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AUTHOR Ficklen, Myra S.

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ABSTRACT

A study examined public and private educational partnerships in the Washington, District of Columbia area. To gather data for the project, researchers conducted five case studies that focused on business investment in newly developed career programs in five District of Columbia high schools. During the study, researchers compared the reasons of each of the five sponsors for participating in educational partnerships. Each of the sponsors involved indicated that social responsibility goals were important in their decision to participate in such a partnership; however, other motives for participation that were more closely tied to the individual businesses were also arrarent. Included among these were public relations, investment in human capital, and perpetuation of support for the capitalist system. Despite the similarities, the collaborative arrangements examined differed widely according to program objectives and how those involved viewed their roles. In the cases of the five programs examined, corporate involvement varied from attendance at quarterly meetings to weekly contact with program personnel. Although the researchers did not find any one model that appeared appropriate for all partnerships, even within the school system, they nevertheless felt that private sector interests can be compatible with the broader educational goals and objectives of school systems. (MN)



PUBLIC/PRIVATE PARTNERSHIPS IN THE D.C. SCHOOLS

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by

Myra S. Ficklen

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Educational Testing Service Division of Education Policy Research and Services

April 1984

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ABSTRACT

Business investment in public education is not new. Nonetheless, in the 1980's we are witnessing increased interest and greater involvement of the private sector. Unlike past efforts, endeavors in the 80's emphasize mutual gain. Because public/private partnership programs have the potential for changing the relationship between businesses and the schools and the traditional ways in which education and work are linked, by examining the motives of businesses in the collaboration, we can better understand both the potentials and limits of such relationships.

Through case studies of the newly developed career programs in five D.C. high schools, we examined issues surrounding private investment in public education. We found differences among businesses in their reasons for collaboration. All sponsors indicated that social responsibility goals are important, but other motives more closely tied to individual goals of the business are also present. These include public relations, investment in human capital, and perpetuation of the support for the capitalist system. We also found that interest of key individuals in the private and public sector is an important element in the success of these programs. Despite their similarities, collaborative arrangements between the public and private sector differ according to program objectives and how individuals view their roles. The degree of actual corporate involvement varies from attendance at quarterly meetings to weekly contact with program personnel. Thus there does not appear to be one model appropriate for all partnerships, even within the same school system. But it appears from this study that private sector interests, based on individual goals, can be compatible with the broader educational objectives of the school system.



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INTRODUCTION

Business investment in public education is not new, but the 1980's are seeing increased interest and greater involvement than in the past, with an emphasis on the concept of mutual gain. Schools faced with declining resources and low credibility to educate students in areas useful to the corporate world are looking for ways to improve education, while corporate leadership is concerned about the quality and relevance of what is taught in the classroom (Timpane, 1982). Both are exploring arrangements that emphasize mutual needs, implying a partnership and sharing of responsibility for educating students.

Business involvement in public education has taken many forms: donation of equipment and materials; internship experiences; curriculum development; and advisory services. Some activities require close association between the business and the schools, while others represent little more involvement than a charitable donation. The degree of involvement in the school varies according to the type of activity, and can range from occasional communication to a continuing collaboration (Wise, 1981). Partnership programs imply collaboration and a linkage between the public and private sectors.

Issues surrounding business/school partnerships are complex. Since elementary and secondary education more closely resemble a public, rather than a private good, and one that is provided by government, the question of incentives for businesses to invest in such programs arises. Theoretically, businesses have a disincentive, since education will be offered anyway. Furthermore, there is the free rider problem; another company may benefit directly from this investment by hiring graduates from a particular program. But because education is often viewed as central to issues of an urban and technological society and as crucial to the manpower supply, businesses have a vested interest in the quality of public education. In a survey of forty-four high level executives, all but one indicated that business has a role in the education of young people (Lusterman and Gorlin, 1980). Because the corporation's primary objective is longterm profit growth, business investment in education must relate in some way to its mission (McKie, 1974). If too great a portion of the benefits are collective or external, a corporation has less incentive to invest (Thoreen, 1981). To the extent that business will benefit from better trained employees, the investment may be justified on profitability grounds. But to the extent that business does not capture its investment other incentives are necessary.

Existing literature indicates that businesses contribute to public education for many different reasons which affect the type of activity and degree of involvement. Such reasons may reflect the business role of good citizen and promotion of the free enterprise system, or they may be more closely related to training objectives (Wise, 1981). In order to understand the nature of collaboration it is important to examine the underlying motives of businesses.



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Where collaboration has taken place between schools and businesses, there are usually multiple motives, ranging from those that are primarily self-serving and image building to those that encompass aspects of social responsibility (Timpane, 1982). In a recent study of collaborative programs in urban schools, Michael Timpane (1982) found that motives of corporations range from the most noble "impulse to strengthen the democratic free enterprise system to the narrowly self-interested desire to gain public relations advantages" (Timpane, 1982, p. 2). He identified three components to the corporate interest in education:

- o an historic interest in education as the fundamental social institution to develop skilled and productive citizens.
- o an interest in the local community, implying both a response to local crises and problems and the importance of maintaining good will in the community, and
- o an interest in the education and training of prospective employees from the community.

These broad interests underlie the individual objectives of a particular business' involvement in education. Each corporation may have particular reasons for collaboration in a project, which will vary depending on the type of business and corporate goals.

From the perspective of the school system collaborative programs represent a departure from the traditional curriculum and the involvement of outside, non-educators in planning and implementing education programs. Such partnerships may also represent a departure from traditional attitudes of educators, who often question the self-serving motives of businesses (Burt and Lessinger, 1970).

Many cities have experimented with career-focused programs and activities involving business. In Dallas, for example, there is a business task force which is actively involved in career education in the public schools. Collaborative programs resulting from that task force include Adopt-a-School, a junior achievement program, a program to teach economics to high school freshmen and sophomores, and a gifted and talented program, which allows students to work with corporate executives. In Chicago, a consortium of the city's top business leaders has established career development centers, which provide on-site business experience for credit to high school students. And other cities including Houston, Minneapolis, Cincinnati, Pittsburgh, Denver, and Boston have established partnership projects based on various models of collaboration (Chaffee, 1980).

Some of the programs using a career-focused magnet school developed out of court-ordered desegregation (National Urban Coalition, 1980) and represent a community response to many of the problems of the 1960's. Philadelphia, Dallas, Detroit, Los Angeles and many other cities have developed such programs. In every case, educators took the initiative



to tap the community's resources and to identify mutual areas of wants and needs (National Urban Coalition, 1980).

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The current interest in collaborative programs is also part of the growing trend away from exclusive government provision of public services (Savas, 1983). A partnership between the public and private sector provides a middle ground between exclusively public and purely private provision of education. Rather than merely running its own training program, with more narrow, industry specific skills training, a business collaborates with the schools in developing a broader educational program, which meets its requirements for generic skills. This arrangement offers the advantage of utilizing existing facilities and resources of the established public education system, while at the same time providing greater choice to parents and students. It also improves the link between education and work.

Despite the proliferation of collaborative programs, there is still some skepticism about the motives of business and fear of their role in influencing the education program (Herty, 1979; Ozman, 1981). But few detailed studies exist which clarify the expectations and motives of business. Recent studies (Timpane, 1982; Levine and Doyle, 1982) provide an overview of business interests but do not provide a detailed analysis of any one program nor explore the incentives and expectations of the private sector.

Understanding the motives of businesses in public/private partnerships is an important step in determining factors which facilitate or hinder such collaboration. These factors will affect the type of program, the role of business in educating students, and the quality of educational programs available. The ability of schools to work with corporate sponsors and develop education programs consistent with corporate goals may be an important factor in main: aining a strong public school system, particularly in urban areas. As other options for greater choice in education are debated (e.g., vouchers, tuition tax credits), providing attractive education options within the existing public system has the potential of strengthening the public schools.

The newly developed career programs in five high schools in the District of Columbia provided an opportunity to examine the role of Although the programs are too recent business in partnership programs. to examine educational outcomes, their recency enabled a focus on the collaborative process involved and the reasons for corporate investment. There are five different programs, each with a different sponsor, thus allowing a comparison of programs. The research focused on issues of corporate motives and degree of involvement in the programs as well as factors affecting the collaboration. We examined the degree to which businesses and schools were partners in the programs and the factors that facilitated or hindered such relationships. A central concern was 4 to examine the extent to which corporate and educational goals are compatible and the potentials and limitations of such collaboration. In particular, we asked: -4-

- o Why are businesses involved in partnership programs? What are their expectations for these programs?
- o Can such programs avoid the narrow self-interest of their collaborators to serve the needs of students and society?
- o What factors facilitate or hinder such relationships?

Method.

To examine these issues, we conducted interviews with individuals in the private sector who were responsible for the on-going collaboration. In each case, we selected the private sector organization that was identified by the superintendent's office as the lead organization in developing the program. Interviews ranged in length from thirty minutes to two hours. We interviewed individuals with responsibility for the partnership programs in the following organizations:

The George Washington University Medical Center
The George Washington University, School of Allied Health
Administrative & Account Services, Goldberg/Marchesano
Community Relations and Education, Potomac Electric and Power
Company (PEPCO)
The Capitol Hilton Hotel
Department of Human Resources, American Security Bank
GMI Engineering and Management Institute
Office of Public Relations, General Motors, Washington, D.C. Office
First American Bank

We also visited the five program sites:

Dunbar High School
Eastern High School
Penn Center and McKinley High School
Roosevelt High School and Burdick Center
Woodson High School

The site visits took place during the school day, so we were able to observe classes in progress and the interaction of students and teachers. All program coordinators except the Director of the Communications Program also teach. They were able to provide information about the collaborative process, the educational content of the program, and the characteristics of participating students. At the school sites we interviewed the following individuals:

Chairman, Department of Journalism, Penn Center
Principal, Eastern High School
Coordinator, Preengineering Program, Dunbar High School
Coordinator, Business and Finance Program, Woodson High School
Coordinator, Communications Program, Penn Center/McKinley High
School
Coordinator, Health Careers, Eastern High School
Coordinator, Hotel Management and Culinary Arts, Roosevelt High
School/Burdick Center

In the Superintendent's Office, we met with Pete Weaver, Special Assistant to the Superintendent. Weaver functions as the liaison with the corporate sector and has been involved with the programs from the beginning. In addition, we reviewed planning documents from the schools and the Superintendent's Office, newspaper and journal articles, and congressional testimony describing the programs. Our emphasis was on the corporate involvement, but inclusion of information from school personnel provided another source of information for a description of the program.

THE D.C. EXPERIENCE

Development of the Programs

When Superintendent Floretta McKenzie came to office in 1981, one of her goals was to improve public education by involving the private sector in the educational process, thereby creating new links between education and work. McKenzie's first step in establishing the collaboration was to hire an individual for corporate relations, and to involve individuals from business and such groups as the Washington Board of Trade and Chamber of Commerce in improving the schools. Pete Weaver, who has a law degree and has worked in the private sector, was hired to provide the link with the corporate world. Additionally, an IBM executive on loan to the Superintendent's Office served as a key contact person for the corporate sector. Weaver began brainstorming with individuals in the corporate sector on how to match the needs of schools and business. The concept of career high schools, focusing on the projected economic growth areas for D.C., emerged. The emphasis was on mutual gains rather than philanthropy; businesses would become partners and be involved in the core education of students.

The Superintendent had three major goals behind development of these partnership programs: (1) to improve public education; (2) to increase the choices for students; and (3) to provide a better melding of academic and career programs. The programs would focus on both academic skills and employability of students.

Once the concept was established, career areas identified from various economic reports as having high-growth potential for D.C. were considered. Concommitantly, businesses in these fields, particularly those with ties to education, were contacted. In making the initial contacts, Weaver indicated there were two barriers to overcome. First, there was the past history of the D.C. schools, which cast doubt on their credibility to deliver. The second barrier was to make businesses understand the concept of a partnership, emphasizing investment and mutual gains, not philanthropy. The core, national businesses were contacted first to be the pacesetters, with the hope that smaller, local businesses would follow suit. Once national companies had committed support, local businesses with ties to education or with training needs were contacted. The approach varied from business to business, with much of the difference depending on the individuals involved, the type of business and the corporate structure. However, in every case, a top executive was involved. In some organizations it was the president; in others, a vice-president, but in every case a person with authority to act and make commitments.

As word about the programs spread, other businesses wanted to become involved. Weaver said, "My job became easier when they started coming to me and I no longer had to contact businesses cold." Additionally, favorable publicity increased the interest in these programs.



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To select the schools, the Superintendent solicited proposals from the schools outlining their plane in a selected career area. Special attention was given to what already existed in terms of facilities, programs and personnel, as well as to the leadership abilities of the principals. The selection of programs and sites took place in late spring and early summer 1982 and schools began enrolling students in fall 1982.

Each program has one or more corporations as the primary sponsor, with other organizations contributing time, personnel and resources to the project. These corporate sponsors assist in planning the curriculum, acting as liaison with other businesses in the same field, establishing internships and employment opportunities, providing technical support and equipment, and in some cases, providing classroom instruction. A Business Advisory Council, consisting of both corporate and school representatives, works with the program coordinator at the school to provide advice and assistance. However there is no overall, coordinating mechanism for the corporate sponsors to come together and share experiences. Most individuals in the private sector with whom we talked knew little or nothing about the other career high schools and their corporate sponsorship. Program coordinators at the schools have been able to meet together once a month through the Fellows program sponsored by the Institute for Educational Leadership and most viewed this as useful. The Advisory Council at each school is responsible for guiding the program, although the degree of corporate involvement and the on-going activities of the Council vary from program to program. This involvement of individuals from the corporate sector in the substance of the educational process differentiates these programs from other forms of corporate philanthropy. Businesses have an investment in the success of these programs; they share accountability for educating students.

The overall concept of the career high school is innovative in its approach to career training. Rather than dividing the career training and academic curriculum, these programs integrate the two components, so upon graduation from high school students can either enter a college or university curriculum or seek employment in his/her area of training. In actual practice, the programs differ in the degree to which they emphasize training or academic skills, and consequently, the type of students they serve. In all programs the school day is longer than the usual D.C. school day, and some programs will develop summer internships, so that student participation will continue year round. The programs developed through the partnerships are:

- o Pre-engineering at Dunbar High School, sponsored by General Motors, IBM, Potomac Electric and Power Company (PEPCO) and Sloan Foundation
- o Business and Finance at Woodson High School, sponsored by D.C. Bankers Association and Blue Cross/Blue Shield



- o Communications at McKinley Senior High School/Penn Center, sponsored by Goldberg/Marchesano and Associates
- o Health Careers at Eastern Senior High School/M.M. Washington Career Center sponsored by George Washington University Medical Center, Capitol Hill Hospital, D.C. General Hospital, Howard University Hospital
- o Hotel Management and Culinary Arts at Roosevelt Senior High School/Burdick Career Center, sponsored by Capital Hilton Hotel & Culinary Institute of America, Hotel Industry, Private Industry Council

While there are similarities in programs, there are differences in the reasons behind corporate investment, the degree of corporate involvement, and the collaboration process. Each school has particular strengths and weaknesses which influenced the development of the program and the relationships with sponsors.

Pre-engineering Program - Dunbar High School

Dunbar High School was chosen as the site for the pre-engineering program because of its central location and its traditional emphasis on academics. The program is modeled on the engineering high school in Houston and is a four-year program aimed at high ability students, selected on the basis of grades, teacher recommendations, and expressed student interest. In addition to an academic program involving four years of science and math, computer programming and special assignments relating to technical topics, students participate in laboratory experiments, internships and field trips, which provie an overview of engineering fields.

The collaboration process began when Superintendent McKenzie approached General Motors' vice president for personnel with the idea. He liked the idea and asked Robert Morris, an engineering professor at GMI Engineering and Management Institute to work with the Superintendent's office. GMI Engineering and Management Institute (formerly GMI) is a fully accredited postsecondary institution, granting Bachelor degrees in engineering and management fields. The school is now independent, but at the beginning of the collaboration it was a part of General Motors. GM gave Morris complete freedom in developing the program and in the amount of time and personnel committed.

Development of the program appears to have proceeded smoothly, with good collaboration between the public and private sectors. The process was facilitated by an existing model in Houston for the curriculum and general agreement on the target population and educational goals. General Motors took the lead in curriculum development, reviewing course materials and providing internship experiences for Dunbar teachers. General Motors Institute teachers came to Washington to work with faculty in refining courses, particularly in adding laboratory

experiments, exercises and problems that are engineering focused. Four Dunbar teachers spent four weeks during the summer of 1982 at GMI taking courses and visiting nearby assembly plants. This process enabled a smooth start for the program in fall 1982.

There has been little, if any, resistance to this program at Dumber High School. The teachers and students were selected on the basis of "excellence" and faculty saw this as an opportunity to teach bright kids. Many of the students come from Dean's lists and gifted and talented programs and score in the top percentiles in math. Furthermore, the program does not represent a great departure from a regular academic program except that problems and course content are relevant to engineering. Students interested in other fields requiring strong math and science may also participate in the program. The one big adjustment has been that the program starts in the 9th grade, whereas Dunbar's regular program begins in the 10th. Teachers have had to adjust to the shorter attention span and the lower maturity level of these students. There was, and continues to be, some resistance from the junior high schools to the program because they do not want to lose students, particularly the brightest students. Test scores are published by school, and loss of many bright students may affect the average score. Additionally resources are determined by enrollment, so some junior high schools could lose staff if too many students are recruited away.

Students for the program are selected on the basis of grades, scores on the Differential Aptitude Test taken in the 8th grade, and a personal interview. In the first year (1982-83 academic year) 50 students were selected of whom 34 remained through the first year, and 25 returned for the second year. Several students moved and others did not maintain the required 2.0 average and/or opted out of the more rigorous curriculum and longer school day. In the 1982-83 academic year 78 students began the program. Staff believe the students now in the program have a strong commitment to it and the attrition rate will decline. Additionally, staff have revised courses based on last year's experience. This should also improve student retention.

The partnership between the public and private sectors appears to be working very smoothly, with both sides able to take the time to communicate. The Business Advisory Council meets four times a year, but there is ongoing contact with the sponsors between meetings. The collaboration with PEPCO is enhanced by the existence of a Special Office of Education and Community Affairs at PEPCO. Responsibility for this program is not just an add-on to other jobs, but constitutes a major portion of one staff member. The program coordinator at Dunbar High School, Judith Richardson, has involved the sponsors in the activities of the program, yet maintains overall program direction. In addition, Morris at GMI provides advice about the program and supplies names of speakers and suggestions for field trips.

Both corporate sponsors and the school see the private sector role as advising and providing resources. The private sector has provided computers and laboratory equipment, as well as personnel and advice. At the last meeting of the Business Advisory Council, Ms. Richardson presented a progress report and her plans for the future, along with a list of needed resources. Instead of asking for equipment, Ms. Richardson outlined the needs, and corporate sponsors responded with advice and promises of equipment. IBM and PEPCO have provided equipment, personnel, field trips and internship experiences. Additionally, the program coordinator has arranged for students to work in engineering labs at places such a the Naval Observatory and Howard University. Sponsors have supported field trips and guest lecturers to provide enrichment experiences for students.

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The engineering program involves both local and national sponsors. General Motors and PEPCO have been most active. While PEPCO has a history of involvement with the D.C. Schools, General Motors' involvement is new. Yet the two companies appear to have similar reasons for their investment. Both expressed the importance of training quality engineers, particularly minorities, although neither expected to hire from the program. Both companies considered this a long-term investment in human capital, not a short-term training project, so the payback may not be realized directly. The goal is to prepare students to enter a college-level engineering program and expose them to many different areas of engineering.

In addition to human capital investment both companies had motives more closely linked to corporate responsibility or, for PEPCO, community relations. General Motors stated that social responsibility is an important metivator in their philanthropic efforts. GM's corporate philosophy encompasses the obligation to improve the well-being of citizens. The company has a history of supporting projects in three major areas: cancer research; education; and the United Fund. GM and GMI have placed a high priority on affirmative action and view education and training as a critical element in this process. GMI has a high percentage of minority engineering students, about 18-20 percent.

PEPCO stressed its responsibility as a major employer in the area. The company maintains an eight-person office for Education and Community Affairs, and encourages company-wide participation in projects by providing release time to employees and through special service awards. Lorraine Drew, a former science teacher and now director of the Office of Community Relations and Education said, "We believe in good corporate citizenship, especially projects to youth. We are a large employer in this area and we try to give something back to the community." This project was added to PEPCO's existing commitments to the D.C. schools. These activities include teacher training workshops on energy, tours of facilities, junior achievement sponsorship, technical assistance on computer programs, and classroom presentations about electricity.



While there is no distrust of business on the part of the school program coordinator, she is aware of a private sector agenda. "I think the businesses originally got involved as a way to help fulfill their plans for minority recruitment, but once they see the kids' excitement in working on computers or talk with them, I think they change and become more committed to the program."

Business and Finance - Woodson High School

The business and finance program at Woodson High School consists of two strands: a business program sponsored by Blue Cross/Blue Shield, trains students for entry level office work; and, a program in finance, sponsored by the D.C. Bankers Association, simed at high achieving college bound students. This second program is designed to provide students with an understanding of how our economic system functions. The finance strand begins in the 10th grade, and provides a college preparatory academic curriculum, including four years of math and English, two years of a foreign language, three years of science, including physics, history, supplemental coursework in the economic system, and computer courses. Special attention is given to communication skills and business-related assignments. To be admitted to the program a student must have a B average or better, the recommendation of three teachers and an interview with program personnel. The business strand also contains a strong academic component, but requires only three years of math, one year of a foreign language, and no physics. Students with a C average, who are entering 9th grade, are eligible for this program. The supplementary courses are designed as preparation for entry level jobs in business offices. Both strands include guest lecturers, internship experiences, and field trips. Two days per week students are required to dress as if going on a job interview.

The business program is now in its second year, while the finance program just began accepting students in fall 1983. Both programs are still developing and revising courses. The program coordinator indicated that recruitment in 1982 was a problem because staff began in late summer. Subsequently, staff has placed additional efforts on recruitment by making presentations at junior high schools and sending brochures to parents and students. For the finance strand, students are identified from the gifted and talented program and Dean's lists to receive additional information. This year the finance program enrolled 24 students and the business program 38.

The collaboration process was hindered by an initial misunderstanding between the public and private sectors. When the D.C. Bankers Association became involved in the project, largely through the initiative of its president, Jack Ritchie, chief executive officer of First American Bank, their commitment was to collaborate in a program which would include a strong academic curriculum and instruction about the free enterprise system, aimed at college bound, high ability students. But the program which began in fall 1982, was largely

influenced by Blue Cross/Blue Shield, and emphasized office procedures and training for entry level jobs. The Bankers saw their goals as different from Blue Cross/Blue Shield. They wanted input into the curriculum. Expressing displeasure at the status of the program in fall 1982, representatives of the D.C. Bankers Association requested a meeting with the Superintendent. As a representative said, "We wanted in or we wanted out. I made it very clear we did not want to be involved in a slipshod program." The Bankers gave the school system sixty days to clarify questions of recruitment, curriculum, and sponsorship. Teaching staff were advised to visit a similar program in Atlanta at the Harper School for Finance.

Within sixty days the school had developed a plan and course outline for the finance program amenable to the Bankers, with the Blue Cross/Blue Shield program designated as a separate strand. Once the bankers made clear the type of program they wanted and the school outlined a plan, program development proceeded smoothly.

The D. C. Bankers Association has played a very active role in development of the finance program, usually taking the initiative in course development and enrichment experiences for students or teachers. The Bankers Association has helped in textbook selection, review of courses, development of course materials, field trips and internships for teachers and students. Members of the Business Advisory Council developed a case study for one course. Students wil conduct research on the problem and make a presentation to the members of the Avisory Council. This case study was built around a hypothetical situation relevant to D.C. While the collaboration appears to be working, a banking representative indicated that every meeting and every activity has been initiated by the corporate sponsors and not by the school. "We're always prodding. We want to contribute, but the school needs to communicate with us and keep us informed. No one seems to understand the ground rules."

From the school's point of view, the program collaboration and curriculum development went smoothly and the two-track program was planned from the start. Although there was some initial resistance to the program by teachers within the school, the support of the principal and central administration and the chairperson of business education, have helped overcome this reluctance. The program coordinator believes the sponsors have been helpful in program development and enrichment but do not believe the corporate sponsors have exerted too much influence. School personnel believes the major role of business is to assist in providing insight about important skill areas to develop and the kind of worker they are looking for. This past year English courses were revised in accordance with sponsors' advice, to reflect a focus on writing and oral presentation skills, with special assignments from business journals. So far, business has had little input into regular academic courses, except to provide advice on the important skills to develop.

A second problem was a hiatus of several months in Goldberg/Marchesano's collaboration due to a change in personnel. This left the program without ongoing contact with its major sponsor. And finally, the program operates in two sites: McKinley High School for the academic courses and Penn Center for the "hands on" career courses. Scheduling and coordination have been difficult. Students interested in the career courses see little need for the academic component and academically oriented students have little interest in the career aspects. Consequently, recruitment from other parts of the city has been difficult. Few students want to travel the extra distance for this program. Despite these barriers, students, teachers and corporate sponsors are working together and are optimistic about the future of the program. Recently, a teacher was designated to coordinate internships, and additional corporate sponsors have expressed interest in the program.

The primary sponsor, Goldberg/Marchesano, became involved through the interest of its president Carol Marchesano, who, after learning of the public/private partnership project, contacted the Superintendent's office. During the initial development of the program, a staff member at Goldberg/Marchesano provided advice on curriculum development and also solicited others to serve on the Business Advisory Council. The Council meets quarterly and has assisted in program review, providing resources, and developing internship experiences for teachers and students. There has been little contact between the public and private sectors, aside from the Council meetings. A major reason appears to be lack of clear expectations about the role of business. One teacher mentioned several barriers to a more extensive collaboration: the time involved for both sides; the unrealistic expectations business has for student performance; and the fact that schools do not always know what they want.

Goldberg/Marchesano sees its major role as providing a real world element to the program. Although staff have worked with students on some specific projects, such as a brochure about the career programs, the actual corporate involvement in the project, has been minimal. For the most part corporate sponsors have responded to requests, rather than initiating program ideas. Yet they have a clear idea of what the corporate role should be. Their concept of partnership is one where the school system provides the basics, and they provide the extras. One corporate representative was disturbed that the school system had not provided the books for the library to supplement the texts. As the representative indicated:

We want to make a real contribution, to add a real world experience to the program. But our role is not to provide books. If the D.C. schools have a program, then they should provide the basics and that includes books.



Corporate sponsors at Goldberg/Marchesano believe students can learn a great deal through informal visits to a workplace to get a flavor for the business. There is an open invitation for both students and teachers to come by the ad agency and spend a few hours observing.

Although the school personnel think the real world element is important, there is a difference in perspective between the public and private sectors. For example, teachers in the communications program designed a course in scriptwriting. When Goldberg/Marchesano reviewed the curriculum they indicated the course title should be changed, since scriptwriting is not a viable career field. Goldberg/Marchesano indicated there was a need for good copywriters and graphic artists and recommended the course be geared to more realistic career goals. The school, however, saw the course differently. A teacher explained:

We developed a course in dramatic writing. We felt the discipline was useful and helpful in developing general skills, even though we don't expect our students to get jobs in it. Goldberg/Marchesano felt it was a waste of time. ... Industry comes from a limited perspective. They look for more specific skills. This limits the choice of kids. They (Goldberg/Marchesano) want a strong advertising program ... we stress more general skills, good writing, so kids can choose careers later.

Goldberg/Marchesano had several reasons for investment in this program. A sense of community responsibility was clearly present. Having grown from a small agency to a major advertiser in the D.C. area, Goldberg/Marchesano wanted to invest in a project to give something back to the community. "We wanted to show we were grown-up, and our president had an interest in education." This investment was also related to corporate image. Goldberg/Marchesano ran a large ad describing the programs and inviting additional corporate sponsors to join. They stated that they had cancelled their lavish Christmas party and instead donated the \$20,000 it would have cost to the development of the communications curriculum. Although the involvement of business in this project has been less than in the others, there is a strong corporate commitment and interest. The sponsor is particularly interested in exposing students to viable careers and helping them understand what the working world is like. But part of the problem is learning how best to contribute. Goldberg/Marchesano sees its role as contributing more than resources and equipment, yet there is some ambivalence about the best way to proceed. Because the responsibility for liaison with the program coordinator is an add-on to a busy schedule for one staff member, the program receives only limited time and attention.

There is some skepticism within the school regarding motives and feasibility of the partnership and the career concept. Many teachers and staff at both sites are unclear about the goals of the program. One teacher indicated that the corporate sector had a more narrow view of what the end product should be - a focus on training rather than the development of broader skills. There was a sense that the private sector did not understand educational goals. Furthermore, these "extras," such as internships and special lectures, take time away from the regular academic program. The appropriate role one teacher sees for business is for resources and equipment and general program advice.

Health Sciences/Health Careers - Eastern High School and M.M. Washington Career Center

Eastern High School and M.M. Washington Career Center are the sites for the program in health sciences and health careers. Although a Health Science School exists in Houston, which staff from Eastern High School visited, this model was used only as a very general guide from which private sponsors and Eastern staff developed a program. The program contains two strands: a health sciences program at Eastern High School aimed at students who plan to go to college to study health related areas and a program at M.M. Washington Career Center, focusing on skills for entry-level positions in areas such as medical recordkeeping.

The curriculum for the health sciences program is a four-year program, emphasizing science, math, foreign languages, and other basic academic subjects, but with additional courses in medical terminology and health careers exploration. Some course sequences in the academic program were changed. For example, the sequence of math courses was altered so that students would take Algebra I and Algebra II, then geometry rather than taking geometry in between the two Algebra courses to prepare for their chemistry lab. Senior level classes will include courses taught at the college level (biochemistry and anatomy) to make the freshman year in college easier for the students. Additional lectures and internship experiences provide students with an introduction to health careers. The program also emphasizes test taking skills, speed reading, and public speaking.

Private sponsorship for this project was facilitated by personal connections and previous projects with local hospitals and universities. Lloyd Elliott, President of George Washington University knew Superintendent McKenzie and committed his support for the project. Howard University has a history of cooperative projects with the D.C. schools, and Eastern High School had previous collaboration with several of the D.C. hospitals for student internships. Once the sponsors were committed and Eastern High School selected as the site, development of the curriculum began.

George Washington University Medical School and the School of Allied Health took the lead in development of the curriculum, with -17-



Howard University also making a substantial contribution. In addition to the curriculum development, sponsors have been involved in lectures, internship experiences, and career day activities. Sponsors have also contributed resources, equipment, and faculty time.

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The program began in Fall 1982, but due to the time constraints, recruitment was a problem, so most recruitment efforts in the first year took place within Eastern High School. This past year, the coordinator placed greater emphasis on city-wide recruitment and selection. The selection committee chose 23 students out of 50, basing selection on grades, recommendations, and student interviews.

While the school reports a good rapport with private sponsors, particularly Howard University and the local hospitals, the person with current responsibility for the program at George Washington University reports minimal on-going involvement. Following a very intensive six-week period of curriculum development in summer 1982, George Washington University's involvement has diminished. The current program director at G.W.U. is in the Medical School and was assigned responsibility by his immediate supervisor, but has little personal interest in the program and even some reservations about the concept. "The ninth grade is too young to decide careers - basic English, math, and science - that's what kids need."

The liaison person at G.W.U. has suggested the responsibility be moved to the School of Allied Health, where there is more interest and a closer link with high school students, but this has not occurred. Currently, George Washington University merely responds to requests from the school and does little to initiate ideas. The G.W.U. liaison person believes the requests for faculty time are often unrealistic, but has been directed to accommodate demands and has spent time arranging speakers, a special ceremony, and preceptorships for students. He admits that if he had an interest in the program he could probably do more, but he is unclear about the goals of the program or the role that G.W.U. should play. Thus G.W.U. has not had much impact on the program since developing the curriculum. No one has made the project a priority, but the collaboration continues, at least in name, because the president of the university stated his support.

The Principal and Program Coordinator at Eastern are clear about the goals of the program: to build a strong academic foundation for students and give them experience in health careers. They want to produce a product in line with requirements of employers and universities. Although there was some initial resistance by teachers to the changes, the program now involves 17 teachers in the school and there are plans to expand it to areas for students interested in art or business - training students for such areas as medical illustration or health-related business fields. The school views the Business Advisory Council as a source of advice, a help with student placements, and other resources for the program. One hospital has agreed to furnish a hospital room in the school, while others have pledged equipment and speakers.

Community relations was a primary motive for George Washington University's commitment to the program. Although the medical faculty at G.W.U. has had little prior contact with the D.C. schools, they have a history of investment in community projects, through such programs as city-wide emergency medical services and free treatment of many local citizens. The university receives little recognition for those projects, but believes it is part of its role as an area medical facility to contribute. As a non-profit educational institution G.W.U. is not concerned with profit motives and has a mission close to that of the school system. Another factor was the interest in the idea of a health career program in a high school. Faculty saw this as an innovative idea and an opportunity to be involved in the program from the beginning, and therefore have substantial impact. And finally, as a long term goal, the G.W.U. School of Allied Health wanted to increase its winority applicant pool, although there is a great deal of uncertainty of any direct payoff for their investment of time and resources in this project.

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Hotel Management and Culinary Arts - Roosevelt High School/Burdick Center

Roosevelt High School/Burdick Center houses two programs: a program in culinary arts for the out-of-school unemployed, operated under the auspices of the Job Training Partnership Act (JTPA) and a program for high school students who wish to take courses in hotel management or culinary arts. This second program is still in the formative stages, while the former program has graduated three classes of students. Both programs operate with the same corporate sponsors.

The JTPA program is a 32-week training program, which includes seven hours per day of instruction, Monday through Friday, for 18 weeks plus 14 weeks on-the-job training. Instruction includes culinary arts taught by visiting chefs from the Culinary Institute of America as well as general job seeking skills and an introduction to the world of work, developed by 70,001 Ltd. The curriculum was designed by the Hotel Association in cooperation with the Culinary Institute of America and the 70,001 Ltd. Existing programs in Cincinnati, San Antonio, and West Chester provided a general reference. This program was specifically designed to train students to perform particular activities based on the needs of the prospective employees.

The program for high school students in hotel management and culinary arts consists of regular academic requirements plus some specialized courses in selected fields, for which the private sector provides some guidance. Courses have been adapted from the Educational Institute of Hotel Management of the American Hotel and Motel Association. Since 1983-84 is the first year for the high school program, the curriculum is still in developmental stages. However, it appears that with only slight addition to a student's schedule, he/she can take the electives along with the regular high school program. This program is intended both for the college bound student and the student -19-

seeking employment directly after high school. In both cases, the corporate sponsors are actively involved in the program and in making adjustments and suggestions to the curriculum. Students will take the regular academic course load for grades 10-12, plus elective courses in one of four fields: front office management; food and beverage management; marketing and sales; and culinary arts. School pesonnel have talked to recruiters at Howard, Tuskeegee and Cornell in developing the program to be compatible with their requirements.

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The collaboration with the Capital Hilton Hotel and the Hotel Association developed under the initiative of Frederick Kleisner, General Manager of the Capital Hilton Hotel. Kleisner, who had been involved in a program in Ryetown, N.Y., was looking for a program in culinary arts to train future employees and learned of the D.C. school partnership program. The public school had the facilities at Burdick Center which could be equiped as needed and the Hotel Association agreed to contribute the cost of curriculum development, house the chefs from the Culinary Institute of America, and provide other needed resources, as well as internship placements. As part of the JTPA program, businesses receive a credit on federal taxes for the payment during the internship and for hiring the graduates. (To date all of the JTPA graduates have been placed in jobs paying above minimum wage and that provide a career ladder.) The high school program grew from this same partnership.

The corporate sponsors meet with school personnel through the Business Advisory Council, but also provide continuous advice and support, as well as resources. Sponsors have been active in generating additional support in the community. School personnel keeps the sponsors informed of program changes and needs. The Business Advisory Panel sees its role as making sure the training and education match the needs of sponsors and providing advice for the high school program. The industry sponsors maintain an active role in the program, through the Business Advisory Panel and on a one-to-one basis with the program coordinator. In addition, sponsors have a substantial financial investment in the JTPA program.

The culinary arts program is appropriate for D.C. because of the large demand for all levels of employees in hotel and hospitality industry. It was this need for more and better trained employees that precipitated the culinary arts program; similarly, longer term the sponsors will need more managerial and office employees. Sponsors view this program as a mechanism to lower their training costs. Social responsibility goals are also present; the Capital Hilton believes in good corporate citizenship. "But our first responsibility is to the stockholders. If we can also be a good citizen, answer community needs, then the project is even more desireable." In supporting the JTPA program, there is a clear sense of accountability for businesses.



In addition, lower unemployment and improving the economic climate of the city helps the hotel business. By helping to structure a program for well trained employees, the hotel industry gets direct and indirect returns from its investment.



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ANALYSIS AND CONCLUSIONS

Based on this study it appears that reasons behind corporate investment in public education are not always clear. Some of the executives were not sure what they expected from the program, yet were committed to the idea. They expressed support for improving education and preparing youth for work through career high schools, but they had no explicit expectations for outcomes from the program. Most aponsors had some previous experience with education projects generally, and in some cases, with the D.C. public schools. For all the participating organizations, the D.C. school project is consistent with corporate goals. Each career high school is based on a field of study related to products and services of the sponsors, so common interest between the school and corporation is present. Every sponsor mentioned something akin to social responsibility as a motive, but other shorter term, more tangible motives were present as well. While these companies believe that corporate responsibility entails certain eleemosynary activities from which they do not expect a return, for profit-making companies, this is not enough to justify an investment. Other motives more closely related to long term profits must also be present. The other motives varied depending on the type of business, but all related more directly to the individual goals of the business. These motives ranged from those that are closely tied to profits to those where the return is nebulous.

Goldberg/Marchesano's investment incentive comes from a desire to improve corporate image and public relations efforts. As a result, the company has publicized its involvement with the program to a greater extent than any of the other businesses. Recognition for its contribution was a planned phenomenon, which was not only intended to improve corporate image of Goldberg/Marchesano, but also to increase interest and gain additional corporate support for the project. This objective is directly tied to long term profits.

Investment in human capital was an important motive for the national sponsor, General Motors, as well as the local businesses. PEPCO, the Hotel Association, and to some extent, the Bankers Association, view their involvement in the programs as an investment in human capital. This investment, however, is long term and indirect, with no guarantee that benefits will be recaptured. Except for the hotel association none of the sponsors expected to hire directly from their sponsored programs. Sponsors with a major interest in human capital investment emphasized the importance of broad general academic skills, not narrow training. In fact, the Bankers' initial disappointment in the business and finance program was because they felt the program was too narrowly focused on training for jobs rather than overall academic skills. General Motors and PEPCO view this as a small step in improving the pool of engineers, particularly minority engineers.



The Bankers Association had another goal related to self interest, but with less expectation of return on investment than human capital: increasing understanding of the free enterprise system. This motive approximates what Wise (1981) labels "business as a curriculum subject." Through this objective the banks seek to enhance support of the capitalist system, which is clearly in their self interest. It is in this area of influencing values in the classroom where there is a potential for conflict if corporate values diverge from those generally acceptable to teach (Harty, 1979; Ozman, 1982). In this case, the Bankers emphasized widely held values, thereby creating no conflict. They were able to enhance existing courses with case studies and additional enrichment materials to add an element of the real world.

Since George Washington University is a non-profit educational institution, it does not have the same concern of justifying its investment in terms of profit. This is reflected in its view of the project as a part of its role as a citizen in the community and its lack of concern for a return on its investment.

A crucial element underlying the involvement of all private sponsors was the interest of a key individual in the company. For large organizations, such as General Motors and PEPCO, the interest stems from their on-going commitment to education as a corporate concern. Appropriate individuals within the organization are designated responsibility for these activities. For the smaller local businesses, there were also personal ties to the Superintendent, but interest often diminished after responsibility was delegated to a staff person, as with George Washington University and Goldberg/Marchesano.

From the school side of the partnership, the leadership of Superintendent McKenzie was a major factor in developing these programs and obtaining corporate support. Every individual with whom we spoke mentioned the importance of McKenzie's personal involvement in the program. When there were major stumbling blocks, as with the Bankers, her involvement facilitated a solution. The school coordinators also indicated the importance of the Superintendent's leadership in obtaining cooperation within the school. The fact that McKenzie labeled this endeavor a priority helped to gain cooperation within the system.

While all sponsors expressed continued commitment to the program, the degree of on-going involvement varied. For some businesses, involvement increased as the program matured; for others, interest waned. For example the Bankers became more involved in the program as it developed, while G.W.U. showed less interest. This suggests that sponsors' view of the program and their self-interest in that program change over time. This involvement and the quality of the collaboration

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depends on the people involved. Where businesses maintain an active, on-going relationship with the school, there is an individual who has strong interest in the program and authority to make decisions and commitment of resources. While this responsibility may be an add-on to an existing job, the person must be able to devote adequate time to the program and consider it an important project. Having an organizational unit for this type of project certainly increases the attention the project receives, particularly in larger organizations, such as PEPCO or General Motors, but a separate office does not appear to be necessary, so long as the individual in charge is interested. Responsibility for the finance program has been added to the existing duties of a person in the Human Resources Division of American Security Bank, yet she has taken a very active role in the project.

Collaboration is a time-consuming process. Businesses don't always know what to offer and schools don't know what to ask for. The most successful on-going dialogues between the public and private sectors were those where both sides were willing to spend the time to establish mutual areas of interest and match needs and resources. But each school is unique and has particular problems and strengths, so arrangements with the private sector differ, according to how the individuals involved view their role. This finding of differences in the collaboration process among programs is consistent with previous research (Levine and Doyle, 1982; Timpane, 1982). There does not appear to be one model appropriate for all partnerships, even within the same school system.

Businesses which had the most involvement in the content of the program and the actual courses were those that had an interest associated with human capital investment or training, the Bankers Association, PEPCO, General Motors, and the Hotel Association. These companies saw their role as specifying general skills and providing supplementary materials for coursework. In these instances there was general agreement on what the product should be. The other sponsors had an interest in the overall program concept, but showed less interest in the content of the courses. All sponsors, however, had an interest in contributing to the educational program and preparing students for the world of work.

There was little skepticism from school personnel regarding corporate motives. Most believed the sponsors shared common interest in educating students. School personnel believed the major interest came from motives of corporate responsibility and investment in human capital. Only one faculty member indicated that business had more narrow training objectives than the school. Overall, school personnel believed that corporate sponsors were making an important contribution to the program, particularly in providing equipment, resources and advice.

The five programs focus on five different careers, and the programs vary in requirements and target groups. The finance strand at Woodson and the pre-engineering program at Dunbar are specifically for college



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bound students and emphasize academic coursework to prepare the student for college. The program for high school students in hotel management is still developing, but it, along with the communications and health sciences program, serve a more diverse target group, consisting of college bound and non-college bound students.

The programs which are closer to established academic curricula with additional coursework and enrichment appear to have developed most smoothly. Similar programs, which were used as models, existed in other cities. These are also the programs designed for the above-average college-bound students. Yet these programs are open to the charge of elitism and run the danger of stratifying students. Programs serving both college bound and non-college bound students have a mixed, and more complex mission and the goals of the program are not as clear. There is less agreement on what the product should be. Programs that focus too narrowly on job skills may close off options for students. But those that neglect job skills are not satisfying corporate goals. It is important that programs maintain a balance between appropriate level of academic and generic skills and job preparation. It appears that the most successful collaborations are those where both the schools and the businesses have a clear idea of the goals of the program and the students to be served and where the curriculum is a well-developed program with corporate sponsors providing guidance and supplementary materials, such as case studies or laboratory experiments, that provide a real world element to supplement classwork.

Although some sponsors have been more active and directive in curricula matters than others, in no instance did the private sector take over the program or impose their objectives on the academic content. Nor did the school coordinators think the private sector was having too much influence on the academic program. Aside from courses related to the career area, the most usual form of private sector input into academic courses was advice on skill areas to emphasize. But this did not usually include advice on course sequence, content, or pedagogy, except where educators in the private sector were involved (General Motors Institute and George Walnington University School of Allied Health). In other words, education matters remained in the hands of educators.

One factor that varied across programs and appears to influence the nature of the collaboration is the style of the business. For example the input of the D.C. Bankers Association and PEPCO consists of specific programs and planned activities which are part of the overall curriculum. Goldberg/Marchesano, on the other hand, works better within a less structured format and believes students and teachers can learn a great deal about the activities and pace of an ad agency by just spending a day or a few hours there. Part of their contribution of "real world experience" consists of exposure. One corporate representative indicated that the informal experiences may be the most useful. "Kids need to learn what a deadline is; if we miss a deadline, its serious; there's a hole in the newspaper. Kids need to understand -25-

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that. They don't get that kind of experience in school." This view of their function is reflected in the kinds of activities the business supports and the role it plays in the program.

Despite the areas of agreement, we did find that the public and private sectors often have different views and different expectations for the program. Several school coordinators indicated that industry often expected too much of students or did not understand the limitations of internships. Similarly, individuals in business indicated students did not understand the business world, or the responsibilities associated with a job. The time frames of the business day and school day are not compatible, thereby limiting external experiences for both students and teachers. Additionally, the time students spend in experiences outside the classroom limits their time in class and consequently, time on academic subjects.

The involvement of business in planning and implementing the curriculum/carries an implicit recognition of the important role of the business in the community and in helping students make the transition from school to work more easily. This collaboration also implies the public nature of secondary education. Improving the quality of education benefits society as much as the individual students. A fundamental premise in these programs is that business must share the responsibility for educating students for careers. At the same time, schools must be responsive to the needs of businesses and assure that their graduates are employable and possess the basic skills needed by employees. But how this responsibility translated into activities varied across programs.

Although internal processes of program development were not a focus of this study, we did gain some insight into barriers which exist within the school. In all cases, there was some resistance by faculty to change. When programs were most closely tied to the traditional academic program, resistance was minimal. The cooperation of department heads and faculty was essential at all stages of program development.

Another factor hindering the development of these programs was competition among the schools. While in one sense the competition was an important factor in selling the ideas to the schools it has inhibited recruitment efforts. Schools do not want to lose students to these programs. This is a particularly difficult problem for Dunbar which recruits 9th graders out of the junior high schools. Loss of bright students can affect test scores of a school as well as resource allocation. All schools have had recruitment problems, although many, now in the second year, have made recruitment a priority.

These programs must operate within the framework of the D.C. schools. Some of the problems inherent in many large school systems are evident in these programs: difficulties in obtaining supplies; delays in ordering textbooks; and lack of office space. But those problems are minor, and have little to do with the collaborative process.



Despite the problems encountered, these career programs demonstrate a notable accomplishment in partnerships between the public and private sectors. These programs introduce students to new careers, provide them with a positive outlook of work, provide role models, provide enrichment experiences, and keep teachers abreast of current ideas in the field. Most important, the programs provide both an emphasis on basic skills and academic areas and an understanding of the world of work. It appears that private sector interests, based on individual goals, can be compatible with the broader educational objectives of the school system. How successful these programs are longer term in improving education and employability of students remains to be seen.



References

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- Burt, S. M., & Lessinger, L. M. (1970). Volunteer industry involvement in public education. Lexington, MA: Heath Lexington Books.
- Cannes, R. C. (1974-75). Social responsibility: The art of the possible. Business and Society Review, 12, 94-99.
- Chaffee, J., Jr. (1980). Business-school partnerships: A plus for kids. Arlington, VA: National School Public Relations
 Association.
- Harty, S. (1979). Hucksters in the classroom: A review of industrial propaganda in schools. Washington, DC: Center for the Study of Responsive Law.
- Levine, M., & Doyle, D. P. (1982). Private meets public: An examinatin of contemporary education. In J. E. Meyer (Ed.), Meeting human needs: Toward a new public philosophy (pp. 272-329). Washington, DC: American Enterprise Institute.
- Lusterman, S., & Gorlin, H. (1980). Educating students for work: some business roles. New York: The Conference Board.
- McKenzie, F. (1983). Testimony before the senate subcommittee on governmental efficiency and the District of Columbia. May 1, 1983, (xerox copy).
- McRie, J. W. (Ed.). (1974). Social responsibility and the business predicament. Washington, DC: The Brookings Institution.
- National Urban Coalition. (1980). Collaborative programs in urban schools: Case studies. (Final Report). Washington, DC: National Institute of Education.
- Ozman, H. (1982). Adopt-a-school: Definitely not business as usual.
 Phi Delta Kappan, 63(5).
 - Savas, E. S. (1982). Privatizing the public sector. Chatham, NJ: Chatham House Publishers, Inc.
 - Thoreen, P. W. (1981). On the profitable provision of public goods and services. American Behavioral Scientist, 24(4), 573-598.
 - Timpane, M. (1982). Corporations and public education in the cities.

 (Report to the Carnegie Corporation). New York: Teachers College,
 Columbia College.
 - White, R. (1983, April 1). District schools get \$2.5 million for career effort. Washington Post.



.

Wise, R. I. (1981). Schools, business, and educational needs: From cooperation to collaboration. Education and Urban Development, 14(1), 67-82.