Work-Based Learning and Social Support: Relative Influences on High School Seniors' Occupational Engagement Orientations

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Abstract

This study examined the efforts of a large, urban school district to reduce future occupational disengagement risks by requiring all high school students to complete 60 hours of work-based internships. The hypothesis was that social support from adult supervisors and mentors positively affected students' occupational engagement orientations over and above the influence that programmatic experiences provided. The survey data for this study were collected from all seniors in the district's 17 high schools (N = 1,741). Ordinary Least Squares (OLS) was applied in a hierarchical regression in four stages. The findings indicated that opportunities to receive social support, especially having a mentor, contributed most to seniors' future dispositions toward occupational engagement. District career and technical education (CTE) students also experienced greater social support than non-CTE students. The recommendations focused on the need for comprehensive high schools to provide more access to supportive adults and personalized supportive learning environments.

Introduction

Students benefit when schools enable them to take part in learning opportunities beyond the traditional classroom that can transform their minds and build their personal capacity toward future possibilities (Dewey, 1916). In educating youth for socially and economically productive adult roles within a democratic society, public schools play a significant role in assisting youth in clarifying future goals, determining a career orientation, preparing for pro-social participation, and cultivating civic- and occupational-oriented competencies (Cotterell, 1996). Continuing low academic performance in the face of a rapidly changing global economy, rising fears about future global competitiveness, and trends for political and community disengagement have fueled growing concerns that today's youth, especially those in urban, higher-poverty, and lower academically achieving contexts, are unprepared for socially and economically productive adult roles vital to democratic citizenship and stability (Putnam, 2000; Rosenbaum 1996; Steinberg, 1998).

The evolution of the modern American and global economies poses significant challenges to urban youth who may lack adequate employment-search knowledge, resourceful social ties, and support. Many students have high, if not exaggerated and

unrealistic, occupational aspirations (Roy & Rosenbaum, 1996). A national study of 6th-graders, for example, reported that 80% plan to pursue occupations that require education beyond high school including four-year college or advanced degrees (Csikszentmihalyi & Schneider, 2000). Despite high occupational aspirations, these same young people generally viewed schooling as not relevant to their career plans. Unrealizable ambition gives way to disillusionment, discouragement, and disaffection as young persons have limited career knowledge and opportunities to "talk seriously with adults, or each other, about how the present and future connects, how present clues provide insights into future life-styles or careers" (Steinberg, 1998, p. 7). These students likely lacked a basic sense of what adult work entails.

Given the economic challenges, urban youth are required to become economically productive and self-sufficient adults capable of adapting to rapidly changing and fluctuating labor markets (Rosenbaum, 1996). Continuous technological innovations, increased employer demands for higher skills and competencies, corporate restructuring, downsizing, underemployment, real living wage decline, the flight of manufacturing abroad, and gradually weakening labor unions, characterize the turbulent labor market context that 16-24 year old young adults face (Sum, Fogg, & Mangum, 2000). Outside of low-wage jobs with minimal security benefits, fewer opportunities exist to achieve economic independence and self-sufficiency for those without higher education (Rosenbaum, 1996). As inflation has continued to rise faster than the living wage since the 1970s, and with the sharpest decline in relative income among those in the lowest quartile, the poor are only getting poorer (Baker, 2005; Pollin, 2003).

Based on data collected by the Bureau of Labor Statistics, the decline in inflation-adjusted real earnings since 1981 has particularly affected those with less formal education (-25%), no high school diploma (-38.8%) compared to those with a bachelor's or higher degree (-2%) (Sum et al., 2000). These economic conditions diminish the capacity for meeting basic family needs and increase the likelihood for family economic distress and harmful youth developmental effects, found to be disproportionate among urban ethnic minorities (Barrera, Caples, & Tein, 2001; Elder, Eccles, Ardelt, & Lord, 1995; Schneewind, 1995).

Difficulties for labor market entry and access will continue to rise as the number of 16-24 year olds is projected to increase 21% between 1995-2010 (Sum et al., 2000). Two-thirds of this group will be Non-Whites and Hispanics, who typically have lower formal education levels and limited English proficiency (Sum et al., 2000). Unemployment among 16-24 year olds (-5.2%) far exceeds levels among all other age groups. Out-of-school young adults, especially males, face formidable challenges to gaining labor market access without formal education and basic skills (Sum et al., 2000; Sum, Khatiwada, Palma, & Perron, 2004). Such young adults are occupationally unprepared and likely to "spend the better part of their twenties somewhat adrift and disengaged" (Rhodes, Grossman, & Roffman, 2002, p. 17). As occupationally disengaged adults, these individuals are "unlikely to earn a decent

living" and "face bleak prospects of dead-end work, interrupted by periods of unemployment, with little chance to climb a career ladder" (United States Department of Labor, 1991 p. iii).

More young people are also growing up in socially and economically disadvantaged families and environments where they are likely to experience social isolation, limited access to information, and lack of pro-social modeling (Gephart, 1997; Masten & Coatesworth, 1998; Rhodes et al., 2002). Limited social resources prevent these transitional youth from overcoming the occupational disengagement risks increasingly permeating American society.

For decades, American education, particularly traditional American comprehensive high schools, have been criticized for perpetuating youth risks for adult occupational disengagement by failing to produce young adults with "mature and informed judgment needed to secure gainful employment, and to manage their own lives, thereby serving not only their own interests but also the progress of society itself" (United States Department of Education, 1983, p. 1). In response, educational reform policies, such as the No Child Left Behind Act (2001), have emphasized increased expectations, academic performance, and educational attainment for every American child in a high standards, competency-building learning environment. Generally, policies emphasize "walled-in" or building-centered education reform strategies and tend to be problematic as they generally do not engage socially and economically disadvantaged students deeply enough on external environmental and developmental levels (Anderson-Butcher, Lawson, Bean, Boone, & Kwiatkowsi, 2004). More purposeful interventions are needed especially in these contexts.

In order to combat the risks of occupational disengagement, many educational leaders and policymakers have implemented high school programs that encourage career exploration, preparation, and development activities or "*work-based learning*" (Bailey, Hughes, & Moore, 2004, p. 6; Northwest Regional Educational Laboratory, 1996) through which future career and life-path orientations are critically shaped (Cotterell, 1996). These high school programs have also become increasingly infused into education standards and high school graduation requirements (RMC Research Corporation, 2002; Shumer & Cook 1999; Skinner & Chapman, 1999).

School districts may adopt mandatory work-based learning requirements to increase students' occupational engagement orientations by the end of high school. However, evidence is lacking regarding the efficacy of such policies in socially and economically disadvantaged contexts and school districts in crises. The investigation of the Internship Program in the study addresses this critical need.

The Problem

In 1998, the school board of the "Midwestern City Schools," a large urban school district in this study, approved a work-based learning graduation requirement

to reform its high schools and address occupational disengagement risks. The school district was faced with meeting only 3 of 18 state academic performance standards, a 62% high school graduation rate, and a pending rating of "academic emergency" by the state.

Through an initiative known as the *Internship Program*, 11th- and 12th-grade high school students were required to earn a minimum of 60 hours in out-of-class work-based internships according to their intended career choices or interests. The district advised schools to identify a teacher, usually designated as "on special assignment," to assist students in selecting internships. Students were required to complete 30 hours through unpaid internships in the 11th-grade and 30 hours through paid internships in the 12th-grade. Although students were required to complete unpaid and paid internships, high schools were not required to provide students with these placements. The district defined an internship as an "actual first-hand professional experience outside the classroom," which is designed to "give students an up-close look at the world of work" and a "useful link to the market" (Midwestern City Schools, 1998).

Beyond meeting employer demands and job-specific responsibilities, students were not required to complete any additional activities or objectives at their worksites required by the school or work-based learning plans. It was strongly recommended that students work with mentors who could provide one-on-one job training to achieve a more intensive job exploration. However, no specific structures were provided to ensure that this happened for all district students. Additionally, no districtwide plans were made to provide students release time to complete their internships during the school day. Moreover, the district did not provide any special preparation or training regarding the work they were expected to perform in these internships.

Purpose of the Study and Research Questions

The Class of 2002 became the first district graduating class with the Internship Program requirement. This study examined the efficacy of the Internship Program with respect to promoting positive occupational engagement orientations at the end of high school. Bringing a theoretical perspective, the study also examined the influence of socially supportive relationships experienced by students as they fulfilled program requirements on their occupational engagement orientations. Specifically, three specific research questions were of interest:

1. How much do student demographic characteristics (e.g., gender, ethnicity, Socioeconomic Status [SES], Grade Point Average [GPA], English as a Second Language [ESL]) account for high school seniors' orientations toward occupational engagement?

2. To what extent, does completion of work-based internships (i.e., unpaid internships, paid internships) influence high school seniors' occupational engagement orientations?

3. How influential is social support in enhancing high school seniors' occupational engagement orientations over and above the influence that work-based internships provide?

Theoretical Framework

The theoretical framework guiding this study regarding the relative influences of work-based learning and social support on occupational engagement orientations at the end of high school was based on a theoretical model in the research and literature (see Figure 1). Each frame in the model is explained below.

Occupational Engagement Orientation

Economically engaged and productive young adults have developed an orientation towards a distinct career or occupational pathway, enabling them to become economically self-sufficient (Hamilton & Hamilton, 1997; Orr, 1996; Röhrle & Sommer, 1994). The young person typically accomplishes this transformational process through meaningful work-based learning experiences, achieving occupational goal clarity along with the confidence, drive, and capacity to develop a career plan based on individual goals, values, and strengths (Zeldin & Charner, 1996). Through meaningful work-based learning experiences, high school students gain an understanding of career options, steps, and the skills necessary to attain occupational goals (Bailey et al., 2004; Clausen, 1991; Csikszentmihalyi & Schneider, 2000).

Developing and identifying an occupational pathway during high school enables students to develop a motivating self-image or vision of the future person they wish to become (Bailey et al., 2004). A focused self-concept buffers the young person against formidable environmental stress or other negative external stimuli that may deter them from pursuit of certain occupational pathways. Instead, they gain employment-oriented skills and information about employment options needed to reach occupational goals. Competency-building experiences that increase motivation and drive for certain occupational pathways during high school enhance self-confidence, self-worth, and identity essential in making a successful transition to adulthood (Zeldin & Charner, 1996). These skills, dispositions, and competencies lead high school students to develop occupational engagement orientations (Hamilton & Hamilton, 1997; Orr, 1996; Röhrle & Sommer, 1994).

As depicted by the top box in Figure 1, occupational engagement orientations (OEO) at the end of high school reduce the risk of adult occupational disengagement. As the principal Internship Program outcome, OEO indicates that seniors have

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clarified career interests, confidence, and skills to pursue a defined career pathway. The lower-middle box frames the mandatory work-based learning requirement (i.e., unpaid internships in the 11th-grade, paid internships in the 12th-grade), which potentially assists students in achieving positive occupational engagement orientations. These relationships are indicated by arrow *b*.
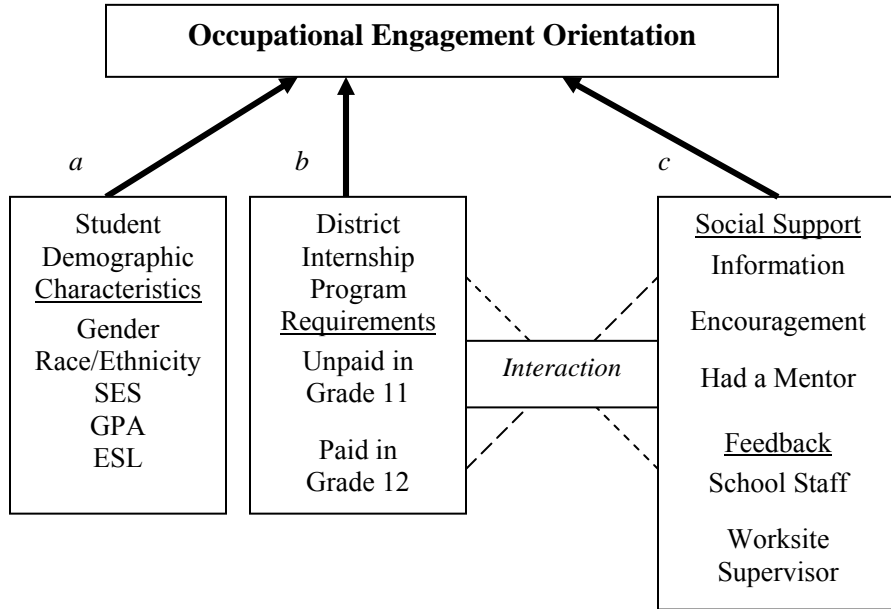

Figure 1. Theoretical model for the relative influences of Internship Program requirements and social support on high school seniors' occupational engagement orientations.

The Role of Social Support

Building positive orientations to occupational engagement in high school, students require "purposely creating environments", which provide an "array of opportunities" and "constructive, affirmative, and more encouraging relationships" with community adults (Perkins, Borden, Keith, Hoope-Rooney, & Villarruel, 2003, p. 6). These environments, opportunities, and relationships enable high school students "to build their own competencies and become engaged partners in their own development as well as the development of their communities" (Perkins et al., p. 6). The drive of high school youth to assert greater independence results in the developmental necessity to form more social ties with pro-social adults in networks apart from family, neighborhood, and childhood friendship circles (Gottlieb & Sylvestre, 1994). Pro-social adults are supportive role models who provide guidance

and feedback as they supervise young people's activities especially at critical adolescent developmental transitions (Takanishi, 2000). Further, supportive relationships with mature, caring, pro-social adults offer instrumental access to educational resources providing education and adult-oriented guidance and encouragement. They provide high school students with advice and skills essential to performing adult roles (Lee & Croninger, 1996).

For students experiencing familial distress, relationships with significant, nonfamilial socially supportive adults can enhance self-esteem, academic engagement, aspirations for higher achievement, social adaptation, and integration into the wider community (Cochran & Bö, 1989; Cotterell, 1996; Gottlieb & Sylvestre, 1994). Successful individuals, despite experiencing childhood deprivation, commonly point to the beneficial influence of supportive adults who provide advice, encouragement, and assistance (Hamilton, 1990; Wilson, 1996). Additionally, socially supportive adults provide high school students with structural supports for important resources, models, emotional support, and feedback (Pianta, Stuhlman, & Hamre, 2002). Furthermore, interpersonal ties, within functional social networks offer high school students needed support, resources, and information (Cotterell, 1996; Granovetter, 1975). As part of such networks, caring, pro-social adult relationships can provide these students with a needed "convoy' or delivery system of developmental resources to help promote occupational purpose (Cotterell, 1996, p. 1).

Types of Social Support. Many scholars argue that resources stem from supportive relationships with adults to the extent they contain *informational support* (i.e., providing advice, assisting in goal clarification), *emotional supp ort* (i.e., providing encouragement), *feedback* (i.e., feedback performance on work-related tasks), and involvement with an adult *m entor* (Cauce, Mason, Gonzales, Hiraga, & Liu, 1996; Hamilton & Hamilton, 1997; Pianta et al., 2002; Sandler & Twohey, 1998). The image of adult careers alone does not have enough magnetic pull to motivate most young persons into taking control of their lives without direct involvement and intervention by supportive adults and mentors (Larson, 2000).

Mentors assist high school students by serving as an important bridge between their social worlds and the work of adulthood (Lee & Croninger, 1996). Accordingly, mentoring relationships most often involve one-to-one instruction within a structural setting. Although interactions with significant, supportive, nonfamilial adults are helpful, it is not until these relationships achieve a mentoring status that student preparation for adult pro-social and productive roles is most effective (DuBois, Nelville, Parra, & Pugh-Lilly, 2002; LoSciuto, Rajala, Townsend, & Taylor, 1996).

Mentor social support during the high school years leads to higher self-esteem, coping skills, and greater personal competencies, that strengthens individual identity and resolve that one has a bright future and can make a difference in the world (Sandler, 2001). When high school students achieve this level of development, they manifest a capacity for executing a course of action to reach a desired goal and

exercising the necessary energy and motivation despite challenges, obstacles, or difficulties (Bandura, 1995, 1997). The stronger this capacity becomes, the more likely significant tasks will be accomplished (Stipek, 1993). With this sense of achievement, individuals become more persistent in their efforts to excel in challenging situations (Hoy & Miskel, 2001).

Receiving adult social support (i.e., information/advice, encouragement, feedback from worksite supervisors, school staff, mentoring) during the high school years is vital to students, as decisions concerning educational and occupational pursuits may appear daunting and confusing. This is especially critical in environments with patterns of mass social disengagement where fewer opportunities for contact with competent, resourceful role models may lead to unrealistic or limited life choices and opportunities (Smith & Carlson, 1997). Ideally, work-based learning and the Internship Program would provide the important convoys of social support. The following section describes the critical role of socially supportive interactions with caring adults and the potential benefits of student participation in work-based internships.

A Moderating Relationship. The success of work-based learning experiences depends upon the social support that students receive (Bailey et al., 2004). Students are likely to feel an even stronger connection with supportive adults in the workplace than at school (Steinberg, 1998). Students are more apt to view workplace adults as having valuable information relevant to perceived needs and interests or as more personal and interested in individual student interests and goals. In any case, work-based learning enables youth to experience generally supportive positive relationships with adults that they would not otherwise have (Bailey et al., 2004; Hughes, Bailey, & Merchur, 2001; Wenger, 1998). Early in-school work experiences have proven to be a worthwhile human capital investment by enhancing school relevancy, increasing graduation rates, and producing favorable labor market results for young adults, particularly for ethnic minorities and the economically disadvantaged (Sum et al., 2000; Sum et al., 2004).

High school work-based learning programs operationalize essential components of youth development during the high school years including (a) opportunities to experience new roles; (b) occasions for receiving social support (i.e., information, encouragement, feedback); and (c) access to strategic relational networks (Zeldin & Charner, 1996). Although the general character of comprehensive high schools does not encourage in-depth occupational exploration, work-based learning initiatives that connect students to schooling and workplace learning environments have a potentially profound effect (Hamilton & Hamilton, 2000; Shanahan, Mortimer, & Krüger, 2002).

The box on the lower right in Figure 1 shows the systems of social support that may influence the efficacy of the Internship Program requirement as well as contribute independently to the Internship Program outcome. Student participants in the Internship Program can experience occasions of social support in the form of

career information sharing, encouragement, mentoring, and performance feedback from worksite supervisors and school staff. Information sharing includes discussing career plans with parents and supportive nonfamilial adults (e.g., teachers, counselors, other school personnel). Encouragement is the boost that parents and supportive nonfamilial adults can provide to students motivating them to participate in and complete program components. Mentoring provides personal guidance, including educational and career planning assistance. Students should receive written and verbal feedback about their internship performance from school-based and work-based supervisors. These relationships are indicated by arrow *c*.

The dotted arrow connecting the lower-middle and right boxes in Figure 1 indicates the possibility of an interaction between the Internship Program requirement and the social support that the students experience. As the literature regarding youth development and occupational engagement orientations during the high school years has suggested, work-based activities can create a system of social support for students when they participate in and complete unpaid and paid internship experiences.

Demographic Characteristics

Although urban and racial ethnic minority students have similar occupational aspirations as other groups, they often demonstrate lower levels of information about available careers and are likely to have lower expectations about those occupations they may explore (Constantine, Erickson, Banks, & Timberlake, 1998). Additionally, females perceive greater barriers to the development of their career goals than do their male counterparts (McWhirter, 1997). Further, young adults with limited English proficiency may face many occupational barriers because of lower formal education levels (Sum et al., 2000).

Despite their backgrounds and perceptions, high school students benefit by valuable employment-related information and contacts (Kasinitz & Rosenberg, 1996; Putnam, 2000; Wilson, 1996). This knowledge promotes greater stability in occupational aspirations (Shu & Marini, 1998). For example, students with higher SES and GPAs often have better experiences in this regard and, therefore, encounter fewer barriers (Clausen, 1991; Rindfuss, Cooksey, & Sutterlin, 1999). High schools students tend not to be aware of the influence of their demographic and background characteristics related to future occupational aspirations; they will continue to bear their negative effects well into adulthood without direct interventions (Johnson, 2002).

Student demographic background characteristics (e.g., gender, race/ethnicity, SES, GPA, and speaking English as a second language) may affect participants' access to career information, encouragement, and motivation to pursue a certain occupational pathway and, consequently, their orientations toward occupational engagement. The box on the lower left in Figure 1 indicates the influence of student

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demographic characteristics with respect to the Internship Program outcome. Demographic background constructs may have a direct relationship to seniors' occupational engagement orientations, as suggested by arrow *a*.

The theoretical framework suggests that internship experiences alone are insufficient to produce the desired occupational engagement orientations unless social support for student efforts accompany them. Therefore, the following hypotheses were formulated: (a) student participation in work-based internships enhances seniors' future occupational engagement orientations; (b) social support from adult supervisors and mentors positively affects students' occupational engagement orientations; and (c) the social support high school seniors receive in their work-based learning enhances the effect of their paid and unpaid internship experiences.

Methodology

Population and Sample

The target population was high school seniors in a Midwestern district's 17 high schools who were required to complete a mandatory Internship Program. The Class of 2002 was the first class to have experienced the entire Internship Program during their high school years. In order to assess their cumulative experiences in the Internship Program by the end of their senior year, the school district requested that all students receive, complete, and return survey questionnaires during the Spring of 2002 (Hawley & Marks, 2003).

Of the 1,741 seniors returning the surveys, 56% were female and 44% were male (see Table 1). African-American (50%) seniors constituted the largest racial/ethnic group followed by Whites (35%), Asian/Pacific Islanders (7%), Hispanics (5%), and Native Americans (3%). Total district student enrollment was 49% female and 51% male. The district student enrollment comprised 61% African Americans, 34% Whites, 2% Hispanics, 2% Asians or Pacific Islanders, less than 1% Multiracial, and less than 1% Native Americans or Alaskan Natives.

Students reported performing well academically with 84% having greater than a 2.01 GPA and over 51% of the seniors having better than a 3.0 GPA by the end of their senior year. Although self-reported GPA inflation may exist, particularly among students in the lowest GPA quartile (Dobbins, Farh, & Werbel, 1993; Frucot & Cook, 1994), the overall use of self-reported cumulative GPAs is highly reliable (Cassady, 2001). The academic success of these seniors may be attributed to being among the 59% in the school district who graduated in 2002, as reported by the school district. Perhaps, these "survivors" were the academically proficient who successfully navigated the high school experience unlike many of their peers who did not.

Table 1
District High School Seniors' Demographic Characteristics (N = 1,741)

Demographic Characteristics	District High School Seniors
Female	55.8%
Male	44.2%
Asian or Pacific Islander	6.8 %
Hispanic	5.2%
Black, Non-Hispanic	50.4%
White, Non-Hispanic	35.0%
American Indian	2.6%
Parent Levels of Education	
No college	59.1%
Some college	19.8%
College graduate	21.1%
Speaks English as a Second Language	9.5%
Students attending career centers	20.7%

Most students had a parent who never attended a college/university or pursued formal education beyond high school (59%). Some had a parent (17%) who did not graduate from high school. Nearly 20% of the students had a parent who attended some college or education beyond high school. Students with a parent attending a vocational or trade school (5%) were also included in this category. Other students had a parent who was a college graduate (21%). For 10% of the students, English was spoken as a second language. Many students (21%) in the sample attended one of the district's five career centers to pursue a career and technical curriculum for part of or the entire school day outside of their home high schools.

Instrumentation

To anchor and compare the students' responses nationally, some survey items were drawn from the *National Education Longitudinal Study of 1988* (NELS:88) and from the *Community Participation and U.S. High School Students Survey* (as cited in Marks, 2000). Additional items were created by the researcher for this study. The resulting survey consisted of 62 items and was divided into four sections (Bennett, 2008). Only the portions specifically related to this study are reported here.

In Section 1, respondents were queried extensively about the work-based learning requirement and in which grade they completed it. For example, respondents were asked to identify in which grade they completed specific unpaid internships, paid internships, whether they perceived themselves as personally benefiting from involvement, their specific occupational and educational plans, and the individuals who have influenced these plans.

Sections 2 and 3 focused on aspects of the career internship requirement in the 11th- and 12th-grades (one section for each grade). Respondents explained their internships, how they found out about them, the type of performance feedback they received, and the specific skill-related activities performed. In a subsequent section, respondents were asked about their experiences with mentors, aspects regarding neighborhood life, and beliefs and views with respect to community involvement. They described views toward neighborhood adults, neighborhood conditions, government, politics, access to political knowledge, and intentions to perform future volunteer service and influence public policy. Finally, respondents were asked to identify various aspects of their demographics (e.g., gender, race/ethnicity, parents' education, English as a Second Language).
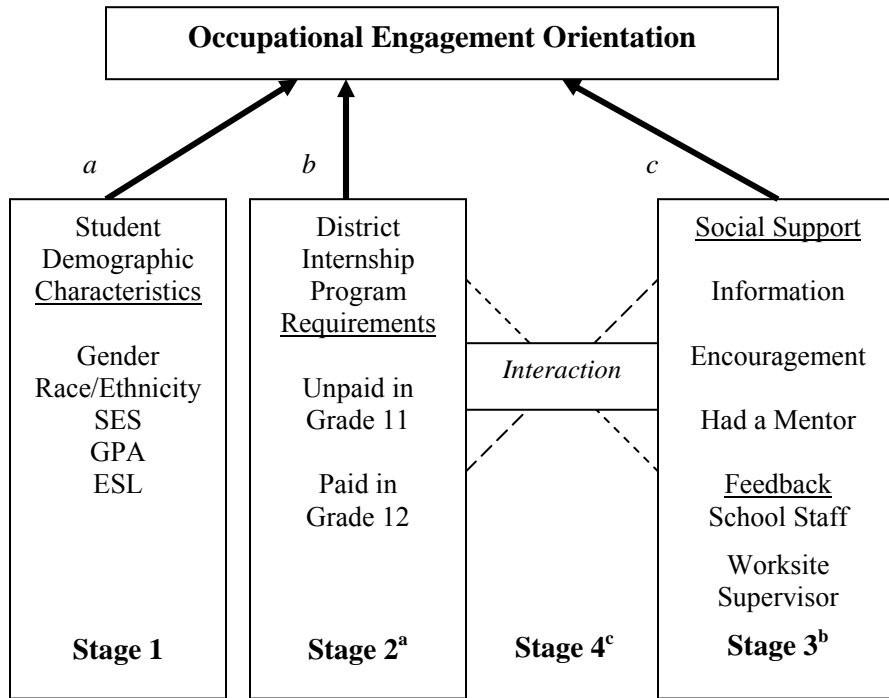
Data Collection

The surveys were administered by internship coordinators or classroom teachers at each of the district's 17 high schools in May, 2002. The district's Internship Program supervisors were instrumental in soliciting the assistance of building level internship coordinators to access the eligible 2,598 students. Sixty-seven percent of the senior class, representing 1,741 students, responded to the surveys. As each school was responsible for survey administration, some schools were more successful than others in obtaining student responses. Individual school response rates ranged from 19 % to 91%. The median response rate by school was 75%.

Data Analysis

The method of Ordinary Least Squares (OLS) was applied in a hierarchical regression to determine how much variance in the dependent variable was explained sequentially in the following four stages: (a) student demographic background characteristics, (b) unpaid and paid work-based internships in grades 11 and 12, (c) social support over and above the influence of the independent variables, and (d) the interaction that occurred between the program and social support variables (see Figure 2). This method examined the significance of the change in the Adjusted R^2, which indicated the extent of contribution to the variance in the dependent variable. This method also enabled examination of the specific relationship between each predictor variable and the dependent variable or the individual contribution to the

model. The hierarchical regression analysis was conducted using Statistical Packages for the Social Sciences (SPSS, 2000).

Occupational Engagement Orientation

a   *b*   *c*

| Student Demographic <u>Characteristics</u>

Gender
Race/Ethnicity
SES
GPA
ESL

Stage 1 | District Internship Program <u>Requirements</u>

Unpaid in Grade 11

Paid in Grade 12

Stage 2ᵃ | *Interaction*

Stage 4ᶜ | <u>Social Support</u>

Information

Encouragement

Had a Mentor

<u>Feedback</u>
School Staff

Worksite Supervisor

Stage 3ᵇ |

[a] Includes variables modeled in stage 1. [b] Includes variables modeled in stages 1 and 2. [c] Includes variables modeled in stages 1, 2, and 3.

Figure 2. Hierarchical multiple regression analysis of the theoretical model in stages.

In the first stage, various student demographic background characteristics were introduced that were likely to influence Internship Program outcomes independent of the work-based learning elements and social support. Gender, race/ethnicity, and speaking ESL were dummy variables coded '1' = Yes and '0' = No. Family SES (parents' education) and GPA were two continuous variables and each was standardized ($M = 1$, $SD = 0$).

In stage 2, unpaid and paid work-based internships in both grades 11 and 12 were introduced as two independent variables. The extent of their influence, independent of any controls for demographic background on high school seniors' occupational engagement orientations was the subject for this stage of analysis.

Independent variables also included two dummy variables, coded '1' = Yes and '0' = No, measuring respondents' completion of high school work-based internships (i.e., unpaid internships in grade 11, paid internships in grade 12) as intended by program guidelines.

The third stage of the analysis posited a moderating relationship of socially supportive interactions with adults, such as supervisors and mentors, in addition to the influence of programmatic elements. As one indicator of social support, *informational support* or career planning advice was constructed as a factor. The measure was standardized ($M = 0$, $SD = 1$). Its reliability or internal consistency, as measured by Cronbach's alpha, was .66. Although this variable may be questionable as it fell below the widely acceptable .70 (George & Mallery, 2006), it was retained in the model given its importance in the literature. Additional indicators of social support included one categorical variable that described whether students worked with the mentor, and one dummy variable that described the encouragement or *emotional support* received during the senior year. *Feedback support* was measured by two continuous variables, *school staff feedback* and *worksite supervisor feedback*, and standardized ($M = 0$, $SD = 1$).

As indicated by the crossed lines between the stage 2 and 3 variables, the model led to the hypothesis that it was possible seniors' participation in paid and unpaid internships would enhance or diminish the social support they experience. Thus, in the fourth stage, the interaction between the students' Internship Program experiences and social support were tested. One dependent variable measured district high school seniors' OEO. Occupational engagement orientations were constructed through factor analysis using principal components analysis with varimax rotation. The measure was standardized ($M = 0$, $SD = 1$). Its internal consistency reliability as measured by Cronbach's alpha was .87.

Findings

Demographic Characteristics

English as a Second Language was the only demographic characteristic in the first stage (Model 1) significantly related to seniors' OEO (see Table 2). Seniors' demographic background explained 6% in the proportion of variance in OEO in stage 1 (Model 1). Speaking English as a Second Language was indeed a barrier to achieving positive occupational engagement orientations at the end of high school. This did not improve even with opportunities to experience paid internships. If the school district had limited capacity to provide opportunities for interactions with supportive adults, it may have been inadequate in addressing students' language needs within their work-based learning experiences.

Table 2

Summary of Hierarchical Regression Analysis for Variables Predicting Seniors' OEO Scores (N = 1,279)

Variable	Model 1			Model 2			Model 3		
	B	$SE\ B$	β	B	$SE\ B$	β	B	$SE\ B$	β
Intercept	-0.32	0.11		-0.42	0.11		-0.57	0.12	
African American	0.03	0.07	0.02	0.01	0.12	0.01	0.01	0.07	0.00
Asian	0.18	0.14	0.05	0.14	0.07	0.04	0.10	0.14	0.03
Hispanic, Non-Black	0.06	0.15	0.01	0.06	0.14	0.01	-0.04	0.14	-0.01
Female gender	0.09	0.06	0.05	0.07	0.15	0.04	0.07	0.06	0.03
English as a Second Language	-0.26	0.12	-0.08*	-0.28	0.06	-0.08*	-0.23	0.12	-0.07*
Family SES[a]	0.05	0.04	0.05	0.06	0.12	0.04	0.08	0.04	0.07*
12th-grade GPA[a]	0.02	0.03	0.02	0.04	0.04	0.04	0.03	0.03	0.03
Unpaid internships in 11th-grade				0.39	0.06	0.19***	0.30	0.06	0.14***
Paid internships in 12th-grade				0.11	0.06	0.05	0.08	0.06	0.04
Information support[a]							0.07	0.03	0.07*
Encouragement during senior year							0.14	0.07	0.06*
Had a mentor							0.32	0.06	0.16***
Supervisor feedback[a]							0.14	0.03	0.14***
School staff feedback[a]							0.08	0.03	0.08*
Adjusted R^2	0.06			0.09			0.14		
F for change in R^2	7.82***			9.61***			14.07***		

[a]Standardized variable ($M = 1$, $SD = 0$)
*$p < .05$. **$p < .01$. ***$p < .001$.

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District Internship Program Requirements

The findings regarding the impact of district Internship Program requirements were mixed. In the second stage (Model 2), the unpaid internship in the 11th-grade was the only program requirement significantly related to OEO and had the largest effect. Additionally, ESL subject to the work-based learning requirements, also contributed to the dependent variable. The proportion of variance explained by OEO was 9%.

The varied results of paid versus unpaid internships were somewhat surprising and suggested potential problems in the Internship Program. Although unpaid internships did not increase seniors' OEO scores as social support measures, they were more beneficial than paid internships. Perhaps, participating in an internship without pay encouraged students to focus on pursuing work opportunities motivated by career interests rather than the extrinsic rewards of having a paid job. Highly motivated students may have sought quality learning opportunities and supportive adults instrumental in enhancing their future occupational engagement orientations.

The finding that paid internships were not significantly related to seniors' occupational engagement orientations was troubling, especially as paid internships directly preceded graduation and the formal pursuit of occupational plans. Paid internship experiences may not have been as personally meaningful for seniors. Although the employment may have been unrelated to their career plans, students may have considered after school jobs as paid internships. Consequently, these jobs may not have provided meaningful exploration of career pathways. Further, the internship coordinators may not have assisted seniors as expected in selecting suitable worksites consistent with their career goals and interests. Students would have benefited from selecting opportunities according to an individualized work-based learning plan, emphasizing specific activities and objectives to be accomplished at the worksite.

School staff members may not have known about seniors' paid internship activities and may have had few positive interactions. This would have decreased the likelihood they were providing appropriate feedback and making connections between students' work-based learning experiences and classroom learning. It was also alarming that students who completed the paid internship requirement in the 12th-grade and received feedback from school staff had lower OEO levels than those students who did not receive feedback. Too few opportunities may have existed for this supportive interaction at school.

Social Support

Stage 3 (Model 3) indicated the moderating influence of all social support measures on seniors' occupational engagement orientations. Having a mentor had the strongest effect on OEO and exceeded the contributions of performance feedback from worksite supervisors, school staff, and encouragement during the senior year.

Unpaid internships in the 11th-grade, family SES, and ESL, while controlling for social support, also contributed to OEO. The proportion of variance in OEO explained by this step was 15%. All forms of social support enhanced seniors' OEO scores over and above the influence of the programmatic components except unpaid internships. However, having a mentor was the only social support measure that exceeded unpaid internships in magnitude.

The cross-product interaction terms were entered into the regression analysis to test for significant interactions between the Internship Program requirements and the social support variables in the fourth stage (Model 4) of the analysis. Only one was found to be significant (see Table 3). The cross-product interaction occurred between students completing a paid internship in the 12th-grade and receiving performance feedback from school staff, which resulted in lower OEO scores.

Table 3

Summary of Stage 4 Hierarchical Regression Analysis for Variables and Cross-Product Interaction Terms Predicting Seniors' OEO Scores (N = 1,279)

	Model 4		
Variable	*B*	*SE B*	β
Intercept	-0.65	0.14	
African American	0.00	0.07	0.00
Asian	0.10	0.14	0.03
Hispanic, Non-Black	-0.02	0.14	-0.01
Female gender	0.06	0.06	0.03
English as a Second Language	-0.26	0.12	-0.08[*]
Family SES[a]	0.09	0.04	0.07[*]
12th-grade GPA[a]	0.03	0.03	0.03
Unpaid internships in 11th-grade	0.35	0.09	0.17[***]
Paid internships in 12th-grade	0.09	0.09	0.05
Information support[a]	-0.01	0.07	-0.01
Encouragement during senior year	0.16	0.14	0.07
Had a mentor	0.40	0.14	0.20[**]
Supervisor feedback[a]	0.22	0.08	0.22[**]
School staff feedback[a]	0.20	0.07	0.20[**]
*Staff feedback * Paid internships in the 12th -grade*	-0.20	0.07	-0.11[**]
Adjusted R^2	.15		
F for Change in R^2	1.44		

[a]Standardized variable (*M* = 1, *SD* = 0)
[*]*p* < .05. [**]*p* < .01. [***]*p* < .001.

Career and Technical Education Students

Because the sample was comprised of many students attending the district's career and technical education centers, an additional analysis using one-way Analysis of Variance (ANOVA) and crosstabulation was performed. It revealed statistically significant differences in the social support students received and in their occupational engagement orientations (see Table 4). The CTE students had higher OEO scores (M = .44) than other high school students (M = -.11). A greater proportion of career center students received mentoring (49% compared to 40%) and encouragement (34% compared to 28%). The CTE students also experienced more performance feedback (M = .21) from school staff than other high school students (M = -.06). Additionally, they experienced a more personalized, supportive learning environment than the regular comprehensive high school students and were better prepared for their occupational futures.

Table 4
Occupational Engagement Orientations and Social Support of Career Center Students

Variable	Career Center Students (n = 361)	Non-Career Students (n = 1,321)	Sig. Level
Dependent Variable			
Occupational Engagement Orientation [b]	.44	-.11	***
Social Support			
Had a mentor [a]	.49	.40	**
Received encouragement during senior year [a]	.34	.28	*
Received school staff feedback [b]	.21	-.06	***
Received worksite supervisor feedback [b]	.03	.00	ns

Note. ns = not significant
[a]Means computed using crosstabulation. [b]Standardized, M = 0, SD = 1.
[*]$p < .05$. [**]$p < .01$. [***]$p < .001$.

Conclusions and Implications

School districts such as the Midwestern City Schools should be concerned about the preparation of their students for future occupational engagement in the 21st Century. Current economic trends, labor market challenges of academically disengaged young adults, erosion of community social ties, and limited social resources among many students have increased youth risk for occupational disengagement. These trends afford American high schools tremendous opportunities and responsibilities for educating youth for adult occupational engagement especially

in diverse, and socially and economically disadvantaged school districts. To reduce these occupational disengagement risks, the Midwestern City Schools beset by low academic performance and low graduation rates required all of its high school students to complete 60 hours of work-based internships (i.e., paid, unpaid). The Class of 2002 became the first senior class in the school district to experience the Internship Program and to graduate with this requirement.

First, this study examined how much student demographic characteristics (i.e., gender, ethnicity, SES, GPA, English as a Second Language) accounted for seniors' occupational engagement orientations. No other demographic characteristic was significantly related to seniors' OEO except English as a Second Language. These students experienced lower OEO levels, which suggests that the Internship Program failed to reduce the occupational disengagement risks likely to follow them well into adulthood. Limited English proficiency was associated with difficulties for labor market entry and access (Sum et al., 2000); this issue will increasingly become more persistent as the population continues to rise.

Second, this study investigated the relative influences of seniors' participation in paid and unpaid internships and the social support (i.e., information, encouragement, mentoring, feedback) they received on their occupational engagement orientations at the end of high school. Although one hypothesis predicted that both paid and unpaid requirements would lead to significantly higher OEO levels, only the unpaid internships produced these results. This may indicate several Internship Program deficiencies, from community partners offering too few paid internships to inadequate adult supervision in the selection of internship opportunities. Additionally, students received no preparation or training by the school district that would help them to satisfy the demands of a paid internship. Further, community partners may have considered unpaid internships more preferable. Also, unpaid internships may have attracted highly motivated students who needed minimal district supervision and assistance. This may have been problematic for many economically disadvantaged students whose families needed the extra income from paid internship opportunities. These families already have limited transportation and few social resources to assist students to choose more stimulating paid work environments relevant to their career plans. Therefore, the Internship Program was limited in its efficacy to reduce the occupational disengagement risks for which it was intended.

Third, the social support experienced by seniors during their Internship Program experiences accounted for the largest proportion of the variance in OEO without the influence of work-based learning and student demographic characteristics. This study underscores the moderating effect of social support, particularly having a mentor, in enhancing the efficacy of work-based learning (Bailey et al., 2004). Despite the value-added benefits of social support, the Midwestern City Schools did not purposely structure or plan the Internship Program for this to happen equitably. As a result, many students did not receive this essential

support. Without more school district intervention and systemic planning to increase social support for students in work-based learning, occupational disengagement risks will likely remain despite the noble intentions of the Internship Program.

Schools have long been criticized for promoting an impersonalized, departmentalized, and evaluative atmosphere inconsistent with individual youth needs and capacities (Cotterell, 1996; Pianta et al., 2002). The inadequate response of schools to youth developmental needs may lead to a "new form of alienation" characterized by "lack of purpose, lack of direction, and difficulties forming career identities, and future commitments" (Conger & Peterson, 1984, p. 607). High schools, as key socializing institutions in American society, have the potential to enhance transition to socially productive adulthood and reinforce disengagement barriers (Coleman, 1993; Furstenberg, 2000). Implementation of mandatory work-based learning requirements at the school district level appears to do little to improve students' future occupational engagement orientations without specific attention to improving systems of social support within and beyond the school walls.

Recommendations

There are some limitations that may affect the generalizability of the findings to all high school students in the Midwestern Internship Program and for other school districts that require work-based learning. The findings were limited by the self-reported nature of the instrument used. Additionally, the survey was administered only in English, therefore, ESL students may have encountered barriers in their responses. Further, 23% of the senior class did not respond to the surveys. Also, senior attendance rates declined rapidly in May, which created further difficulties for administering the surveys and follow-up with students. May was chosen by the school district as the time frame to administer the survey with the assumption that most seniors would have completed all requirements by the end of the school year, thereby, yielding the most complete information about their cumulative experiences. Of the 1,741 respondents, only 602 provided all the responses to the items on the survey. To determine whether the missing data were randomly distributed, the differences between the "missing" and "non-missing" student groups on each measure were tested using one-way ANOVA for continuous variables and cross-tabulation for categorical variables. Although the data were not randomly distributed, the decision was made to use pairwise rather than listwise deletion. However, it risked entering significant bias in the analyses and may have diminished generalizability to the Class of 2002. Consequently, listwise deletion reduced the sample size ($n = 602$) by nearly two-thirds.

Several recommendations are offered to increase the efficacy of internship programs. These recommendations emphasize improving school district capacity to provide equitable student access to quality work-based learning opportunities and

supportive adults. Several areas are highlighted for further school district inquiry and educational research.

The school district should investigate the barriers encountered by its students speaking English as a Second Language. For example, these barriers may exist in identifying and selecting meaningful internship opportunities within the community. Too few internship opportunities may exist for ESL students. More culturally and linguistically diverse community partners are likely needed to provide work-based learning opportunities for students. Business community leaders and Chambers of Commerce should support recruiting efforts with incentives. Additionally, internship coordinators may need more training and support for ESL students. Increased collaboration between internship coordinators and district ESL staff is likely necessary.

Further inquiry is needed to determine why paid internships are less beneficial to seniors' occupational engagement orientations than unpaid internships. To ensure that students select quality paid internships, the practices of building-level internship coordinators in school districts should be further examined. Specifically, school districts should examine how coordinators supervise students in selecting internship opportunities according to individualized career plans and monitor students' completion of program requirements. District polices are needed that require students and internship coordinators to design and follow individualized work-based learning plans. These plans should address specific internship activities and objectives as preparation for the tasks and skills that are required. Students should be prepared by the district for the work they are expected to perform in the internships.

School personnel who are knowledgeable about work settings and carefully plan and monitor student activities are vital to improving the efficacy of work-based learning and the mapping of future career pathways for students (Brown, 2001; Chadd & Anderson, 2005). Efforts aimed at improving the capacity of internship coordinators to provide students more personalized attention and supervision must include increasing the number of properly trained and licensed internship coordinators in high schools. However, this option may be challenging in financially struggling urban districts experiencing academic crises. Students need more personalized interaction with supportive adult professionals or faculty beyond internship coordinators within high schools. Additionally, systems should be designed that enable faculty to increase their awareness of internship activities. Students could be assigned to faculty-student advisory committees (Steinberg, 1998) to regularly review and discuss internship experiences and occupational goals within a structured setting and time during the school day. School districts are advised to further investigate the social support that students receive in their career centers and high schools. Differences in internship selection, monitoring, and mentoring practices may exist that are potentially transferable among schools.

Schools should establish formal mentoring programs with local area businesses and their employees to supplement school faculty advisory programs.

Students in the 11th- and 12th-grades also need release time from the regular school day to pursue these activities, formal mentoring programs, and quality learning experiences at work sites, limited by only evening and weekend availability. Schools must forge stronger ties with caring, socially supportive adults to adequately prepare students for their socially and economically productive futures (Decker, Decker, & Brown, 2007; Perkins et al., 2003). Districts should examine how their high schools cultivate relationships with adults who may become internship mentors. Specifically, school districts need to analyze the skills, orientations, and practices of internship coordinators, teachers, and district administrators. This can result in building and sustaining community partnerships through which quality worksites and mentors may be more readily available to students. However, to further facilitate equitable student access to social support, these structures, systems, and strategies require formal district policy and should not be left to occur serendipitously. Partnerships should be in place before a school district implements mandatory work-based learning.

Greater understanding is needed among policymakers, community members, educational leaders, and researchers about the role of social support in educating high school students for future occupational engagement in socially and economically disadvantaged contexts. Contemporary education policy and accountability pressures may cause high schools and school districts to divert too much attention and resources away from this important social responsibility. The inherent value of socially supportive systems within more purposeful, structured work-based learning programs should not be a lower priority than preparation for standardized testing in the education of high school students. For high school seniors in large, urban school districts such as Midwestern City Schools, equitable access to socially supportive systems throughout work-based learning enhances future occupational engagement orientations. Midwestern students are likely not alone in this need.

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