after high school.

For those of minority status, this finding suggests that if schools do prepare them for work, it is not likely to be in ways that increase their time in a first job, hours worked, chances of getting a job in the core economic sector, or decrease their unemployment. Indeed, the results favor the direct effects hypothesis: school background is more likely to influence wages directly than indirectly. This finding is explored further in the following chapter.

**SUMMARY AND DISCUSSION**

Based on the model of figure 1.1, three sets of hypotheses are specified about the direct and indirect effects of school background on wages. In addition, a fourth hypothesis predicted no differences in wages for gender and race groups.

**Contributions of the Model**

For the gender groups, the variables included in the model explain nearly 20% of the total explained variance in wages for females, but only 10% of the variance for males. However, the school variables
contribute over one-third of that variance for females -- but less than
one-fifth for males. For the race groups, schooling explains over one-
third (34%) of the total variance in wages for blacks, but a more
modest 15% for whites. The school variables contribute two-thirds of
the explained variance for blacks (15%), but 2% for whites.

The most important predictors of wages for females of all variables
in the model are teacher time in ancillary duties (B = .17) and rural
residence (B = .17). For males, they are employment in the core sector
(B = .16), followed by work experience (B = .14), and rural residence
and marital status (B = -.13 and .13, respectively). Blacks especially
benefit from participation in a CO-OP/work study program (B = .30),
although the contributions from school size and prestige of job cannot
be ignored (B = .23). For whites, the most important predictors are
core sector job and sex (male) (B = .20 and -.20, respectively).

Discussion

The findings reported in this chapter suggest that women derive
important economic benefits from informal socialization activities in
school with teachers. Indeed, the patterns of findings suggest that
women more than males benefit economically from school experiences in
which they are active participants. The benefits are nearly all for
wages directly, however, rather than through the labor market
experiences often associated with higher wages.

On the other hand, there are many fewer influences of school
background for the race groups than were predicted. For blacks, most
advantages are from specific experiences, such as participation in a
specific curricular program (business vocational or academic prep) and
in a CO-OP/work-study program.

One interpretation is that, in contrast to men, the contributions from the processes of education for women are more useful in work settings than are the objective measures of education, such as grades and coursework. Willis' (1977) study of working class males revealed a subculture that encouraged them to avoid the academic demands made by schools, in favor of preparing for employment on the shop floor (in that case, courses in the trade/industry area would be beneficial). The positive effects for women in the present study now suggest that had Willis also studied working class females in schools, he might have made more explicit his inferences about the contributions of certain managerial teacher styles for males and females.

The study findings also suggest that, at least for noncollege women, measures of track and courses do not fully incorporate the complex processes associated with success in the school-to-work transition, as measured by their wages. Although participation in the business vocational program for women and number of trade/industry courses for males arguably might provide social capital benefits of equal or even greater than those ascribed to human capital, no study has attempted to ascertain directly whether or not this is the case.

The analysis in this chapter has focused primarily on the relationship between school socialization and employment outcomes. Nontechnical skills for work have been considered a latent (unmeasured) outcome of school social capital. The findings suggest that informal relations with teachers could contribute to the higher wages of women because they acquire nontechnical skills for work. The discussion in
the following chapter explores some of the important findings presented above in relation to social capital and nontechnical skills. It describes social relations between women enrolled in business vocational programs and their teachers. It is anticipated that informal socialization helps women acquire some of the basic nontechnical social and organizational skills associated with a greater measure of success in the early employment period.
CHAPTER V
SOCIAL CAPITAL AND THE SKILLS OF YOUNG WOMEN

It was suggested in earlier chapters that research in the field of social stratification and mobility has neglected the fundamental question of why, or in which respects, formal schooling contributes to occupational success. Although the well-documented connection between years of schooling and job status can be explained in more than one way, it is plausible that students acquire both technical and non-technical skills and information in school that help them later on the job. A similar proposition was postulated over twenty years ago by Dreeben (1968). Dreeben identified normative differences between schools and families, such as rules about particularism, competition, punctuality, and cheating. He then demonstrated how young children learn to adjust to bureaucratic norms during their early school years. This form of learning continues throughout the school career, but in later years the focus likely shifts to adjusting to the workplace as teachers and students anticipate the future situations of prospective graduates. The theme of this chapter is that vocational schools are particularly sensitive about workplace norms, and they have evolved a subculture for teaching students about those norms.

The analyses of the HS&B dataset described in the previous chapter provides some support for the proposition that social relations in school, especially those between students and teachers, affect future employment outcomes. A striking finding is that variables representing
social relations with teachers variables predict wages primarily for females. The wages of noncollege women are higher if they:

(a) attend schools where teachers spend more time with students in ancillary professional activities, such as conducting makeup-work sessions and contacting employers of students;
(b) attend schools where teachers stress the development of social skills by promoting personal growth and human relations skills while de-emphasizing basic literacy skills and academic mastery;
(c) attend schools where teachers spend fewer contact hours with students in and out of class, but devote a greater percentage of class time to instruction and/or skills practice;
(d) participate more frequently in individualized learning activities, such as small group class discussions; and
(d) part time employment.

In short, women heading for work benefit from more frequent interpersonal interactions with teachers. They also obtain a wage advantage from participating in a business vocational program.

However, the measures of school social relations in the HS&B are at best indirect and rudimentary. To obtain the kind of information that is needed to understand the subtleties involved in the development of skills from interpersonal interactions, it is necessary to observe classrooms and talk with teachers, students and employers. This chapter reports the results of such an investigation. Although the insights are based on a limited sample, they will suggest how school social capital helps young women acquire the social skills and
information for work in the normal course of training programs.

The basic idea that guides this phase of the research is that social relations with concerned adults and their "social capital" resources help young prospective workers acquire nontechnical skills that affect success on the job. In prior chapters, these skills have been characterized alternately as nontechnical human capital skills, and as social and/or "organizational skills." Nontechnical skills include rules orientation, dependability and correct work behavior, and self-directed activities (Argyris 1957; Edwards 1979). These skills are manifest when individuals: form alliances with others of higher status to bolster one's own status (Kanter 1977); display "working knowledge" or an image of confidence to gain informal support across formal lines (Kusterer 1977); use strategies such as ingratiation, persuasion and acquiescence (Mainiero 1986); and decipher events and anticipate problems with authority structures and task demands (Corwin 1986). Most previous work has equated nontechnical skills explicitly or implicitly with indicators such as higher or specialized education and the functional complexity of tasks (e.g., Halaby 1978). However, the research reported in this chapter aims to determine which of these skills might be of greatest benefit for lower echelon workers, and whether schools help students acquire them.
REVIEW OF THEORY AND RESEARCH OBJECTIVES

It is instructive to review the theory and evidence outlined in Chapters 1 and 2 concerning the role of school social relations, since the hypotheses for this chapter are derived from them.

Coleman and Hoffer (1987; see also Coleman 1988) argue on the basis of findings from research on public and private high schools that there is a "Catholic school advantage" not found in most public schools. They believe that Catholic schools provide students with a set of resources that reside in the social relations with adults in the school and in the school's religious community. These resources are the norms, expectations, information channels, and sanctions likely to encourage student success in school and work. Unlike the "personal goods" notion of traditional human capital -- in which one invests in one's own schooling and work experience -- social capital is a "public good." Other scholars have argued similar points about how people contribute time and effort toward the personal development of others because they share common beliefs, values, and interests. As a result of these contributions, youths become better integrated into the adult world.

Research Objectives

Is there yet another type of school community that provides students with a set of resources that reside in social relations with adults? This chapter investigates the proposition that vocational high schools serve as "value communities." They harbor interested adults
(teachers, administrators and members of the business community) who promote the norms, work habits and expectations consistent with success at work. The "value" that guides such schools is preparing students for employment, and providing them with some career choices. High school vocational programs currently serve more than one-third of this nation's youth (The William T. Grant Foundation 1988). Consequently, they have more prevalent norms for work than do other types of educational value communities identified by Coleman and associates, such as private boarding schools.

Empirical findings from large-scale longitudinal studies demonstrate that women who attend high school business vocational programs earn higher wages than their noncollege peers in a general curriculum (e.g., Woods and Haney 1981; Campbell et al. 1986). An analysis of longitudinal data obtained from a nationally representative sample of noncollege women and analyzed using extensive controls (see Chapter 4) shows that the wage advantage is not limited to benefits from technical jobs or higher grades. The implication is that business vocational programs as value communities provide forms of socialization for work that contribute to a wage advantage for women headed for work.

Traditionally, women have been encouraged to enter unpaid rather than paid employment. Consequently, little is known from past research about how their skills (other than their academic ability) are related to employment outcomes, and even less is known about how schooling affects the development of such skills. Valli (1986) spent a year intensively studying one cooperative office education program in a comprehensive Midwest high school. She found that young women learned
to be cooperative with co-workers and eager to serve customers (exchange relations), and loyal to employers and submissive to authority (authority relations). They also willingly accepted the "culture of femininity" and traditional gender division of labor at work (gender relations). She urged that women should be instructed in open discussions not only to embrace the necessary work habits and attitudes, but also to anticipate work situations and problems, learn how the workplace is organized and why, and become aware of the modes of thinking in work organizations. Yet, to the extent that such subjects are treated in vocational programs, there is evidence that students learn passive participation, punctuality, and direction-taking. Oakes (1985) found from extensive study in nearly 300 classrooms that when youth reject the norms of appropriate attitudes and behaviors, they encountered failure and unequal treatment. She concluded that acceptance of the norms and values indicated responsibility, which opened the options available to them to participate in more independence types of activities.

McNeil (1986, pp. 206 ff.) points out that we look too much at how much is learned in school, rather than at the nature of what is learned (e.g., behaviors and norms). She also stresses that the focus must be at the teacher level. Teachers have the ability to convey mastery of subject matter and creative thought; or to de-skill the role of student by practicing defensive teaching and "spoon-feeding" them content, by rewarding students for passive student behavior. She concludes that solutions to the problems of education are to be found in a careful study of the organizational context of schooling.
The objectives of the study reported in this chapter are to identify: (1) the social capital resources available to women from social relations with adults in high school work preparation programs, and (2) the relationship between these resources and the development of nontechnical work skills. Two basic questions guided this research:

- Do social relations in vocational programs contribute to the development of nontechnical skills for the workplace, and if so, what are the important circumstances of the acquisition process?
- Are all women likely to obtain equivalent benefits from school social relations, and if not, what accounts for the differences?

**Approach**

Findings from the present study are based on procedures described in Chapter 3. Data were obtained during personal interviews and classroom observations of 24 students enrolled in 11 business vocational programs at three area vocational high schools. All students are women who were in their last year of high school at the time of the study, and all but two are white. Additional information about each student was obtained from teachers, school records, and local employers.

Focusing exclusively on young women in one curricular program has some disadvantages. It does not permit a comparison group, and it limits the scope of generalizations. However, it also has advantages. It provides detailed information about educational experiences for a sample of young women with relatively equivalent family backgrounds who have been socialized for work in similar settings. Most of them will terminate their formal schooling with high school graduation. More
confidence can be placed in the findings about the effects of specific educational practices than might otherwise be possible with an undifferentiated sample, because variation in many potentially confounding variables is small.

The first section of this chapter describes the schools and programs selected for the field studies. The second section focuses on the types of social relations found between students and teachers in different business programs. The last section traces the contributions of social relations with teachers to nontechnical skills for work.

THE SCHOOLS AND BUSINESS COURSES

The vocational schools included in the study were chosen because they share similar geographic locations and local economies, as reflected in county unemployment rates and student dropout rates. Each school is located in a town or small city within a metropolitan area in Ohio, and each had been established for over fifteen years at the time of the study. All are under the jurisdiction of one state education system. They offer comparable curricular experiences in business education, and use the same general procedures for preparing students for employment. They report similar arrangements with their feeder schools, and vary minimally on their rules and regulations for academic and disciplinary conduct. Supervisors and teachers interviewed at each school agreed that enrollment levels and job placements for graduates have increased somewhat during the last 15 years, but that enrollment currently was less predictable than in the past.
At each school, the business program supervisor served as the liaison for the field studies. Each had been a cooperative office education (CO-OP) teacher at their respective schools. One supervisor still taught business classes part time. Most business teachers had been employed at their schools for at least several years; more than ten years was not uncommon. Many had taught only at that school. Only one teacher in this study was male.

One hundred seventy students were enrolled in the 11 business courses. All schools offered at least three of the four courses; one school offered all four (see chapter 3 for further information about the courses). The average class size, 15.5 students, is substantially smaller than the 25.0 (noncollege) students per teacher from the HS&B dataset reports (largely from comprehensive schools) analyzed in Chapter 4. Over 93% of the students in the 11 courses selected for study were female; nearly all were white. The four types of business courses from which students were sampled are as follows:

- **Executive Secretarial** (also called High Skills Stenography or Legal/Medical Secretarial): This course prepares students for employment in entry-level secretarial and typist positions, primarily in the industries of insurance/banking, professional services (health, legal and education) and, to a lesser extent, retail sales.

- **Accounting** (also called Computerized Accounting or Computing and Related Trades): This course prepares students for entry-level positions as accounting and billing clerks in similar industries as the Executive Secretarial course.

- **Clerical Services** (also called Office Specialist): Clerical services is a lower-level course offered in some schools as a "disadvantaged" course. It prepares students for typing and filing types of jobs.
Cooperative Office Education/Cooperative Business Education: CO-OP/CBE is a course combining coursework with employment. A formal agreement of responsibilities is signed by the school, student, parents, and employer. Students apply for CO-OP or CBE at the end of their junior year. Most have completed one year of executive secretarial or accounting courses; few students transfer from the clerical services course. Students must meet school criteria indicating readiness for employment in a business or office job. The employer supervises the work activities of students, and teachers observe students on the job.

CLASSROOM STRATEGIES AND SOCIAL RELATIONS

Two of the five days at each school were devoted to observing business and some academic classrooms at the three schools. In addition to taking frequent notes (usually openly but occasionally after a conversation, especially with non-business staff), I coded teacher-student classroom interactions at least once per class using Flanders interactive analysis techniques (1965). The Flanders method allows the observer to record at specific intervals (usually every five seconds) whether teachers or students are directing the classroom interactions. The remaining time at each school was devoted to interviewing students and teachers. For this analysis a typology developed by Metz (1978) proved helpful. It proposes that authority relations are a critical aspect in socializing youth, and that it is important in understanding teacher-student interactions to determine first whether the two groups share educational goals.

Learning Rules and "Rules About Rules"

A high degree of consensus had formed around the vocational mission. Consensus was facilitated by the highly focused and pragmatic nature of the mission. The formally stated goal is to prepare students
to get a job, preferably one related to their training. However, consensus was based on more than a desire to equip students with entry-level skills. Many students had come to the vocational school because of academic, personal, or social problems. This problematic aspect of the school culture encouraged teachers to adopt similar views about their students and shortcomings that needed to be corrected. Because staying at the vocational school meant adhering to the rules and regulations about attendance, behavior and grades, the school records of most students showed that nearly all showed at least some improvement since their transfer.

But the business program also imposed rules about attendance, behavior and dress. Some students didn't like the degree of rule enforcement, especially for dress. In one class, for example, no jewelry could be worn that might get caught in office equipment; in another, students had to wear clothing appropriate to the office (e.g., no jeans or sandals). Misbehavior such as skipping school or verbal abuse of teachers was strongly sanctioned.

Yet, enforcement was sometimes tempered by leniency, if their behavior was usually acceptable and the infraction was not disruptive to the functioning of the program or school. For example, one student left for an unexcused trip to Florida for spring break. Another got into a disagreement with a teacher over talking in class. However, both students had satisfactory work and the application of a sanction in both cases was more of a formality, for each usually had tasks completed and neither was perceived by staff as a troublemaker.

Indeed, teachers selectively screened students for difficult
assignments on the basis of their perceived attitudes and behaviors. Many of the teachers stated that students should not be assigned the more difficult activities, such as a CO-OP job or a high skills steno course, until they were "ready." Being ready meant being "mature" enough to work hard and follow rules. To many school staff, being mature in this sense was more important than the student's technical skills. Indeed, when teachers mentioned "basic entry-level skills" they often were referring implicitly or explicitly to demonstrations of maturity appropriate for work settings. Therefore, all teachers used classroom strategies that were either intended to promote the necessary level of maturity or to minimize problems with immature students.

Learning Normative Conformity

One strategy teachers used revolved around rewarding behavior that conformed to group standards. To that end, teachers often taught students in a group learning situation. Secretarial and high skills courses seemed well-suited to ongoing group learning activities. (Accounting courses were more likely to vary according to the teacher.) During a class, the teacher might note that "You (the group) are doing better on the one minute dictation drills (in shorthand), or "We did better last week than today- wonder why?" After one dictation session, all students took turns translating their shorthand writing orally, and the teacher would add missed information or correct mistakes in translation. Some were timid or hesitant about sharing translations, and for good reason. It was clear after several readings that most had made at least one error, causing teachers and students sometimes to laugh together over a mistranslation. Teachers often
asked how many students had problems with a particular shorthand symbol or stroke, and then used the blackboard to demonstrate what it should look like.

In this way, students not only learned from their own successes and mistakes, but also from others. Moreover, the process did not seem to introduce high levels of competition among the students, because teachers had not placed a high demand during regular classes on the individual student for demonstrating mastery, but often allowed the learning to be negotiated as a class activity. Also, activities were structured to minimize distractions in certain classes. For example, group shorthand drills and typing transcriptions were constrained by severe time limits, leaving little opportunity for personal conversations before the class ended. In these ways, students were implicitly learning that work is a demanding, time constrained, but cooperative process that must take priority over personal relationships.

Students in the secretarial course also took a fairly active role in asking questions of their teachers. In doing so, students were learning to seek information from authoritative sources. However, sometimes situations were structured so that students must look to one another for answers. For example, in demonstrations where students were at the blackboard, teachers encouraged them to ask questions of the demonstrator rather than of her. In that situation they learned that the person who is closest to a situation and therefore most familiar with it can also be an authoritative source of information.

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The principle seemed to be that authoritative information sometimes comes from the person in a position of authority, and sometimes from someone with on-the-job expertise.

To promote group loyalty while teaching the importance of confidentiality, a teacher at one school several days earlier had given each student a sealed envelope marked "Confidential, Do Not Open," in which she had placed a tootsie roll. Because no one had opened their envelopes until the designated time, all student were allowed to open them in class and eat the candy as a group reward. This case illustrates again that teacher-student relations often were based on collective activities in which rewards and sanctions were geared to group norms. Within this course, students learned that an individual's abilities were less important than how well the person follows the rules.

Learning Pragmatic Behavior

A second strategy that teachers used can be classified as utilitarian. Less group oriented and more individualized, it was usually used to teach students how to cope with daily work responsibilities. This strategy was frequently observed in accounting courses, and to some extent, in the clerical services courses. Both courses relied heavily on the use of equipment and technical procedures, which meant that students often worked individually. In addition, these courses frequently required students to take personal responsibility for completing a filing project or entering data using a software computer course. Although students asked the teachers questions -- and the teacher tried to anticipate problems -- they often
turned to each other for advice. Except for one accounting teacher, who frequently chose to use small group learning as a teaching strategy, regular group communication was minimized, and students were encouraged to work on their own. In the more formal classes (versus the labs), teachers tended to rely on a lecture-type format to convey information; for example, one accounting teacher spent a class period on how to create "if-then" statements for a computer course. The labs for these courses usually consisted of practice on a variety of equipment.

Despite the preference of teachers for individual learning, however, most students in these courses -- who had never held business-related jobs -- seemed less self-assured than students in other courses such as CO-OP and high skills or secretarial. When asked, one teacher volunteered that many students were in the accounting course because they had difficulty with personal and social skills. One teacher in charge of a computerized accounting course admitted that many of her students were "strugglers" in this regard. She added that they demonstrated little "work maturity":

Sometimes it takes them four or five years to build and stabilize a level of maturity for work . . . If they can be routinized in the classroom (to do their work), they will be okay, but if they cannot, they will do what they like (here and at work). They just are less mature. Many have lower tolerance levels with people and their friends, and this continues on the job.

She was then asked what kinds of "maturity-building" activities she believed would help them. She sometimes changed their lab schedule so that it did not follow what had been presented in class. This meant
that they had to be "creative to solve how to get their work done." She also stressed "time management" by not telling them priorities for completion of work tasks, so that they had to "struggle for a couple of weeks." However, she could not single out specific classroom activities designed to help them overcome what she had described as less mature social skills. Other teachers pointed out that vocational club activities (Office Education Association or OEA) were useful to some students in this way, although they admitted that officers and those with leadership types of duties were likely to be elected based on "popularity," rather than on evidence of the kinds of skills they had in mind.

Interestingly, the accounting teacher who saw many of her students as strugglers had spent a great deal of time with one of her students who had had a baby and missed much of the previous year's schoolwork. Believing that "Jody" was mature and willing to learn, she gave her individual attention. This attention included not only encouraging and sponsoring Jody to be an officer in the district-level vocational club OEA, but also staying with Jody after school while she made up missed assignments so she could graduate. An accounting teacher at another school made similar concessions for some students.

If a student is a good person (i.e., works hard and stays out of trouble), I give them encouragement - to let them know that they can do it (complete a particular classroom task or get a job they want).

But, not all students received intensive, personal commitments of this type from their teachers. Indeed, many of the students in
clerical services courses seemed to be looking for ways to become involved with their teachers. Many repeatedly asked the teacher what they were to do on an assignment, where equipment or supplies were located or which they should use, and whether they had completed the task correctly. Moreover, teachers seemed to be ambivalent about these contacts, and tended to give students mixed messages about what was expected of them. On one hand, they stressed that students must ask questions rather than completing an assignment incorrectly or trying to fix equipment they did not understand. In contrast to studies of vocational courses in comprehensive high schools (e.g., Valli 1986; Claus 1986), teachers seldom avoided answering questions. When they had been away from students for longer than a few minutes due to interviews conducted during class periods, they politely interrupted the interview to check on students. On the other hand, their tone of voice and gestures often suggested that "You (as seniors) shouldn't need constant supervision." Their ambivalence probably reflects in part that clerical services teachers in this study were less experienced than other teachers, and often had taken the job because it was the only one available at the time. Yet, the message they conveyed is that responsibility is complex, and work behavior requires discretion.

Learning Coercive Conformity

A third type of student-teacher interaction was often disciplinary, and at times even adversarial. In trying to determine why a school had far lower quality of instruction than its reputation suggested, McNeil (1986) found that the very tight control of course content led to student distrust. In the present study, relationships
stressing coercive conformity were observed most frequently in both the CO-OP and clerical services courses. Interestingly, students in these two courses were described by supervisors as the school's "best and worst students." Teachers also tended to rely heavily on individualized approaches to learning in both courses, and often used compliance and even coercion to obtain completion of tasks.

McNeil (1986) argues that much of what schools teach is small bits of knowledge and sequential learning transformed into assignments that are compatible with the bureaucratic process of the school. In the clerical services/office specialist course, each student worked on a "packet" or learning module until it was completed correctly. There seemed to be few chances for these students to engage in collective learning with the teacher; only in "office simulations" (to be discussed) were group interactions more common. Students frequently whispered or occasionally passed notes to classmates; others made excuses to "confer" with them by getting out of their chairs and walking around the room. Typing and filing assignments were repetitious (e.g., producing a mailable letter with no errors) and seemed to bore many students. Consequently, teachers spent much of their class time on maintaining discipline or responding to routine questions, which students seemed to think up to gain the teacher's attention.

To get students to complete their assignments, teachers constantly reminded them to "Get back to work," or called out "Busy, girls!" One senior clerical course teacher said she disliked being a disciplinarian first and an instructor second. She used schedules and
routines as a means of social control, even though she was aware that such activities probably decreased students' affiliation with the school (see Oakes 1985). She explained:

I have to schedule their work, otherwise they won't get it done. They miss school a lot and don't seem to care. They just don't seem to realize what they will face in their futures... I have to stress the business' view all the time, and they get to hate to hear that.

Few if any students were employed in a job related to their coursework. To given them a chance to earn how work tasks were interrelated and the importance of assuming responsibility for tasks, "office simulations" were held during the second semester. A simulation session lasts for at least several weeks (usually six to ten), during which time students rotate through several jobs (usually for a week) likely to be found in an office. During that time, students were assigned a particular job (e.g., shipping clerk, receptionist, office manager). Each was responsible for the tasks of that job, and for cooperating with other "employees." During these simulations, all problems had to be directed to the student office manager, and only the manager could request assistance from a teacher. The idea is that each student in turn has responsibility for solving problems with several jobs.

However, opportunities to learn problem solving skills were unequal. Some students never held decision-making jobs such as manager, either because the teacher did not think they were ready, or because the student didn't want the job. One clerical services teacher noted that
Many of these students have numerous personal and social problems and cannot handle more stress at school. We try not to push them if they don't seem ready for some tasks.

Teachers of the junior classes were particularly aware of how few social and personal skills these students had acquired before they entered the school. One teacher confided that

This fall we (junior teachers) used some project money to take our students to a nice restaurant. When the salad was served, all but two girls (students) began to eat their salad with their fingers.

This incident was described to a teacher at another school. She didn't seem surprised. She said that when she made visits to her new students' homes during the summer, she often found the home circumstances lacked both cleanliness and family support for the student. Thus, although some students in simulations are encouraged to develop problem solving skills, others are denied these opportunities. Moreover, it is precisely the students who already face the greater family handicaps who are excluded, as Oakes (1985) and others have reported.

It is not only a question of who is and is not encouraged to take initiative. Teachers were unsure about how to encourage initiative and other work habits in students. One confessed that she could teach technical skills, but did not know how to instill self-reliance on the job. Another teacher pointed out that work habits are not directly taught. They are "woven into the course, for example, as part of office simulation exercises." But even she admitted that she didn't require all students to be managers. A third teacher stated that
development of these skills was up to the parents, concluding that "Little can be done for them here (as juniors and seniors) if parents don't teach these skills." And still another believed that skills for work were

   to (be mature and do) a good job through 2-way communications and interactions with others.

In short, student outcomes depended on the students, but also on the way classroom interactions were structured.

The least satisfied were CO-OP students - at least some clearly voiced their dissatisfaction. Two or three of the more outspoken ones said that they (and most of their classmates) saw the vocational school as worse than other schools, because the CO-OP teacher told them what to do and disciplined them unfairly if they disobeyed. For example, one student wanted to quit a particularly disliked CO-OP job that she said the teacher required her to accept. But she stated that quitting meant a one letter grade drop from her teacher, regardless of the reason for a quit. Her teacher's view was that she had "problems adjusting," meaning that she was not likely to do well at work, at least in a clerical job.

Valli (1986) reported that CO-OP students did not challenge the school system. In the present study, however, students in the clerical services courses were more like those in the CO-OP courses in comprehensive schools. On the other hand, Valli noted that CO-OP students attributed their dissatisfaction specifically to a particular teacher rather than to the course or school (or to themselves and their
prior experiences). Indeed, in the present study, some students complained that the teacher, not the course, "didn't teach them anything new."

Even though some CO-OP students were dissatisfied with their circumstances of employment and with the work organization in general, they blamed the teacher or supervisor, not the structures of education and work. For example, one of the students (who clearly was one of the highest academic achievers in this study) asked her employer about learning a new task and was told it was a "waste of effort," since the student was leaving at the end of the school year. Another student stated that the teacher "got crummy jobs for them," meaning that the work was not really clerical and that they did not get to learn new things. When asked why she and others chose the CO-OP course, she said that only after enrolling and starting the required job did she become aware of the problems, and that once she did, she wished she had stayed in the secretarial course. 28

When teachers were questioned more closely about the usefulness of students' technical skills compared to what they might acquire at the home school, a teacher in the computerized accounting course noted that opportunities to acquire technical skills were comparable: most home schools taught similar topics, and used most of the same types of equipment. One high skills/steno teacher admitted that

At least five of the eleven schools we serve have an equivalent executive secretarial course - about the same size and with similar equipment . . . They also have a CO-OP course option.

But, she also added that a major advantage was that the vocational
school offered shorthand classes, which several teachers reported were unavailable at many home schools. When asked how important shorthand skills currently were to employers, some teachers admitted they didn't know (especially those who had not taught elsewhere and the junior class teachers). Others acknowledged that the skills were relatively unimportant on many jobs. A steno teacher at another school stated that "Legal jobs require shorthand more frequently, but (it is used) as a check on spelling, punctuation and related information." Yet, students who had participated in the more intensive forms of work preparation (such as shorthand) were rated by teachers as better job candidates, even though the technical skills themselves were not used.

**Discussion**

Although the formal agenda of the vocational schools and business courses is to provide students with entry-level technical skills, it became evident that many activities in the business courses were stressing skills other than those associated with technical expertise. In fact, acquisition of technical expertise, although it seemed to take up much of the formal curriculum and related activities, tended to be eclipsed by more subtle processes of socialization. The contributions from informal socialization experiences were perhaps even more likely than technical skills to determine what happened in the early stages of employment.

Students likely to participate in small group instruction and social conversations with teachers were in the secretarial and accounting courses. These students seemed to be most satisfied with technical skills they had acquired and with the course in general.
Some disliked the routine of school and often the "busywork," but in general they believed that they were learning skills that could help them get and keep a job. Unlike many of their friends at the home school, they saw themselves as getting practical knowledge and work experience: "They (their friends at the home school) just sit around all day and do nothing and they're not even ready to get a job." Clearly, these students had learned that normative conformity, and sometimes pragmatic skills, was most likely to provide them with more favorable school outcomes and chances for employment.

Students least extensively involved in ongoing group activities were also most indifferent about their school experience. The clerical services students preferred their school because their day went faster; a few because they could get individual attention from their teachers; one or two were there because their parents stressed getting a diploma and basic technical skills. However, many of these students seemed to be marking time until graduation. Some missed school to care for their babies, not withstanding teachers' warnings that absences would hurt their chances for getting a better job. They abused the absenteeism rules to the point where they would be expelled. If they worked hard in this course and expressed agreement with the goals of the school, their records would show "improved effort" and "good work habits," or "trying hard." If they did not express agreement with these goals, they would be cited with "poor skills in customer relations," "low initiative," or needing to "ask more questions." They either learned pragmatic behavior or coercive conformity, but only to the extent that it was essential in the short run.
CO-OP students showed the most initiative in learning "rules about rules." "Successful" (mature) students had an image of conforming to norms and rules. Most learned the pragmatic approaches but many struggled with conformity in ways that sometimes were different than those observed from other students. CO-OP students who mentioned problems at work said they would not notify the CO-OP teacher about them. When asked why, most stated that the teacher would "do nothing" to jeopardize a training station with the employer, and that they would be blamed for not doing well. Although not all were this disenfranchised, many students admitted that what they liked best about the CO-OP course was that "I get out of school early" - to have lunch, to go to the tanning booth, or to make money. A few even preferred the non-clerical jobs they had held prior to that school year; one student wished she had stayed at the school full time until graduation.

NONTECHNICAL SKILLS AND WORK: THE VIEWS OF STUDENTS

The experiences of the 24 young women described above depict three important forms of socialization found within business vocational high school courses preparing students for employment. The discussion in this section focuses on the types of nontechnical work skills that these students have acquired. It is based on students' self-reported skills; on information obtained from school records, teachers and supervisors; and on the patterns observed in students' reports of their responses to a frustrating situation at work.

Descriptive Data of Students

Table 5.1 presents a summary of the jobs, nontechnical skills for
work and sources of these skills for all students in the study. As Column 1 shows, most students held a "clerk" type of job -- in private offices, retail stores, and public organizations. Column 2 indicates that seven of the ten clerking jobs are in large organizations (with at least 100 employees). Column 3 shows that ten of the 24 students held a CO-OP clerical job.

In addition to responding to questions about job-related and personal information, student interviewees were shown a list of 20 nontechnical skills. The list was derived from skills described in case studies and other research (e.g., Edwards 1979; Oakes 1985; McPartland et al. 1986; Valli 1986). Students were asked to select the skills that described "special strengths or skills that make you a good employee." They were also asked to add others not on the list that they would like an employer to know they possess (see the Student Questionnaire in the Appendix).

Column 4 summarizes the less commonly mentioned "special skills" for each student (nearly all mentioned skills such as "on time to work" and "selects the proper clothing for work"). Comparing data from columns 3 and 4, there are some differences according to whether or not the job was part of a formal work-study course. CO-OP students were more likely to state that they analyze work problems and negotiate with others (bosses, clients, and customers). Other students usually mentioned that they could "get along with everyone," were "willing to help," and "persisted to get a job done."
Table 5.1. Types and Sources of Nontechnical Skills for Work Organizations: The Views of Young Women.

<table>
<thead>
<tr>
<th>Student Job</th>
<th>Size of Job?</th>
<th>&quot;Special Skills&quot;</th>
<th>Sources of Skills</th>
<th>Frustrating Work Situation</th>
<th>Strategy to Resolve</th>
</tr>
</thead>
<tbody>
<tr>
<td>library technician</td>
<td>L</td>
<td>analyze problems, particular about finished product</td>
<td>4-H advisor, father</td>
<td>limited tasks, won't train for new tasks</td>
<td>say ok, but do it your way</td>
</tr>
<tr>
<td>payroll clerk</td>
<td>L</td>
<td>negotiate with supervisor</td>
<td>CO-OP teacher, home school teacher</td>
<td>lacked all information re: job tasks</td>
<td>negotiate, but don't argue</td>
</tr>
<tr>
<td>bank teller</td>
<td>S</td>
<td>negotiate with customers, analyse problems</td>
<td>jr. vocational teacher</td>
<td>customer demands improper</td>
<td>follow own policies</td>
</tr>
<tr>
<td>receptionist/clerk</td>
<td>S</td>
<td>avoid coworker problems</td>
<td>mom</td>
<td>task uncertainty (too many tasks)</td>
<td>ask another manager</td>
</tr>
<tr>
<td>typist</td>
<td>L</td>
<td>communicate with supervisor</td>
<td>jr. vocational teacher, job supervisor</td>
<td>lacked technical skills (software)</td>
<td>try to get on good side of manager</td>
</tr>
<tr>
<td>typist</td>
<td>L</td>
<td>flexible</td>
<td>mom</td>
<td>repetitive tasks</td>
<td>don't cuss manager out</td>
</tr>
<tr>
<td>file clerk</td>
<td>L</td>
<td>have fun</td>
<td>parents</td>
<td>lacked technical skills (hardware)</td>
<td>have positive attitude</td>
</tr>
</tbody>
</table>
Table 5.1, continued

<table>
<thead>
<tr>
<th></th>
<th>S</th>
<th>Y</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>receptionist</td>
<td></td>
<td></td>
<td>negotiate with others, group problem solve</td>
<td>jr. and sr. vocational teachers</td>
<td>lacked technical skills (hardware)</td>
<td>negotiate with supervisor</td>
<td></td>
</tr>
<tr>
<td>file clerk</td>
<td>L</td>
<td>Y</td>
<td>confidentiality</td>
<td>sr. vocational teacher</td>
<td>lacked technical skills (software)</td>
<td>negotiate with supervisor</td>
<td></td>
</tr>
<tr>
<td>accounting clerk</td>
<td>L</td>
<td>Y</td>
<td>analyze problems on own</td>
<td>sr. vocational teacher</td>
<td>task uncertainty (too many tasks)</td>
<td>ask what's needed</td>
<td></td>
</tr>
<tr>
<td>file clerk</td>
<td>L</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>know boss' expectations</td>
</tr>
<tr>
<td>retail clerk</td>
<td>L</td>
<td>N</td>
<td>too dependable</td>
<td>parents</td>
<td></td>
<td></td>
<td>follow company procedure to report manager</td>
</tr>
<tr>
<td>retail clerk</td>
<td>S</td>
<td>N</td>
<td>get along with everyone</td>
<td>parents, friends</td>
<td>wrong information about price</td>
<td>do what am told</td>
<td></td>
</tr>
<tr>
<td>retail clerk</td>
<td>L</td>
<td>N</td>
<td>persist, make &quot;managerial&quot; decisions</td>
<td>4th/9th grade teachers, Sunday School teacher</td>
<td>lacked technical skills (software hardware)</td>
<td>use manual to check company procedures</td>
<td></td>
</tr>
<tr>
<td>nurse aide</td>
<td>L</td>
<td>N</td>
<td>willing to help, outgoing</td>
<td>sr. vocational teacher</td>
<td>task uncertainty (too many tasks)</td>
<td>make job suggestions</td>
<td></td>
</tr>
<tr>
<td>typesetter</td>
<td>S</td>
<td>N</td>
<td>handle boss by handling customers</td>
<td>counselor, jr. voc. teacher</td>
<td>lacked technical skills (hardware)</td>
<td>work between managers</td>
<td></td>
</tr>
</tbody>
</table>
### Table 5.1, continued

<table>
<thead>
<tr>
<th>Role</th>
<th>Size</th>
<th>N</th>
<th>Task Persistence</th>
<th>Junior and Senior Voc. Teachers</th>
<th>Customer Complaints</th>
<th>Communicate with Supervisor/Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Clerk</td>
<td>S</td>
<td>N</td>
<td>Persist at tasks</td>
<td>JR. and SR. VOC. TEACHERS</td>
<td>CUSTOMER COMPLAINTS</td>
<td>COMMUNICATE WITH SUPERVISOR ON OWN</td>
</tr>
<tr>
<td>Waitress</td>
<td>S</td>
<td>N</td>
<td></td>
<td>MOM</td>
<td>TASK UNCERTAINTY</td>
<td>HANDLE SUPERVISOR ON OWN</td>
</tr>
<tr>
<td>Waitress</td>
<td>S</td>
<td>N</td>
<td>Follow company policies</td>
<td>PARENTS, FRIENDS</td>
<td>TASK UNCERTAINTY</td>
<td>GO TO MANAGER WITH PROBLEMS</td>
</tr>
<tr>
<td>Waitress</td>
<td>S</td>
<td>N</td>
<td></td>
<td>GRANDMOTHER, JR. VOCATIONAL TEACHER</td>
<td>TASK UNCERTAINTY</td>
<td>DO WHAT TOLD, BE TACTFUL</td>
</tr>
<tr>
<td>Waitress</td>
<td>S</td>
<td>N</td>
<td></td>
<td>PARENTS</td>
<td>CUSTOMER COMPLAINTS</td>
<td>DO WHAT TOLD</td>
</tr>
<tr>
<td>Waitress</td>
<td>S</td>
<td>N</td>
<td>Communicate with supervisor</td>
<td>JOB SUPERVISOR</td>
<td>MENIAL TASKS, NO CO-WORKER HELP</td>
<td>STAYED CALM</td>
</tr>
<tr>
<td>Waitress</td>
<td>S</td>
<td>N</td>
<td>Hard worker</td>
<td>PARENTS, FRIEND</td>
<td>TASK UNCERTAINTY</td>
<td>ASK FIRST WHAT'S NEEDED</td>
</tr>
<tr>
<td>Waitress</td>
<td>S</td>
<td>N</td>
<td></td>
<td>FRIENDS, PARENTS</td>
<td>CUSTOMER COMPLAINTS</td>
<td>STAY OUT OF TROUBLE, DON'T SEEK FAVORTISM</td>
</tr>
</tbody>
</table>

**NOTES:** "Size" refers to employment establishment size, where "L" (large) is more than 100 employees, and "S" (small) is 100 or fewer (see text). A blank line indicates no pertinent information was given.
Students were also asked to list the people who had been most instrumental in helping them develop these skills, and in what ways the person(s) had contributed support:

What people do you think helped you the most to develop the "special skills" you just mentioned? Examples could be a friend or relative, a teacher or counselor, a coach or activities leader, a co-worker or supervisor at work.

This information is summarized in Column 5. Six of the ten CO-OP students reported that a teacher had been most influential; other students cited grandparents or parents and friends more often. It is particularly interesting that students who nominated teachers also nearly unanimously believed that they could analyze problems and negotiate with others at work (displays of normative conformity). On the other hand, those who cited family and peers as most influential were likely to mention only skills traditionally associated with pragmatic or even coercive conformity, such as "dependable" and "on time to work." The implications of this finding are discussed below.

The skills student report and those they actually use to cope with a problem at work could be quite different. Therefore, each student was asked to describe a frustrating situation at work, exactly what actions they took, and why they responded the way they did. This approach was modified slightly from the method used by Mainiero (1986) in a study of gender differences in strategies for managing work situations in bureaucracies. Notes were taken during the conversations, but responses were also tape recorded to permit a more
normal conversational mode. The question was presented as follows:

I would like for you to recall a frustrating situation that you had on your current or most recent job. Frustrating situations can be caused by not having the right kind of equipment or supplies, because you lacked some information that you didn’t get, or because you haven’t learned to do a certain task. Usually frustrating situations are related to being dependent on a manager or boss, a supervisor, or a co-worker. What I am interested in is what happened in the frustrating situation and how you responded (Mainiero 1986, p. 652).

It is instructive to consider specific ways that nontechnical work skills seem to be linked to social relations and their resources. The following discussion is composed of brief case analyses for three students. Each student was chosen because she seems to be representative of one of the three forms of schooling outcomes associated with rules and coping: normative conformity, pragmatic behavior and coercive conformity. However, the women were also chosen because they are similar in other ways that could confound the outcomes (family size, status, and intactness; time in current job; and degree of isolation on job).

**Case Analysis: Debra**

A senior in the executive secretarial course, Debra is a "C+" student. From review of the data from her interview and school records, it was evident that she represents a student who typifies in many ways how normative conformity can translate into skills that help workers manage workplace events.

Debra holds a formal work-study (early placement) job as a receptionist in a physician’s office. She has worked there about one month, and has held one previous job for pay (waitress). Her school
records described her as having "good ability and attitude," and she was nominated "Student of the Month" at the vocational school two months earlier. She stated that she has been involved in six school and community extracurricular groups during high school, and has been an officer in two of these. Her business teacher rated her as being more assertive, better organized and wanting to do better than 95% of the students she has taught in the secretarial course. On a state-administered test, her skills in communication and vocabulary were ranked highest, and technical skills (e.g., dictation) lowest. She is in her second year of business courses at the vocational school. The following is a summary of her frustrating situation and how she handled it.

The first week on my job a computer specialist/trainer came in and gave me hands-on training. However, she trains people so she travels to other businesses and when I had trouble she wasn't there . . . I didn't take in all the (technical) skills she taught me at once. This situation happened on my second week on the job and I was on my own -- I usually work from 4 to 8 p.m.

I entered the wrong information (entered charges wrong) and didn't know how to get it back out. . . I called the trainer at home and explained what had happened. She took me through most of the procedure step by step over the phone . . . The next day I had to talk to my supervisor. The doctor who hired me gives me my responsibilities but my supervisor is a nurse. (After this happened) she said the she thought my school training was enough, that I knew what to do . . . Now the specialist visits regularly (I also called her again two nights ago) . . . Calling the specialist was the most important thing I did to solve the problem. I could have called the billing clerk (a co-worker), but I didn't know she knew (how to help me) . . . I help out (in the office) where needed . . . (and) I usually can negotiate problems with her (the nurse/supervisor), so things worked out okay.

Debra seemed to do well when confronted with a problem at work not because of her technical skills (even teachers ranked her technical
skills as lower than other skills) but because she had a basic understanding of how to manage uncertainty in workplace events. When asked earlier in the interview who had been most important in helping her develop special coping skills, Debra had nominated her junior and senior teachers. She says that they not only "pushed me to work hard and get training," but also helped her develop personally and in class to "group problem solve" and "negotiate with others."

**Case Analysis: Mary**

Mary is a "C/D" student. Her experience demonstrates the application of a form of pragmatic behavior that was often observed of students whose educational experiences depended heavily on equipment-related exercises and peer counsel. Although her grades are lower on average than those of Debra, they are no lower than several other students who were interviewed. Mary has participated only in the vocational education club; her hobbies are doll collecting, swimming and bowling. This is her second year at the vocational school. Mary's case is included as an example of a student for whom learning pragmatic behavior and coercive conformity probably best served to keep her at school by not allowing her to skip school or drop out, but had little impact for teaching her how to manage workplace uncertainty.

Mary is in the Clerical Services course, which is a lower level course (some schools consider it as a "disadvantaged" course, meaning students have academic and social problems). In her school records, junior teacher comments were that Mary had problems in developing "initiative, perseverance, reliability and speed in work (manual)," although she "followed directions well" and "was careful with tools and
equipment." Her senior teacher rates her as being more assertive than only 30% of students she has taught in the accounting course, better organized than only 10%, and wanting to do better than only 20%.

Mary had a job (non-work-study) in the "filing department" of a large (local) insurance company for about the same length of time as Debra (one month). Other jobs for pay have been babysitting and serving at school banquets. Like Debra, she also works in the late afternoon and evening, and often is the only person in her immediate work area, although her supervisor is in the building at times. The following summarizes her situation and response.

It was my first week on the job. I was working with the microfilming camera and it (the paper) jammed. It has jammed two or three times before, when the supervisor was using it. I was by myself (when it jammed) . . . . I shut off the machine (it buzzes when jammed) and went to get the supervisor and she helped me fix it. She had explained how to fix it before but went through it quickly -- I think they have increased (the time spent) training on it now . . . . I could have pulled the camera out, I guess, but I did what I was told to do.

Mary, unlike Debra, didn't try to solve the problem on her own, possibly because she had little experience along these lines. Mary's "special skills" were obtained from "two friends at this school" and her aunt. She said that they taught her how to "dress for a job," "what to expect on the job," and "what to do if I fail." She believed that she was good at "communicating with her supervisor." Yet, it was obvious that communication between the two was minimal, and that Mary did not understand this.
Case Analysis: Sheri

From the first attempt to interview Sheri to the follow-up visits, Sheri seemed to be "different" than many other students. Even her teacher mentioned this several times, twice in the form of a subtle warning. Sheri skipped school the entire week of the study (unrelated to the study). She was at school the first follow-up visit, but had not brought in a signed parental consent form, nor did she do so at the second visit. However, it was clear that she was quite willing to be interviewed -- she offered to dispense with a consent form, and talked briefly to me while her teacher was busy elsewhere. Her interview finally was held during the last visit to the school. To accomplish this, the secretary had to call her mother to obtain consent. The results were a worthwhile contribution to this study, however, for they helped to confirm classroom observations and others' statements about how some students respond to coercive conformity in a classroom, and what the results can be for managing workplace uncertainty.

Sheri's records showed that she was a "C/C-" CO-OP student who had a history of frequent absences throughout high school. Her records indicated that she had fewer problems in attendance at the vocational school, but often was unprepared for class and was rated by her teacher as low in motivation. Yet, her self-ratings showed that she believed that she persevered, was reliable and showed initiative. Indeed, Shari did persevere and show initiative -- but not in ways acceptable to much of school life. For example, she had switched vocational courses several times, moving from data processing to accounting to the CO-OP
course. She disliked the CO-OP teacher and course, however, flatly stating that office jobs were boring and paid only "five dollars in an office compared to nine or ten dollars and better benefits in a shop." She refused to take an officer position in the vocational club OEA, for which she had been nominated. In short, Sheri seemed neither to have adopted the pragmatic approach of students like Debra, nor the submissive, conforming pose of Mary. She had learned to handle conformity at school (and apparently at work), however -- and used her own strategies to maneuver into different situations, although the results were marginally successful.

For example, she strategically wrote a note to her vocational teacher, asking to be transferred from his course into the CO-OP course. Entry into the CO-OP course usually required a "C" in a previous vocational course (she had earned a "D" in his course). The note showed that she knew his approval of the transfer was important. It read:

"I've worked and done my best this year, and because of it, I've learned more than I ever have before. Thanks!"

Also, her records indicated that she told a data processing teacher she wanted to switch courses because "I will be trained for the rapidly expanding business world (of data processing)." When she wanted to move from data processing to accounting she wrote that "I feel this (course of study) will be challenging and rewarding."

Sheri had transferred to the vocational school because she said her school was bad -- "drugs and fights all the time." Her current CO-OP job was as a typist in the shipping department of a local
manufacturing company. She thought she was particularly adept at being "flexible" at work, which to her meant "following the company's policies and procedures but still getting my work done." When questioned further about this skill, she noted that she worked in a small office where "everyone gets on others' nerves," and "you have to communicate with the co-workers and get work done on time, otherwise everyone stays over." Clearly, she had little affiliation with either school or work, in part because she distrusted social relations in both.

The frustrating situation she described concerned an older woman in the office, whom she (and apparently others) referred to rather disparagingly as "Aunt Agatha, who 'professes' to (be able to) type." One particular day "Agatha" got behind in her work -- actually, according to Sheri, Agatha didn't even get any work done. Worse, when the office supervisor came in, Agatha blamed Sheri for not getting it done. Sheri said that

I couldn't say anything because I was the student there, and therefore the scapegoat . . . Half of my grade for the CO-OP course comes from the employer, and I need the grade to graduate. You can't say anything bad, because you lose your job. Talking about them gets back to you . . . I have learned to bite my tongue in these CO-OP jobs, and I resent even going to work. There is really no constructive way I could have resolved the problem other than to quit, but if I do that before graduation she (the CO-OP teacher) will drop my grade one letter.

The best strategy I took to deal with the situation was not to cuss out the manager -- she was frustrated that the work wasn't done . . . But, I will say this: if you talk to other students, ask them, "Are you learning anything new (in class) -- does your teacher teach you anything (that will help you get along at work)?

Sheri seemed to believe that conformity was of little value, and
that those in authority don't care anyway. Her mother had been most important in helping her develop her "special skills" by "telling me not to give up, that I am good enough -- even if I don't think so," and to be dependable, persistent and to have a positive attitude. She also mentioned her fiancée of four years who "wants me to get a better job," and her junior accounting teacher who "taught me how to finish a project by a combination of push and support."

Nontechnical Skills and Work: The Employer's Perspective

It is instructive to ascertain the extent to which employers encourage and reward displays of nontechnical skills. Therefore, information was also obtained from employers who completed questionnaires, and from a few of those who volunteered to be interviewed over the telephone.

Just over half of all employers who provide work-study job stations for the business courses studied were surveyed by mail. Nearly seventy-three percent responded (N = 37). This section begins with an overview of the firms (or establishments) and respondents. The following sections present information about the skills important for acquiring and successful job performance in entry-level clerical jobs.

Descriptions of Employers

The average establishment size of employers in this study is approximately 70 employees (average firm size was about 125 employees). Establishments are located in the industries of manufacturing (N = 11), professional and related services (N = 13), business and repair services (N = 6), wholesale and retail trade (N = 6), and
transportation \((N - 1)\). They employ an average of 32.5 full time and 2.7 part time clerical workers. The size of their workforce had changed an average of less than 25% during the last five years, suggesting that this is a relatively stable sample of work organizations. All employers are located in Ohio.

Job titles of employer respondents in the sample vary from school superintendent and general or personnel manager to legal secretary. Forty-one percent are female. Their average level of education is slightly less than four years of college, although three respondents held a doctorate or professional degree. Their mean job tenure was 9.2 years. They have supervised an average of 8.7 students.

Respondents were also asked to answer most questions based on their response to the following question: From which entry-level job is someone in your firm most likely to be promoted? (Consider as entry-level those jobs that are at least 50% filled by new hires from outside the firm.)

About one-half of the entry-level clerical jobs of employers in this study are secretary, nonexecutive \((N=9)\), file clerk \((N=9)\) and other \((e.g., "teller" or "untitled") \((N=8)\). Because of the relatively few number of jobs in any category, reported skills are discussed first for all jobs collectively; any differences by job type are also noted.

**Skills for Job Acquisition**

Employers were asked to rank eleven sources of information that can be used to choose an applicant for the selected clerical job (they also could rank other sources). Sources included grades, attendance, test results, and references from teachers and previous employers. The
scale ranged from "always" to "never." They "always" or "often" used:
work references from a previous employer (80%), references about
interpersonal skills from previous employer (73.5%), grades (70%), and
work references from high school teachers (67.5%). Equally important,
they were least likely to rely on typing and other administered tests
(e.g., shorthand or math skills, aptitude tests) and on references
about interpersonal skills from teachers. Several volunteered that
they consider the personal presentation of the interviewee, which
usually meant not only appearance and dress but also how well they
demonstrated a measure of social "confidence." One respondent, a
personnel director at the company for 23 years, expressed this approach
more candidly.

We have several people involved with interviews and we trust our
gut feelings (about whom to hire).

One reason why nontechnical skills are sought seems to be that
many employers are uncertain about how well prepared students and new
graduates are for these jobs. Many stated that "only some" of those
hired are well prepared, although most noted that students from
vocational schools were better prepared than other students. Moreover,
interpersonal relations for these jobs reportedly take somewhat longer
to learn than do routine technical job tasks, such as filing.

Employers were also asked to list the "readiness" behaviors that
they "like to see in applicants for the selected clerical job" (this
category was suggested by a personnel manager in a pretest). Sixty-
eight percent (N = 25) completed this category, with an average of 2.4
types of behavior listed per employer. Of the four most frequently
cited behaviors, the top two behaviors describe nontechnical skills,
technical expertise is third, and coping skills are last: has a
professional or neat personal appearance (29%); displays the proper
demeanor (e.g., "outgoing yet business-minded," "enthusiastic,"
"personable," "has a positive attitude") (19%); shows an interest in or
knowledge of the job (e.g., "asks pertinent questions," "has the
appropriate skill level") (16%); and suggests confidence and self-
awareness (e.g., "has established and worked toward goals," "know where
they're going") (15%).

By job, the most distinctive difference seems to be that
nontechnical skills are likely to be essential to get a clerk types of
job (e.g., in filing and accounting), and the emphasis for these jobs
is on "demeanor," especially positive attitude. But, it does not seem
to be the case, at least for these jobs and employers, that grades get
applicants "in the door." Neither are technical skills sufficient by
themselves to get nearly any of these jobs.

Skills for Job Success

For the entry-level clerical job selected, employers were asked to
select from a list of 22 skills all that "are MOST IMPORTANT for
successful job performance." (They also could add unlisted skills.) The
most frequently mentioned skills could be grouped by behaviors
consistent with levels of bureaucratic control rewarded by the firm
(Edwards 1979). The first level is "explicit rules" that any worker
must learn and that are stressed most heavily in lowest level jobs (pp.
149-151). However, the only example of explicit rules consistently
reported by employers is must be "on time to work" (81%).

In Edwards typology, the second level of bureaucratic control encourages dependability, which "implies performing tasks in a reliable, predictable, and dependable manner" consistent with middle level jobs (p. 150-151). He notes that a higher level of pay goes to the worker who requires little special assistance and who can carry on work in situations where rules are not likely to apply directly. 33

Employers in the present study mentioned most frequently the following skills associated with predictability and dependability: "Has a positive attitude" (84%), "Maintains confidentiality of the firm" (81%), "Knows how to get things done" (68%), "Communicates with supervisor" (65%), "Particular about a finished product" (65%), "Maintains poise under pressure" (57%), and "Sees and analyzes work problems" (46%). Although "analyzing work problems" could suggest self-direction, given that the question was limited to entry-level clerical jobs, it is unlikely that these jobs are located in upper levels of a company.

However, a slightly different pattern emerged when employers were asked to identify the FIRST "Most Important skill for successful job performance" (from the list of 22 skills and any they added). "Has a positive attitude" was selected as of greatest importance by 19% of employers, and 16% were interested in whether the clerical worker "Knows how to get things done." Nine percent each rated "Maintains confidentiality" and "Particular about finished product" as essential. 34 Indeed, 34% of employers in this study of clerical workers state that the most important skills for successful job performance call for
display of "habits of predictability and dependability" consistent with workers in middle level jobs, rather than "explicit rules."

Yet, it is unlikely that the jobs in this study are located even in the middle levels of companies, so that some additional insights can help with interpretation of these findings. Six employers volunteered to be interviewed by telephone, and another four provided written comments about their experiences in hiring and promoting clerical employees. Their statements reaffirm the value of maturity in younger clerical employees, and the types of skills that demonstrate it.

Some of our (student employees) have been immature in the sense that they're not ready for the "real world," where profit and loss may depend on their input toward the company's goals. A lazy attitude resulting in incomplete or inaccurate work ... tells me many handle work projects assigned to them much like a homework assignment might be handled on the evening of a special "date" or social activity.

Another revealed that a good indicator of maturity (and how an applicant will perform) is whether they have their own goals or bring "high school life" into the firm. They need to choose whether they will be willing to stick to a work schedule or (show that they are) too flexible, for example, in taking lunch breaks. Students should take their jobs more seriously and how it is a stepping stone.

Teachers and parents need to tell them that this a business and (work opportunities are) not owed to them (by living) in America. Teachers need to provide "positive stroking" as well as information on how to get goals and put work into keeping them. As a mother, I don't think any school really is focusing on (teaching) the significance of (setting and working toward) a goal.
SUMMARY AND DISCUSSION

The objective of this chapter is to determine whether certain social relations between teachers and students in vocational schools as value communities contribute to the development of non-technical skills for the workplace. A related question is whether all women obtain similar benefits from social relations with teachers and other school staff. Several findings emerge from the observations and interviews.

First, students attend vocational schools not only to acquire entry-level technical skills. They also select these schools because they believe that they can trust the school, and especially their teachers, to provide an environment on which they can depend. Indeed, students leveled the most scathing criticisms about their teachers and courses when they thought that they were not receiving what they had expected, such as learning new skills or a CO-OP job related to their training.

Second, teachers show greater interest that students demonstrate "maturity" more than they do technical abilities. They are particularly likely to reward students who display this behavior by giving them support to cope with personal or academic problems and helping them get better jobs. "Maturity" translates largely into displays of normative conformity -- or, how well students have learned the rules and the "rules about rules." Normative conformity seems most likely to be acquired and reinforced in small groups, however.
Third, students who manage frustrating situations at work by relying on nontechnical skills are more likely to receive favorable feedback on the job (and probably higher course grades) from their employers than are those who demonstrate only technical skills.

Fourth, employers surveyed consider nontechnical skills more important than technical expertise in making hiring decisions for entry-level clerical jobs. They also rank nontechnical skills as more important for successful job performance over technical expertise.

Fifth, shorthand is taught not because it is relevant on the job, but because it requires students to demonstrate a minimum level of conformity and maturity - both to enter the course teaching it and to stay in that course. Employers are more likely to trust applicants with shorthand skills not because shorthand skills are required on the job, but because it suggests that basic nontechnical work skills and grammar are likely to have been acquired.

Discussion

The hypotheses are at least partially supported. Many of the work-related benefits from participating in formal group learning or personal interactions with teachers are nontechnical in nature. Yet, although all students participated in some group learning activities at school, not all participated for similar time periods or experienced the same levels of interpersonal interactions.

Students identified as the better students were likely to be in the CO-OP course. Yet, perhaps because they were "on the job," their formal schooling was primarily practice for technical skills. Even
more problematic, "disadvantaged" students were in the clerical services course, where there were fewer opportunities or interest for teachers and students to interact in ways conducive to self-reliance -- but numerous chances to repeat "learned helplessness" types of interactions. On the other hand, students in the secretarial and accounting courses experienced varying types and levels of opportunities to interact, depending on instructional and interpersonal practices of the teacher and involvement by the student.

Irrespective of the course, students who displayed the appropriate nontechnical skills showing a fundamental understanding of and agreement with the goals and school rules benefited. They were more likely than their peers to be given chances to participate in activities conducive to "building an arsenal of experiences and information" to cope with workplace uncertainty. They were also more likely to be hired and to be rated as successful at work. Consistent with other research results (e.g., Oakes 1985), conformity to the organization's goals and rules had to be demonstrated first. Those who did not understand this or disregarded it as unimportant were unlikely to be perceived as a serious member of either the school or work organization, and unlikely to obtain support and information when needed. Indeed, chances to participate in activities associated with a measure of independence depended largely on the extent to which conformity was observable by those in authority -- teachers and employers.
Bidwell (1988, p. 118) observes that "years of education completed" encompasses many kinds of educational attainment, such as "increase of knowledge, change of values or other moral commitments, gains in reasoning powers, and diplomas earned." Yet, investigations of the relationship between education and occupational outcomes typically have been limited to the effects of years of education (or test scores) and a few socioeconomic variables, without regard to what happens in school. Furthermore, large-scale studies of schools too often have been content with superficial measures of school properties; critical institutional and organizational features of schools as places of learning have not been incorporated in survey questions.

Many of the studies that do focus on "years of education" take a developmental perspective, namely that the primary contribution of schooling is to motivate youths for post-school life. However, this preoccupation with motives obscures contributions from components of the educational system, such as classrooms, schools, school districts, territorial communities within a state, and state systems. Increasingly, it is becoming clear that the linkages between education and occupational attainment are socially organized (Bidwell 1988). Therefore, research programs are needed that incorporate measures of organizational and institutional mechanisms of both school
and work in assessment of the education-occupation connection.

This study was undertaken to provide answers to two questions: (1) What does socialization during high school contribute to job success through the acquisition of nontechnical skills for work? And, (2) Do these skills help minorities overcome some of their economic disadvantages? It is known that academic and vocational experiences alone are not sufficient to provide favorable economic outcomes for all groups. For example, technical skills have different effects for different status groups and in different labor markets. Although the transition from school to work has been studied extensively for over two decades, it remains unclear what the relationship is between the education system and socioeconomic outcomes.

A distinction was made between "human capital" and "social capital" resources. Human capital refers to investments individuals make in education and training to enhance their economic status. In empirical studies, it is usually measured as years of education and work experience. Social capital, on the other hand, represents resources obtained from social relations, particularly information and the capacity to apply it effectively, sophistication about norms and sanctions, and obligations and expectations, all of which depend on a trustworthy social environment. Specifically, the basic ideas of the present study are that (1) social capital resources are obtained in school in the course of social relations with concerned adults that help students acquire nontechnical skills for work, and (2) these skills help students obtain a higher measure of success on the job than otherwise might be possible. A set of "social relations" hypotheses
was specified, postulating that prospective workers who have limited formal advantages can learn in school to cope with complicated work environments with competing explicit and implicit rules.

The research strategy pursued two empirical approaches: (1) quantitative analyses of national longitudinal data from the High School and Beyond (HS&B) dataset and supplemental data from responses of teachers, and (2) field studies of the contributions from school social relations to the development of nontechnical skills associated with success at work. Quantitative analysis permitted tests of hypotheses using representative data. Field studies contributed salient information about social relations between students preparing for employment and their teachers, and between the nontechnical skills acquired in school and those needed in the workplace.

RESULTS FROM QUANTITATIVE APPROACH

Four sets of hypotheses were tested. The first hypothesis is that measures of school background directly influence wages. The second hypothesis is that early employment experiences directly influence on wages, and the third is that school background directly affects employment experiences -- that is, the effects of school background on wages are indirect. The fourth hypothesis predicts that the relationship between school background and wages are invariant for women and men, blacks and whites. The findings from tests of these hypotheses using quantitative methods are summarized below.
Hypothesis 1: School Background Directly Affects Wages
Hypothesis 4: There are No Differences by Gender and Race from the (Direct) Effects of School Background

There are observable gender differences in the cumulative and individual effects of school background measures. Noncollege females obtain a wage advantage from informal forms of school socialization, while males benefit primarily from higher course grades and number of trades courses. For women, important socialization experiences are (a) attending schools where teachers spend more time in ancillary activities (such as contacting employers and counseling students), (b) attending schools where teachers stress social skills while de-emphasizing academics, and (c) more frequent small group instruction. They also receive a wage advantage from class time in instruction/skills practice and from business vocational education.

Second, there also are race differences found. Noncollege blacks benefit both from specific, measurable experiences in schools such as enrollment in the business vocational and academic tracks, in CO-OP/work study programs, and from attending a school preparing students for college. For whites, family and personal characteristics are relatively more important than is school background.

Hypothesis 1 was supported, with qualifications. School background measures do contribute to higher wages in the early period after high school. The findings of greatest interest are that informal social relations with teachers are especially beneficial for noncollege women. Some differences are observed also for blacks and whites. However, the direct effects argument of hypothesis 4 must be rejected.
Hypothesis 2: Early Employment Experiences Directly Affect Wages
Hypothesis 3: School Background Directly Affects Employment Experiences.
Hypothesis 4: There are No Differences by Gender and Race in the (Indirect) Effects from School Background

The most important predictors of wages of the early employment experience variables are months unemployed and core industry job. For noncollege women, being unemployed fewer months contributes to a wage advantage. Some forms of employer training are also linked to higher wages. However, although males benefit from a core job, informal on-the-job training is detrimental. A job with higher prestige leads to higher wages for blacks, although a first job in the clerical occupations does not. The wages of whites are higher in a core industry job, but a job where the employer pays for tuition is associated with lower wages. Work experience leads to higher wages.

Second, school background measures have little or no influence on wages through the measures of early employment experience of this study. Consequently, there are no noteworthy differences of indirect effects between the gender and race groups.

Hypothesis 2 received some empirical support. Certain early employment experiences independently influence wages, especially for women. But, Hypotheses 3 and 4 concerning indirect effects must be rejected. The early employment measures of this study do not mediate the contributions from school background for any status group. Nearly all of the impact of school background on wages is direct, and probably contingent on explicit and implicit forms of socialization that are rather imprecisely defined by the available schooling measures.
RESULTS FROM FIELD STUDIES

The field studies focused on women preparing for immediate employment in vocational high schools. The goal was to determine (a) the contributions from informal socialization experiences in schools to the development of nontechnical work skills, and (b) the types of nontechnical skills that are associated with higher levels of success in the workplace. The field studies revealed the following patterns.

Social Capital and Nontechnical Skills

Students had chosen the vocational school because they believed it was a trustworthy social organization -- one that would help them develop the skills employers wanted. The vocational teacher, with whom they spent the largest single part of their school day, was the person they were more likely to trust. When trust could not be established, students became confrontational or apathetic to school.

Second, teachers stressed the development of "maturity" in students, because it essentially meant that students could be relied upon to cope within a work setting. Students who displayed higher levels of maturity were more favorably evaluated and supported in work-related matters. They had learned to live in schools.

Third, some differences in maturity were identified across program types that seemed in part to be related to how the teacher structured interactions with students. Students whose experiences included an emphasis on normative conformity demonstrated skills that were interpreted as being mature. They were in classes where students and teachers more often interacted as a group. They were also more likely
than their peers to ask questions and analyze problems because the setting was conducive to such behaviors. Teachers who used individualized instruction and tried to coerce students into activities often had students who were confrontational or indifferent.

**Nontechnical Skills and Employment**

Although 80 percent of the employers surveyed stated that they most often used work references from other employers to choose an applicant for clerical jobs, almost as many (73.5%) also relied on interpersonal references from them. They were least likely to rely on demonstrated technical skills in typing, shorthand and math tests -- procedures identifying human capital skills.

Second, of all sources of information employers use when selecting prospective clerical employees, over 60% of the responses in this study describe nontechnical skills. The skills employers rely on are: professional or neat appearance (29%), demonstrates proper attitude toward work (19%), and displays confidence and self-awareness (15%). In contrast, only 16% of all sources mentioned by employers represent technical expertise (e.g., asks pertinent questions about the job.)

Third, according to employers, the most important skills for successful job performance in clerical jobs are nontechnical: positive attitude (19%), knows how to get things done (16%), and maintains confidentiality (9%). About nine percent were particular about a finished product, which is probably related to technical knowledge. Skills associated with strategic use of resources are especially important to success in the workplace.
LIMITATIONS OF THE STUDY

It is important to spell out the theoretical and methodological limitations of the study, and some strategies that address them.

First, the quantitative analysis relies on longitudinal data, consisting of two-year follow-ups. Nonresponse errors in longitudinal data can be troublesome when respondents are not available for follow-ups. However, NORC took special care to minimize nonresponse bias by subsampling from the base year and undertaking individual follow-ups.

Second, all student data were obtained by self-report. Self-reporting errors have been identified in the HS&B dataset for curricular program and family status. However, the results based on variables for program track (e.g., academic, vocational) are comparable to findings from other studies (e.g., those using sophomore transcript data), and the family measures are acceptable as controls. Wage data also probably contain some self-reporting errors, although a wage cap imposed to correct for outliers excluded less than 4% of the sample.

Third, although the proportions of explained variance in the models are comparable to those of previous studies with similar sample populations (e.g., Griffin and Alexander 1978; Griffin, Kalleberg and Alexander 1981), it is likely that the restricted range on the wage variable led to poorer predictions than would be found for a sample of the population of all workers. On the other hand, it was expected that the contributions from school social capital are likely to be most discernible in the years immediately following high school.

Fourth, the effects are likely to be higher than actually reported, for two reasons. The results for blacks are particularly susceptible
to sampling instability due to a smaller total N. The HS&B is not an ideal dataset, because dropouts are eliminated, many of whom are likely to be minorities. However, other datasets (e.g., Project Talent) have similar problems and do not provide indepth, up-to-date measures of schools and schooling. To partially compensate, mean substitution by race (and Hispanic ethnicity) was employed to retain cases. Future research using data from the NCES survey currently in progress can help to avoid this problem, because data collection begins in grade 8. Also, the measures of school background, especially student-teacher relations, are rather imprecise measures of social capital resources, although the field data help to confirm the implications drawn.

Fifth, the findings from the field studies represent primarily the more formal interactions in classrooms. However, in the smaller vocational classrooms of these schools, ancillary activities such as contacting employers and tutoring students (identified as important in the quantitative analysis) are difficult to separate from pedagogical tasks such as presenting new information. Moreover, a heightened sensitivity to workplace norms (and interpersonal strategies to teach them) is not unexpected when programs receiving federal monies are mandated to place a certain percentage of students in jobs. It is argued that these influences do not change the benefits of school support, but only make manifestations of support such as teacher involvement more visible. Further work must be undertaken using a larger sample, however, including data from other students and schools, before firm conclusions can be drawn based on the findings. Work should be undertaken to determine whether black and other minority
females might benefit from informal school socialization in ways that cannot be identified using current survey data.

Sixth, the findings of the quantitative and field studies are representative of the population defined by the study's parameters. In either case, generalizations to other student subgroups (e.g., those dropping out of school prior to their senior year) should be made cautiously, considering that a major goal of the study was to identify important school social resources. Social relations between teachers and students who dropped out differ from students who remain in school.

Future studies might proceed by obtaining measures of organizational skills grounded in research on adult workers in one community, and then return to an approach similar to the present study. Indepth interviews could include not only employees of clerical, sales and technical jobs (who are probably high school graduates), but also workers in cleaning, health, food and personal service jobs, who might have less than a high school diploma. Manpower training programs could be used to identify younger female and minority workers, whose preparation and jobs -- and greater pressures to work -- make them particularly vulnerable to workplace uncertainty. The results can help to identify the types of questions needed in large-scale surveys about socialization and work. Emergent issues might be: what are the potential social resources minorities could tap (networks), and which are they able to use and why (coalitions and social support). Also, we need data from "recipients" and "donors" or "mobilizers" of resources to determine the connections between values and socialization.
DISCUSSION AND IMPLICATIONS

"The success literature has shifted with the success pattern. It is still focused upon personal virtues, but they are not the sober virtues once imputed to successful entrepreneurs. Now the stress is on agility rather than ability, on "getting along" in a context of associates, superiors, and rules, rather than "getting ahead" across an open market; on who you know rather than what you know; on techniques of self-display and the generalized knack of handling people, rather than on moral integrity, substantive accomplishments, and solidarity of person; on loyalty to, or even identity with, one's own firm, rather than entrepreneurial virtuosity. The best bet is the style of the efficient executive, rather than the drive of the entrepreneur" (C. Wright Mills, 1956, p. 263).

The research reported in this study focused on socialization into work organizations during the high school years. Much of what is known about socialization for work roles has come from case studies of workplaces. The majority of these studies, however, describe socialization into occupations, rather than preparation to work in organizations. Regardless of conceptual orientation, the studies suggest that lower echelon workers either must: (1) conform, that is, learn the rules and follow them, or (2) innovate, that is, learn to use informal mechanisms through which work settings can be controlled (see the review on sources of power for workers "at the bottom" by Kanter and Stein 1979). The findings from the present study suggest that both strategies can be effective. Yet, it is instructive to observe how individuals learn to follow rules and to apply basic strategies to cope with organizations.

First, all noncollege students show some economic benefits from schools. However, the model of the present study better predicts the contributions of school background for women and blacks. For women,
informal socialization activities seem to be of greatest importance. Males not bound for college benefit from obtaining demonstrable indicators of education, primarily grades and coursework. Blacks accrue economic advantages from formal rather than informal socialization, such as curricular track and CO-OP/work-study courses. The explanatory power of school socialization is minimal for whites.

Second, the informal socialization of women in high school work preparation programs stresses the acquisition of both technical and nontechnical work skills. But, for women in the business programs studied, the development of technical expertise seemed to be secondary to the acquisition of nontechnical skills. Also, there is a clear correspondence between the nontechnical skills of these women and the skills their employers use to determine successful job performance.

Based on the evidence from representative data and the case studies, several conclusions can be drawn pertinent to the questions posed at the outset of this study. It was expected that both (a) knowledge of basic institutional resources, such as how to identify the more important organizational rules, and (b) knowledge about the strategic use of these resources were important for a greater measure of success in work settings. However, the field studies revealed that resources that are unknown or unavailable cannot be useful. Socialization experiences must offer both chances to access resources and experiences that teach how to use them. It is not enough to know whom to contact or what rules to follow. One must also know which procedures to select in response to a problem or event, and how to implement them effectively (see Kanter and Stein 1979; Edwards 1979).
The findings of this study suggest that noncollege women are being socialized for work in ways that reflect the nature of the employment structures they are likely to enter -- organizations that, on one hand, provide little formal access to power structures in the lower echelon positions they are likely to take, and on the other, require them be successful in complex social situations, such as with employers and clients. When the implications are considered carefully, however, it does not seem likely that current informal school experiences can be relied upon to socialize large numbers of students in systematic ways.

In trying to get students to demonstrate "maturity" for work, sometimes teachers close off chances for their students to obtain it. Students who trusted the school organization to provide the appropriate experiences for work react in different ways when they believe that their trust has been misplaced. Some act helpless and try to get their teacher's attention. Others simply retreat, either by becoming indifferent to school or by avoiding it altogether in skipping school or dropping out. Students in a job with situations calling for them to use nontechnical skills that have not been well developed can become hostile to the school, to their teachers, and to work roles.

Yet, the study shows that there are some economic benefits to young workers who are able to demonstrate to employers that they know how to get along in organizations. Such workers are more likely to be hired and their job performance rated as successful than are their peers without these skills. Displays of appropriate demeanor, appearance and techniques for getting work done are likely to suggest to the employer, as to the teacher, that this individual can identify and apply
important rules about life in organizations. Indeed, individuals who can be trusted are more likely to benefit at school and work.

Some of the goals and norms about coping with work organizations are learned in school, at least in certain schools. Similar to the functional community of Catholic schools, vocational schools as "value communities" offer students chances to acquire norms and confront the social circumstances of formal organizations. In contrast to status attainment hypotheses about parents and peers -- and concerns from critics that working class youths learn little else in school other than conformity and docility -- the present study reveals how complex socialization processes really are to prepare youths for the adult world. Yet, not all students have equal opportunities, even within one class or gender group. Future work should investigate other social communities in which goals and norms prepare youths for membership in organizations, such as the Job Corps and magnet or alternative schools.

In conclusion, it is fruitful to view schools as value communities. Perhaps the main contribution of high schools should be to provide an environment in which youths learn how to become integrated into social institutions. If so, the key resource to develop and provide it is trustworthiness -- between teachers and students, and between students and members of the community. Employers look for trustworthy workers, and they do so by looking for observable behaviors in prospective employees that suggest the presence of nontechnical skills. CO-OP and other programs socialize students; they also help employers define what the norms and goals of the school should be and identify the more suitable job candidates (see Dorsten and Hollenbeck 1989). Although
such programs are useful for some students, schools might work on structuring internal social relations that will promote involvement and goal setting, not indifference or hostility. In this regard, schools, educational leaders and policymakers should carefully reconsider the current emphases on goals of cognitive skills and technical expertise.

Coleman's (1961) landmark study of high school subcultures conducted over a quarter of a century ago revealed that student groups often support norms that alienate youths from school life. Since that study, there has been a tendency to dwell on school culture, such as discipline problems and other "deviant" aspects of the youth culture. The supportive elements of school communities too often have been ignored. Recent research findings, however, suggest that school "specialty shops," such as athletics and vocational education, are a source of valuable social interactions with concerned adults, which often prove to be helpful to students (Powell et al. 1985; see also Goodlad 1984). In their recent study of public and private schools, Coleman and Hoffer (1987) conclude that schools can help students overcome some of the social and economic disadvantages associated with family status (see also Lee and Bryk 1989). The results of the present study offer insights into how schools help prepare women and other minorities for work roles. It is hoped that this research will foster more investigations viewing schools as social communities, and that scholars will study what is learned in school in addition to academic achievement or technical expertise. For, it is just possible that helping students to bridge the gap between schools and adult organizations is what high schools do best.
FOOTNOTES

1 Parcel and Mueller (1983, pp. 195-196) report that the class/authority variables (responsibility for pay and promotion, number of subordinates, have a supervisor) do not have a significant net effect for white female heads.

2 As Farkas and England (1988, pp. 245-246) point out, economists who argue that the male-female wage gap is beyond the purview of comparable worth issues are underestimating the impact of perceptions and loyalties created by employer and worker networks that alter calculation of self-interest.

3 Employment while in high school adds to a later earnings advantage (Meyer and Wise 1982). However, Creasberger and Steinberg (1986) find that working fewer hours (less than ten hours per week) is most conducive to personal growth, and is less likely to interfere with school performance or produce cynicism about work.

4 As discussed later in this chapter, there are competing views about the value of nontechnical skills and their social relations sources.

5 Although not providing a separate community setting as does the Job Corps, the vocational school does offer youth with unsuccessful public school experiences a "second chance" to develop goal-directed behavior to cope with the social conditions of work.

6 Good (1983) also provides a comprehensive review of other research. From the research on effective teachers, he finds that those who are more effective in the classroom (1) are clear in presenting new information and are task focused, (2) invite student questions with little positive or negative evaluation, (3) express higher achievement expectations (more homework, a faster pace), and (4) have fewer behavioral problems. Academic achievement is usually the focus, however.

7 Some scholars interested in the contributions to individuals from participation in extracurricular activities have taken a different approach. DiMaggio (1982) argues that participation in "high culture" activities such as music and the fine arts helps those of lower social status acquire the appropriate behaviors associated with higher social status. He stresses that those involved in high culture activities acquire "cultural capital," which is useful in obtaining jobs with higher prestige. This occurs through adoption of behaviors and values consistent with those of higher status groups.
In determining the sample, public and non-public schools first were separated, and then substrata were identified using geographic region, racial and ethnic composition, urbanization, community income level, enrollment size and gender composition (Frankel et al. 1981). Nine strata of schools were identified (e.g., regular public, regular Catholic, and other private schools), and several of the strata were oversampled. Schools that were oversampled included public schools with high proportions of Hispanic students and public alternative schools.

Although it would have been preferable to have data from teachers when the seniors were in the schools, given the rather short elapsed time period and the relatively slowly-changing nature of change in school systems, severely biased estimates of effects are not anticipated in the present study in ways that would invalidate the major findings.

The following research centers participated in the collection of the supplementary HS&B data.

The Center for Social Organization of Schools
Johns Hopkins University

The Wisconsin Center for Education Research
The University of Wisconsin-Madison,
School of Education

The Institute for Research in Educational Finance and Governance
Stanford University

The National Center for Research in Vocational Education
The Ohio State University

The Center for Educational Policy and Management
The University of Oregon

"Whites" includes all respondents other than blacks; about 2X of the weighted group includes others (e.g., Asians and American Indians).

Each preliminary model for the total sample and for the subsequent gender and race groups included all variables suggested by the theoretical model of figure 1.1. However, variables that did not produce statistically significant coefficients or affect other variables were excluded from further analysis. The variables that were excluded from all models are: MSA unemployment rate, school sector (public/private), parents' education, family income (logged), family social support (parents/guardians in household, parents interested in youth), best friend's college plans, non-business vocational track, a scale representing pragmatic/moral goals of teachers (teach occupational skills and moral/religious values), average number of math
and science courses taken, average hours on homework, student evaluation of effective school discipline, an index of student report about whether teachers/counselors care what the student does after graduation, an index of school conflict (e.g., verbal abuse of teachers, vandalism, and drug/alcohol use), a scale representing the use of grading based on effort, frequencies of job time with people and with ideas (1982), number of promotions/quiets for promotion (1982-1984), and number of children in household (1984).

12 A log transformation of the wage variable did not improve the R². This suggests a linear relationship already exists, which would be expected with the restricted sample. A probability plot of the residuals against their rank (probit) confirmed this.

13 The distinction is based on inspection, not empirical analysis. For the general purpose of this study, which focuses on schools, sectoral differences between the two approaches probably are minor. Preferred but not available are measures of the characteristics of economic segments, such as market power and organizational forms (size, structure and technology) (see Baron and Bielby 1984; Kaufman 1986).

14 The margin of error for self-report of high school curricula has been estimated to be as high as 30% over all groups, although the most serious biases seem to be for general program respondents (National Assessment of Vocational Education 1988). Transcript data for the senior cohort were not available, so results concerning curriculum effects are interpreted in comparison to past research that has used transcript data (e.g., Hotchkiss and Dorsten 1987).

15 To control the possible effects of environmental contexts not of direct interest, schools were chosen that had similar fiscal operating budgets, rates of unemployment and school dropout (Three-Year 1986-1988 State Plan and Accountability Report -Ohio 1984), and county average per capital personal income levels (County and City Data Book 1983).

16 Visits were made to a local area vocational school in the planning stages of the field studies. Business teachers and their supervisor were especially helpful in providing information about their students, program and employers, in arranging classroom visits, and in discussing their teaching and employment experiences. Staff with experience in teaching high school vocational courses (including business) at the National Center for Research in Vocational Education also were consulted.

17 Drafts of the student interview guide were reviewed with both professional researchers and clerical staff at the National Center for Research in Vocational Education. Several high school students completed the guide prior to the study (see the Appendix).
Supervisors seemed surprised that those chosen included "some of their best and worst students." However, the general clerical curriculum includes "disadvantaged" and lower ability students, while the executive secretarial contains the "better" students (intellectually and/or socially).

Prior to the first mailout, a personnel director and several supervisors of clerical workers completed an early draft of the questionnaire. Next, a small sample of employers from one school was sent a revised draft of the questionnaire to complete. Inspection of the results was undertaken prior to completing the final version of the questionnaire.

The only mailout delay was for the first reminder postcards, due to a 2-day holiday. A 61% response rate was achieved after the second mailout. Although the gamma function fixes the highest probability of responses to mailed questionnaires at the 6th day (Vigderhous 1977), delivery in one HSA took up to 5 days after the postmarked date. Maintaining exact mailing timings versus avoiding overlapping mailouts should be considered.

One respondent declined to participate, and after the third mailout, two forwarded the questionnaire to their personnel department (one was completed). Two respondents were identified as no longer with that company. Although a telephone call was made to their personnel departments and cooperation was solicited for completing the questionnaire, neither was received and no further action was taken.

Teachers were asked to rank eight goals of teaching, and to report the average number of hours they spend in 11 school-related activities. Two indices were created using the results of factor analysis (see the section on creation of the indices in chapter 3).

It is noteworthy, however, that there were no significant contributions in preliminary results from enrollment in a non-business vocational program. This finding is consistent with previous studies in which a wage benefit is not obtained from vocational programs other than business/office (Grasso and Shea 1979; Woods and Haney 1981).

The theoretical variables were tested for gender-race interactions. Only one statistically significant interaction emerged: compared to black women, black men who have participated in a greater number of school leadership roles receive higher wages.

Consistent with Valli's (1986) findings in a comprehensive high school CO-OP business and office program, there was no scarcity of openings for business CO-OP at the vocational schools. Indeed, one school had discontinued the CO-OP option due to lack of qualified students. Another allowed some students to enroll in the program who had not completed any previous coursework at the vocational school.
26 Dictation drills are shorthand practice sessions wherein the teacher reads aloud a specially timed paragraph or letter, pacing the reading to a particular dictation speed, e.g., 60 words per minute. Students write the dictated information using shorthand symbols.

27 In her interview, Jody did seem to be more mature than some students. During her pregnancy she had participated in the school program GRADS (Graduation Reality and Dual Role Skills). She also worked hard in and out of school to support herself and the baby, and had plans to attend a two-year college.

28 When asked why this was the case, since students presumably met in the vocational club meetings, she said that information was not passed from the senior to the junior students, but didn't volunteer why. She also noted that junior students didn't have chances to talk to seniors because they (seniors) went to their CO-OP jobs at 10:30.

29 She even quoted a recent report prepared by the school's program advisory committee (local business representatives who advise the school about local employers). According to her, the report stated that of the employers who require steno training, 80% used it as a "screen" to identify the better applicants, and only about 20% require steno skills on the job.

30 Preliminary examination of the data did not reveal consistent differences by industry of current or most recent job. Establishment size (large or small) was defined as whether the employer reported 100 or more employees at that location, or less than 100, respectively (Granovetter 1984). For the two employers who did not participate in the survey, size was estimated from information provided by the student.

31 Teachers of each interviewed student were asked to assign scores from 0-100 for that student on ten competencies for work (e.g., assertive, organized), where 0% was "much worse than other students in this course" and 100% was "much better than other students in this course." The instrument is modified from that used by Farkas, Grobe and Sheehan (1987). A copy is included in the Appendix.

32 Nor are Debra's the highest; there are at least 10 other students with grades higher than hers in this study. However, the students are from different schools and programs, and it cannot be readily determined in what ways grades vary among the three schools and teachers.

33 The most sophisticated level of control requires workers to be loyal and self-directed, suggesting internalization of the firm's goals (Edwards 1979, p. 150-151).

34 Skills nominated as most important for success on jobs did not vary by industry.
APPENDIX:

FIELD STUDY INSTRUMENTS
I am interested in learning about the kinds of activities that help people acquire nontechnical job skills. These skills usually develop from relationships with one or several people. What I am interested in are the kinds of skills that you have as a high school senior and how you obtained them.

There are no right or wrong answers. You are free to not answer any question, but we hope that you will share information about all of them. No one at this school or elsewhere will be given any information about how you answered any question.
GENERAL INFORMATION

First, I would like to ask you some general questions.

1. The name of your home school is ________________________________

2. Your mother’s current job is (from list of occupations).

3. Your father’s current job is (from list of occupations).

4. Do you have a job? About how many hours per week do you work? What kind of work do you do (from list)?

5. Who is your employer? In which department/branch do you work?

6. What other kinds of jobs have you held while in high school?

7. What type of job do you plan to have at age 30? (from list).

8. Does your current/most recent employer offer any of the following to full-time clerical employees?
   job posting
tuition for education
individual or group counseling
flexible job hours
   parental leave to care for new child
   union/collective bargaining

Are there other benefits? ____________________________________
9. What would you say are your "special strengths" or skills that make you a good employee? Please add any that are not listed.

- dependable
- complete tasks on time
- follow company policies/procedures
- demonstrate loyalty
- maintain confidentiality of employer
- seek new ways to get work done
- correctly relate information
- devise a plan of action
- communicate with coworkers
- select appropriate work clothing
- on time to work
- persist in getting a job done
- respect property/equipment
- negotiate to resolve conflict
- use proper language
- particular about finished product
- analyze problems
- anticipate new responsibilities
- communicate with supervisor
- have a positive attitude

Any others?

Why did you choose these skills?

10. What people helped you the most to develop these skills? Examples could be a friend or relative, a teacher or counselor, a coach or activities leader, a coworker or supervisor. How did they help?

11. Imagine that you are giving advice to someone who is thinking about taking a job like yours. Which of these skills would be most important for them to be rated as a good employee? Why?
12. In which of the following have you been active during high school?

- varsity athletics
- other athletics
- pep club
- band
- chorus
- debate
- subject matter clubs
- vocational education club
- junior achievement
- church group (name)
- community group (name)

Have you ever been an officer or leader in any of these groups?

SCHOOL ACTIVITIES

Next, I am going to ask you some questions about participation in the CO-OP/CBE course here (or the Office Education Association).

13. Let's talk about CO-OP/CBE (OEA). How long have you been in it?

About how many people are in it?

What does a person need to do to get into ___?

Why did you join? For example, did you join because someone suggested it to you to (e.g., friend, relative or teacher)?

What do you like about being in it? In other words, what does being in it let you do that other activities don't?
Finally, I would like to ask you some questions about work.

I would like for you to recall a frustrating situation that you had on your current or most recent job. Frustrating situations can be caused by not having the right kind of equipment or supplies, because you lacked some information that you didn’t get, or because you haven’t learned to do a certain task.

Usually, frustrating situations are related to being dependent on a manager or boss, a supervisor, or a co-worker. What I am interested in is what happened in the frustrating situation and how you responded.

First, I would like for you to describe a frustrating situation at work that you had recently, and the specific problem.

Exactly what actions did you take?

What do you think was the most important action you took to deal with the problem? Why?

Were there other ways to handle the problem?

Why did you choose to respond the way you did?
JOB CATEGORIES

CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent

CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter

FARMER, FARM MANAGER

HOOMEMAKER OR HOUSEWIFE ONLY

LABORER such as construction worker, car washer, sanitary worker, farm laborer

MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official

MILITARY such as career officer, enlisted man or woman in the Armed Forces

OPERATIVE such as meat cutter, assembler, machine operator, welder, taxicab, bus or truck driver

PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician but not including teacher

PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher

PROPRIETOR or OWNER such as owner of a small business, contractor, restaurant owner

PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter

SALES such as salesperson, advertising or insurance agent, real estate broker

SCHOOL TEACHER such as elementary or secondary

SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter

TECHNICAL such as draftsman, medical or dental technician, computer programmer

DON'T KNOW

NOT WORKING
LIST OF JOB CATEGORIES

Have not worked for pay
Lawn work or odd jobs
Waiter or waitress in a restaurant or drive-in
Babysitting or child care
Farm or agricultural work
Factory work, unskilled or semi-skilled
Skilled trade
Other manual labor
Store clerk or salesperson
Office or clerical
Hospital or health
Other
TEACHER QUESTIONNAIRE:
STUDENT WORK ETHIC CHARACTERISTICS

Directions: For each student listed, please provide the percentage that completes the statement.

Example:
If a student does poorly on homework, you might say that she does better than only 5% of JVS students taking this course that you have taught.

If a student does well on homework, you might say that she does better than 95% of JVS students taking this course that you have taught.

(WRITE THE PERCENTAGES FOR EACH STUDENT)

<table>
<thead>
<tr>
<th>STUDENT</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This student does better on homework than ____% of JVS students I have taught.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2. This student does better on class participation than ____% of JVS students I have taught.</td>
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</tr>
<tr>
<td>3. This student wants to do well and tries harder than ____% of JVS students I have taught.</td>
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</tr>
<tr>
<td>4. This student is better organized than ____% of JVS students I have taught.</td>
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</tr>
<tr>
<td>5. This student is more assertive than ____% of JVS students I have taught.</td>
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</tr>
<tr>
<td>6. This student's appearance and dress is better than ____% of JVS students that I have taught.</td>
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</tr>
<tr>
<td>7. This student's interpersonal skills are better than ____% of JVS students I have taught.</td>
<td></td>
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</tr>
<tr>
<td>8. This student is developing a more stable job history than ____% of JVS students I have taught.</td>
<td></td>
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</tr>
<tr>
<td>9. This student is more interested in obtaining further education than ____% of JVS students I have taught.</td>
<td></td>
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</tr>
<tr>
<td>10. This student has had more personal and social problems than ____% of JVS students I have taught.</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
SURVEY OF
OHIO EMPLOYERS OF CLERICAL WORKERS

This study is to help answer important questions about the problems and solutions of employers of clerical workers. Your answers will be combined with answers provided by employers across Ohio to produce a report on major issues in the education and training of clerical workers. All employers who participate can obtain a summary report by completing the appropriate section at the end of the questionnaire.

You can be assured of complete confidentiality. All information that would identify any individual, firm, or organization will be held in strict confidence, and will be used only by persons engaged in and for the purposes of the survey.

When you have completed the questionnaire, please mail it in the postage-paid, addressed envelope provided to:

THE OHIO STATE UNIVERSITY
The National Center for Research in Vocational Education
1960 Kenny Road
Columbus, OH 43210-1090

Attention: L. Dorstan

Mailing Date: __________
### Characteristics of Your Work Force

1. How many persons are currently employed full-time and part-time at your firm (All Locations)?

   **(Circle 1 Number)**

<table>
<thead>
<tr>
<th>1-9 Employees</th>
<th></th>
<th>10-19 Employees</th>
<th></th>
<th>20-49 Employees</th>
<th></th>
<th>50-99 Employees</th>
<th></th>
<th>100-249 Employees</th>
<th></th>
<th>250 or More Employees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td>3</td>
<td></td>
<td>4</td>
<td></td>
<td>5</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

2. How many persons are currently employed at your location?

   **(Circle 1 Number)**

<table>
<thead>
<tr>
<th>1-9 Employees</th>
<th></th>
<th>10-19 Employees</th>
<th></th>
<th>20-49 Employees</th>
<th></th>
<th>50-99 Employees</th>
<th></th>
<th>100-249 Employees</th>
<th></th>
<th>250 or More Employees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td>3</td>
<td></td>
<td>4</td>
<td></td>
<td>5</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

3. How many employees at your location are CLERICAL WORKERS?  
   Number of Full-Time Clerical Workers  
   Number of Part-Time Clerical Workers  

4. Over the past 5 years, how has the size of the total work force at your location changed?

   **(Circle 1 Number)**

<table>
<thead>
<tr>
<th>Increased More Than 50%</th>
<th></th>
<th>Increased Between 25-50%</th>
<th></th>
<th>Increased Less Than 25%</th>
<th></th>
<th>Remained About the Same</th>
<th></th>
<th>Decreased Less Than 25%</th>
<th></th>
<th>Decreased 25-50%</th>
<th></th>
<th>Decreased More Than 50%</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td>3</td>
<td></td>
<td>4</td>
<td></td>
<td>5</td>
<td></td>
<td>6</td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

5. From which entry-level clerical job is someone in your firm most likely to be PROMOTED? (Consider as entry-level these jobs that are at least 50% filled by new hires from outside the firm.)

   **(Circle Only 1 Number)**

<table>
<thead>
<tr>
<th>Secretary, nonexecutive</th>
<th></th>
<th>Typist</th>
<th></th>
<th>File Clerk</th>
<th></th>
<th>Receptionist</th>
<th></th>
<th>Accounting Clerk</th>
<th></th>
<th>OTHER (specify title)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td>4</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

   **Reason?**

6. For the job title you circled in Question 5, please circle from the list below the letter(s) of the traits or skills you think are MOST IMPORTANT for successful job performance.  **(Circle as Many as Applicable)**

   a. Plans Work Schedule  
   b. Completes Tasks on Time  
   c. Follows Firm's Policies/Procedures  
   d. Maintains Punctuality  
   e. Seeks New Ways to Get Work Done  
   f. Communicates Effectively  
   g. Anticipates New Responsibilities  
   h. Respects Privacy and Confidentiality  
   i. Communicates with Supervisor  
   j. Handles Difficult People  
   k. Persists in Getting a Job Done  
   l. Seeks and Analyzes Work Problems  
   m. Has a Positive Attitude  
   n. Anticipates New Responsibilities  
   o. Seeks New Ways to Get Work Done  
   p. Communicates with Supervisor  
   q. Communicates with Supervisor  
   r. Communicates with Supervisor  

   **W. OTHER (specify)**

7. For the skills and traits you selected in the previous question, please list your choices according to their ORDER OF IMPORTANCE for job success.

   **FIRST MOST IMPORTANT SKILL/TRAIT IS** ... 
   **SECOND MOST IMPORTANT SKILL/TRAIT IS** ... 
   **THIRD MOST IMPORTANT SKILL/TRAIT IS** ... 
   **FOURTH MOST IMPORTANT SKILL/TRAIT IS** ... 

8. For the job title you circled in Question 5, what is usually the FIRST PROMOTION?

   **TITLE OF FIRST JOB PROMOTION** ... 

   **SKILL/TRAIT MOST IMPORTANT FOR PROMOTION?** ...
11. FINDING QUALIFIED ENTRY-LEVEL CLERICAL WORKERS

9. To choose an applicant for the job title you circled in Question 5, which of the following SOURCES OF INFORMATION do you use?

(CIRCLE 1 NUMBER PER LINE)

<table>
<thead>
<tr>
<th>Source of Information</th>
<th>always</th>
<th>often</th>
<th>sometimes</th>
<th>seldom</th>
<th>never</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Attendance Records</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>References about Interpersonal Skills from Applicant's High School Teachers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Work References from the Applicant's High School Teachers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>A &quot;Readiness&quot; for the Interview</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(List below the specific &quot;readiness&quot; traits you like to see in applicants.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Grades</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>College/Postsecondary Grades</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>References about Interpersonal Skills from Staff Working Here</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Results from a Typing Test</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Results from Any Other Test (Specify below)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>References about Interpersonal Skills from Applicant's Previous Employer(s)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Work References from the Applicant's Previous Employer(s)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other Sources of Information (Specify below.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

10. For the job title you circled in Question 5, please select the NUMBER OF COURSE(S) that you would recommend for successful performance on that job.

(CIRCLE 1 NUMBER PER LINE)

<table>
<thead>
<tr>
<th>Course</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typing</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Shorthand</td>
<td></td>
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<tr>
<td>General Business</td>
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<tr>
<td>Bookkeeping</td>
<td></td>
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<tr>
<td>Accounting</td>
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<tr>
<td>Word Processing</td>
<td></td>
<td></td>
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<tr>
<td>Filing and Related Clerical Procedures</td>
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</tr>
<tr>
<td>Adding, Calculating and Duplication Machines</td>
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</tr>
<tr>
<td>Applied Math</td>
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<tr>
<td>Applied Communications</td>
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<tr>
<td>Business Orientation and Job Adjustment</td>
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<tr>
<td>Social Studies/Current Events</td>
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<tr>
<td>Public Speaking/Speech (Other Than English)</td>
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<tr>
<td>Human and Interpersonal Relations</td>
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<tr>
<td>Etiquette/Social Skills or Ethics</td>
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<tr>
<td>Health, Hygiene, and Grooming</td>
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<tr>
<td>Family Life</td>
<td></td>
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</tr>
<tr>
<td>Other Course(s) (List below)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Course(s)</th>
<th>0</th>
<th>1</th>
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<th>4</th>
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</table>
III. ON THE JOB

11. On the average, how long does it take a new employee with the job title you circled in QUESTION 8 to be reasonably successful in...?

INTERPERSONAL RELATIONS
with supervisors,
managers, and clients?

(CIRCLE 1 NUMBER)

INTERPERSONAL TASKS
that an experienced
worker can do, such as

data entry or typing?

(CIRCLE 1 NUMBER)

2-DAYS OR LESS . 1
3-DAYS . 2
4-DAYS . 3
5-DAYS . 4
6-DAYS . 5
7-DAYS . 6
8-DAYS . 7
9-DAYS . 8
10-DAYS . 9
5-WEEKS . 10
10-WEEKS . 11
2-WEEKS . 12
3-WEEKS . 13
4-WEEKS . 14
5-WEEKS . 15
6-WEEKS . 16
7-WEEKS . 17
8-WEEKS . 18
9-WEEKS . 19
10-WEEKS . 20
3-MONTHS . 21
6-MONTHS . 22
12-MONTHS . 23
2-YEAR . 24
3-YEAR . 25
4-YEAR . 26
5-YEAR . 27
6-YEAR . 28
7-YEAR . 29
8-YEAR . 30
9-YEAR . 31
10-YEAR . 32

12. During the last 5 years, how well prepared has your firm found business and office students or graduates from...

VOCATIONAL PROGRAMS
in joint vocational schools?

(CIRCLE 1 NUMBER)

NON-VOCATIONAL PROGRAMS
in regular high schools?

(CIRCLE 1 NUMBER)

MOST ARE WELL PREPARED . 1
SOME ARE WELL PREPARED . 2
FEW ARE WELL PREPARED . 3
NOT APPLICABLE because

12a. Why do you think that? Please list below the reasons for your answers to the previous question.

VOCATIONAL PROGRAM GRADUATES:

NON-VOCATIONAL PROGRAM GRADUATES:

IV. ABOUT YOU

14. What is your job title?

15. Please circle the letter for each category that describes your usual responsibilities with clerical workers at your firm.

a. OVERALL SUPERVISION (INCLUDES ALL BELOW)

b. INTERVIEW APPLICANTS

c. MAKE FORMAL HIRING DECISIONS

d. SANCTIONS/DISMISSALS

e. ORGANIZE EMPLOYEE TRAINING

16. Are you MALE or FEMALE (CIRCLE 1)

17. How many years have you worked for/owned this company? ________ YEARS

18. What is the highest level of education you have completed?

(CIRCLE 1 NUMBER)

LESS THAN HIGH SCHOOL DIPLOMA . 1
HIGH SCHOOL DIPLOMA . 2
SOME COLLEGE (LESS THAN 4 YEARS) . 3
COMPLETED A 4-YEAR PROGRAM . 4
MASTER'S DEGREE . 5
DOCTORATE OR PROFESSIONAL DEGREE . 6

19. How many high school VOCATIONAL BUSINESS STUDENTS have you supervised?

AT THIS LOCATION

AT OTHER LOCATIONS/JOBS

20. Please select the INDUSTRY/FIELD of your firm.

(CIRCLE 1 NUMBER)

MANUFACTURING . 1
TRANSPORTATION, COMMUNICATION, PUBLIC UTILITIES.

AND SANITARY SERVICES . 2
WHOLESALE AND RETAIL TRADE . 3
BANKING, FINANCE, INSURANCE AND REAL ESTATE . 4
BUSINESS AND REPAIR SERVICES, SUCH AS MANAGEMENT/CONSULTING,

EMPLOYMENT AGENCY, COMMERCIAL RESEARCH, COMPUTER

PROGRAMMING, AND AUTO/ELECTRICAL REPAIR . 5
PROFESSIONAL AND RELATED SERVICES, SUCH AS HEALTH, LEGAL,

EDUCATIONAL, WELFARE, ACCOUNTING/BOOKKEEPING SERVICES;

ENGINEERING/ARCHITECTURAL SERVICES; AND MUSEUMS/ZONES . 6
PUBLIC ADMINISTRATION, SUCH AS POSTAL SERVICES;

FEDERAL, STATE, AND LOCAL ADMINISTRATION . 7
OTHER NOT LISTED (specify) . 8
Please provide the appropriate name and address in the space below if you wish to receive a summary report of this research.

If I have left out any questions you think are important or you wish to discuss anything further, please provide your business telephone number and a convenient time that I may call you during the day.

Thank you very much for your contribution to this research. The section below is available for any other comments you may wish to make about your experiences in recruiting, hiring, training, or promoting clerical workers.
LIST OF REFERENCES


Greenberger, Ellen; Laurence D. Steinberg, and Mary Ruggerio. 1982. "A Job is a Job is a Job . . . or Is It?" Work and Occupations 9: 79-96.


