Successful changes that took place as a result of vocational education during the first two decades of the twentieth century are examined and historical parallels are drawn with career education today. The major intent is to give one example of how historical inquiry can inform policymakers who want to design and oversee educational reforms. The success of vocational education is analyzed in terms of (1) structural innovations (such as the comprehensive high school, the junior high school, and vocational guidance); (2) an emerging ideological consensus that schools can and should prepare youth for jobs; and (3) the creation of new groups with vested interests in maintaining those structures (such as vocational education teachers, guidance counselors, and IQ testers). The author concludes that, in terms of ideology, the success of vocational education may be seen in the unquestioned acceptance of the idea that schools should and can prepare youth for rapidly changing career requirements, with the result that career educators tend to narrowly focus their attention on how the schools can best perform that function. Advocates of career education are urged to be aware that designing and overseeing educational reform requires a thorough understanding of all the questions implied (particularly the question of whether schools can prepare youth for jobs) and that historical inquiry need not be modest about what it can contribute to that process. (LAS)
I address my remarks to a particular educational reform -- vocational education -- one that in my view was, and continues to be a "successful" reform. By successful, I mean that as a result of a reform effort, changes took place that have become permanently imbedded in both the structure and ideology of American public schooling. These changes may be understood in terms of structural innovations (such as the comprehensive high school, the junior high school, and vocational guidance), in the creation of new groups with vested interests in maintaining those structures (such as vocational education teachers, guidance counselors, and I.Q. testers), and perhaps most importantly, in terms of an emerging ideological consensus that schools can -- and should -- prepare youth for jobs. In this paper I will describe in some detail the successful changes that took place as a result of vocational education during the first two decades of the twentieth century. Then I will draw several historical parallels with career education today. The intent of the paper is to give one example of how historical inquiry can inform policy makers who want to design and oversee educational reforms.

Numerous forces catapulted vocational education into the mainstream of American public education between 1906 and 1917. From sources external to the public school system came demands to increase industrial productivity through

skill training, and to reduce social disorganization through an education adapted to the urban-industrial environment. From inside the public schools came demands to reorganize schools by adopting models of industrial efficiency, and to reduce the high drop-out rates by replacing the irrelevant classical curriculum with courses suited to the needs of an industrial civilization. In a campaign to win state and federal support for vocational education, businessmen, representatives of organized labor, and urban reformers joined in an uneasy coalition to form the National Society for the Promotion of Industrial Education (NSPIE) in 1906. Often in competition and conflict with NSPIE, educators, college presidents, state commissioners of education, and national educational associations labored to promote their own visions of vocational education. Through the efforts of these and other groups and individuals, vocational education gained momentum in the second decade of the twentieth century and culminated in the passage of the Smith-Hughes Act in 1917. Since a number of historians have already examined various aspects of vocational education -- its economic roots, its politics, its programs, and its social and economic consequences -- I will limit my comments on the reform of vocational education to the context of the changing relationship between jobs and schooling, a change largely brought about by the emergence of the high school as a mass institution.¹

In the nineteenth century, the goal of public education was to teach the basics: impart to students the reading, writing, and computational skills that would serve as a foundation for continued self-education after leaving school.² Seldom was schooling seen as a preparation for jobs; indeed, a widespread belief in the culture of self-help mitigated against establishing a close relationship between jobs and school. Secondary education in the nineteenth century was a minority institution. In the words of the National
Education Association's Committee of Ten in 1893, the high school was designed to prepare for the duties of life that small proportion of all the children in the country -- a proportion small in number, but very important to the welfare of the nation -- who show themselves able to profit by an education prolonged to the eighteenth year, and whose parents are able to support them while they remain so long in school. 3

Vocational training was not a function of the high school; in fact some late nineteenth century critics argued that continued schooling beyond the elementary years might actually inhibit youth from assuming responsible work. In 1879, one of the architects of the Portland, Oregon public schools warned that extended schooling might "graduate whole regiments of sickly sentimentalists: young gentlemen unused and unfit to work." 4 "The maintenance of free high schools is unwise," proclaimed the Massachusetts paper manufacturer James P. Munroe in 1892, because it offers to boys and girls wholly unfit for secondary education, a temptation to exchange the actual benefit of remunerative work at 15 years of age for the doubtful advantage of a training that can have no direct bearing upon their life work, and which, at the time of life it occurs, may do decided harm. 5

Finally, in an age when there were few school requirements for available jobs, a majority of the population felt that occupational success bore little relation to secondary schooling. Such beliefs were reflected by a businessman in 1880 who stated: "a child who has a good English education, if he has any snap about him, will succeed better than the average graduate of the high school who knows a little of everything." 6 Yet, in spite of these reservations about the relationship between jobs and schooling, the high school was rapidly becoming a mass institution -- one that would soon embrace the
majority of American adolescents.

The growth of public secondary education around the turn of the century was phenomenal by any standard. Between 1890 and 1920 new high schools opened on the average of over one per day, a 467 percent increase for the thirty-year period. Likewise, nationwide student enrollments increased by 812 percent compared to a total population increase during the same period of only 68 percent. Most important, however, were the figures reflecting the percentage of youth of ages fourteen to seventeen enrolled in public high schools: from less than 1 percent in 1880, the figures swelled to 28 percent by 1920, and to 47 percent by 1930. This rapid expansion of the high school constituted an unprecedented experiment in human history: for the first time in history, millions of young people were going to school rather than following the normal pattern of going to work. Indeed, during that period, schooling had replaced work as the "occupation" of youth. Schoolmen were acutely conscious that this shift violated long-held values and folkways and attempted to find a moral equivalent for productive employment within the school. With hopes of smoothly meshing the high school and the occupational order, school officials sought a social, political, and economic justification for schooling youth rather than employing them. Vocational education provided those needed rationales and established structures that fundamentally altered the ways in which people viewed the relationship between jobs and schooling.

Part of the justification employed by the architects of vocational education for extending the schooling of youth beyond fourteen years of age was that the nature of work had changed in the twentieth century. They believed that industrialization had separated work and life by removing the locus of work from home to factory; therefore, the school had to offer the vocational training once provided by other social institutions. Likewise, with the inven-
tion of cash registers, pneumatic tubes, telephones, and a host of assorted office machines, the major jobs for twelve to sixteen-year-olds -- cash boys and girls, office workers, messengers, and telegram delivery boys -- became obsolete. Chicago social settlement workers Edith Abbott and Sophonisba Breckenridge observed in 1917 'that at present there is so little demand for the labor of children under sixteen years of age that it is impossible for more than a small percentage of the children who leave school at the age of fourteen or fifteen to find employment.' Changes in the nature of work, therefore, had not only reduced the number of jobs for youth but had resulted in demands for more highly skilled workers capable of operating the new machines.

Advocates of vocational education felt that extended schooling could integrate youth more smoothly into the economy; however, as presently constituted, the traditional high school was, at best, poorly equipped to meet the changed educational demands. School surveys and studies of school drop-outs confirmed the need for an educational reform that would reduce the disjuncture between jobs and schooling. In an inquiry into why children left high schools in such large numbers, the Massachusetts Commission on Industrial Education concluded in 1906 that 'It is the dissatisfaction of the child which takes him from the school . . . the great lack is in the system, which fails to offer the child of fourteen continued schooling of a practical character.' This theme was reiterated seven years later by the editor of Manual Training Magazine: 'children leave school because they don't like to go to school, because the work is distasteful to them and offers them little or nothing that they may conceive to be of value in their lives.' Theodore Roosevelt joined the chorus of critics in his annual message to Congress in 1907.

Our school system is gravely defective in so far as it puts a premium upon mere
literacy training, and tends therefore to train the boy away from the farm and the workshop. Nothing more is needed than the best type of industrial school, the school for mechanical industries in the city, the school for practically teaching agriculture in the country. 11

In short, the traditional literary curriculum of the high school -- in which 49 percent of the total students still enrolled in Latin as late as 1910 -- was accused of being irrelevant, bookish, and as I will discuss in a moment, undemocratic as well.

"To begin industrial training in the public schools," stated the Superintendent of Boston Schools in 1908, "is the only way our schools can be made truly democratic." He continued,

"Until very recently they have offered equal opportunity for all to receive one kind of education, but what will make them democratic is to provide opportunity for all to receive such education as will fit them equally well for their particular life work. 12"

In the minds of many reformers, the high schools around the turn of the century had been exclusively serving the interests of the upper classes. With the belief that the high school should serve the children of all social classes, Harvard President Charles W. Eliot stated that "the educational publicist must keep in mind the interests of the 95 percent of the children, rather than those of the 5 percent." 13 Eliot and others believed that the professional and managerial classes were well taken care of, and that now the schools must see to the needs of the common man. Thus, vocational education would keep the students in school because they would be interested in the curriculum and would benefit from the training. Finally, vocational education would restore the promise of American education and American democracy by serving the needs of all pupils, not just those of the elites and the
college-bound.

In 1918, the year following the passage of the Smith-Hughes Act which provided federal support for vocational education, the National Education Association's Commission On The Reorganization of Secondary Education (CRSE) published an influential report that confirmed the shifting climate of opinion in support of a closer link between jobs and schooling. Entitled The Cardinal Principles of Secondary Education, the report duly noted the many changes which had taken place in American life that affected the integration of youth into the economic order. "Vocation" was one of the seven Cardinal Principles that were to guide the future course of secondary education:

Vocational education should equip the individual to secure a livelihood for himself and those dependent on him, to serve society well through his vocation, to maintain the right relationships toward his fellow workers and society, and, as far as possible, to find in that vocation his own best development. 14

In the quarter century between the Report of the Committee of Ten and the Cardinal Principles of Secondary Education, high schools in America had been endowed with the important new task of preparing youth for the world of work. An important new belief in the relationship between jobs and schooling had been established.

The structural and ideological success of vocational education goes beyond the mere provision of a vocational curricula and a belief in the relationship between jobs and schooling. In the early years of the century, schoolmen argued against a dual system of education on the grounds that providing separate schools for vocational training would polarize class divisions and necessitate a costly duplication of administrative machinery. Seeking both to preserve the egalitarian values of American schooling and to satisfy the skill
requirements of industrialism, schoolmen successfully advanced the idea of the comprehensive high school, a school that would provide both vocational and liberal education. Although a segregated school system was rejected, the acceptance of a differentiated curriculum represented a radical departure from common school ideology. That ideology, espoused by educators from Horace Mann to William Torrey Harris, insisted that all children, regardless of class or future vocation, should receive the same education. The emergent ideology, according to the *Cardinal Principles of Secondary Education*, recognized "individual differences in capacities and aptitudes among secondary-school pupils," and sought to provide an education for all children commensurate with their abilities and probable occupations. 15

To meet the goal of fitting students for their life work, it became necessary, as Charles Eliot noted, to sort students "by their evident or probable destinies." 16 This critical process of selection should not be done haphazardly by the classroom teacher. Rather, selection should be achieved objectively through scientific testing and vocational counseling. The use of scientific means for selection, claimed the executive secretary of NSPE Charles Prosser, would "adjust boys and girls for life by having them undergo varied experiences in order to uncover their varied tastes and aptitudes and to direct and to train them in the avenues for which they display the most capacity." Such a program, Prosser concluded, "would require a differentiation of the course of study for pupils between twelve and fourteen years of age." 17 Vocational education, therefore, not only made educational testing and vocational guidance fundamental to the operation of the schools but also lent support for an entirely new structure in American education— the junior high school.

Thus, the success of vocational education may be seen in terms of struc
tural changes (the comprehensive high school, the junior high school, and vocational guidance), in the creation of new groups with vested interests in maintaining those structures (vocational education teachers, guidance counselors, and I.Q. testers), and perhaps most importantly in terms of an emerging ideological consensus that schools can -- and should -- prepare youth for jobs. Although the economic promises of vocational education, at least as measured by income, job stability, and employment rates, failed to materialize, the belief in the close relationship between jobs and schooling remained strong and was sufficient to support the structures it had fostered.  

Today, as various federal, state, and local agencies attempt to formulate policy guidelines for career education, increasingly conceived of as a program around which all schooling should be organized, I see a greater need than ever to examine historical parallels with vocational education. Lacking a historical understanding of the structural and ideological legacies of vocational education, advocates of career education are often unable to examine certain taken-for-granted assumptions about their particular reform. As a consequence, they may be expending boundless energy reinventing an ideology and a structure ill-equipped to solve the urgent problems that command our attention.

Many observers view career education as an entirely new concept, evolving in part from the failure of liberal educational policies of the 1960's and in part from the growing sense of crisis concerning work in America. Although there are many differences between the two reforms, the impetus for career education remains the same as it was for vocational education, namely: overcoming a perceived disjuncture between jobs and schooling. Reminiscent of turn-of-the-century schoolmen, proponents of career education seek to prepare students to enter the world of adult work and responsibility by improving the
articulation between jobs and schooling.

The relationship between jobs and schooling, however, remains elusive due largely to the structural and ideological successes of vocational education. In terms of structure, advocates of career education often assume what was problematic around the turn of the century: that secondary schooling has long been a common feature of American education. Contemporary policy makers attempt to fit their conception of career education into an unexamined assumption concerning the universality of secondary schooling, apparently unaware that less than fifty years ago the struggle for universal schooling of youth ages fourteen to seventeen was still undecided. As I have shown, during that era people questioned the advisability of extending the years of schooling beyond age fourteen. However, by combining liberal and vocational education in the comprehensive high school, a structure emerged that blurred the debate about jobs and schooling and, in that process, insured the almost universal acceptance of secondary education. Finally, in terms of ideology, the success of vocational education may be seen in the unquestioned acceptance of the idea that schools should and can prepare youth for rapidly changing career requirements. The result is that career educators tend to narrowly focus their attention on how the schools can best perform that function.

In conclusion, I quote from a recent article on educational testing by Lee J. Cronbach: "The social scientist is trained to think that he does not know all the answers. The social scientist is not trained to realize that he does not know all the questions. And that is why his social influence is not unfailingly constructive."20 I assume that advocates of career education realize they do not know all the answers as they ask how schools can prepare youth for jobs. I am more concerned that advocates of career education do not realize that they know all the questions -- particularly when they fail to ask
if schools can prepare youth for jobs. Designing and overseeing educational reform requires a thorough understanding of all the questions. Historical inquiry need not be immodest about what it can contribute to that process.
REFERENCES


2. See William T. Harris, "Elementary Education," in Nicholas M. Butler, ed., MONOGRAPHS ON EDUCATION IN THE UNITED STATES (Albany, N.Y.: J. B. Lyon, 1900), 79-139.

3. Quoted in Krug, SHAPING OF THE AMERICAN HIGH SCHOOL, 64.


5. Quoted in Krug, SHAPING OF THE AMERICAN HIGH SCHOOL, 179.


15. CARDINAL PRINCIPLES, 2.


17. Quoted in Wirth, EDUCATION IN THE TECHNOLOGICAL SOCIETY, 102.

