

DOCUMENT RESUME

ED 034 861

VT 009 830

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TITLE Education for Employment: The Background and Potential of the 1968 Vocational Education Amendments. Policy Papers in Human Resources and Industrial Relations No. 14.
INSTITUTION Michigan Univ., Ann Arbor. Inst. of Labor and Industrial Relations.; National Manpower Policy Task Force, Washington, D.C.
PUB DATE May 69
NOTE 128p.
AVAILABLE FROM Institute of Labor and Industrial Relations, University of Michigan-Wayne State University, P.O. Box 1567, Ann Arbor, Michigan 48106 (\$2.50)
EDRS PRICE MF-\$0.75 HC Not Available from EDRS.
DESCRIPTORS Advisory Committees, Educational Needs, *Educational Philosophy, *Federal Laws, *Federal Programs, Historical Reviews, Manpower Development, *Program Development, Program Effectiveness, Program Improvement, *Vocational Education
IDENTIFIERS *Vocational Education Amendments of 1968

ABSTRACT

The Vocational Education Amendments of 1968 have the potential for a major breakthrough in all education, vocational and otherwise. The Vocational Education Act of 1963 established broadened objectives and enlarged appropriations but did not tie funds to performance. Lacking that tie, no effective leverage existed to entice federal, state and local vocational educators from the orientation of 1917 to that needed by an advanced technical society. The 1968 act did more than relate appropriations to objectives. It expanded the definition of vocational education and removed some of the narrowing structures which had sharply differentiated vocational from academic education. It insisted upon comprehensive state planning and sought to strengthen the federal leadership role through national and state advisory councils with independent staffs, budgets and authority. Though there are pitfalls in the act's interpretation and administration, it represents a major contribution toward preparing people for employment and substantial leverage toward achieving new objectives. A discussion of the 1968 Report of the Advisory Council on Vocational Education serves as a basis for evaluating the potential of the various thrusts of the 1968 amendments. (DM)

Education for Employment: the background and potential of the 1968 vocational education amendments

ED034861

POLICY PAPERS IN
HUMAN RESOURCES AND
INDUSTRIAL RELATIONS
No. 14

Rupert N. Evans
Garth L. Mangum
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**THE INSTITUTE OF LABOR AND
INDUSTRIAL RELATIONS**

**The University of Michigan
Wayne State University**

a joint publication with the
National Manpower Policy Task Force

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Washington, D. C.

May, 1969
Ann Arbor, Michigan

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Preface

The Vocational Education Act of 1963 required the establishment, in 1966, of an Advisory Council on Vocational Education to evaluate the results of the act and to report, with recommendations for improvement, by January 1968. In all the varied history of government by *ad hoc* commission, council, and task force, few such groups have been more successful. Nine months later, most of the Council's recommendations were written into the Vocational Education Amendments of 1968. The influence of the Council's report and recommendations was totally unrelated to the support the Council received in its deliberations. It had no independent budget. Its staff was limited to two men, and every effort to garner information not available through the abysmal official reporting procedure was stymied by lack of funds. Though the Council enjoyed the full support and cooperation of Dr. Grant Venn, Director of the Bureau of Adult, Vocational and Library Programs, without resources and higher level interest, its task proved extraordinarily difficult.

Toward the end of the Council's deliberations, the feeling grew that a more conceptual and "popular" document was needed in addition to the descriptive, statistical, and somewhat lengthy report prepared by the Council's hardworking but overburdened staff. We undertook the task of writing that document which was unanimously approved and adopted by a subcommittee and by the rest of the Council.

At that point a series of interesting events transpired leading to the decision to publish this document. Our report, originally entitled "Education for Employment," was disseminated as Publication 1, purporting to contain the highlights and recommendations of the longer report.¹ However, a number of passages critical of the U.S.

¹ "Vocational Education, The Bridge Between Man and His Work," Publication 1, Highlights and Recommendations from the General Report of the Advisory Commission on Vocational Education, U.S. Department of Health, Education and Welfare, Office of Education, December, 1967. (Multilithed)

Office of Education's role in the administration of the 1963 act somehow emerged reflecting praise of the Office on those same points. Beyond the "inaccurate" multilithed version, the Office of Education concluded it could not afford the costs of printing "Publication 1." Thereupon, the Senate Education Subcommittee resolved to print both reports in a committee print bearing the "attractive" title of "Notes and Working Papers Concerning the Administration of Programs Authorized Under Vocational Education Act of 1963, Public Law 88-210, As Amended."² Few seem to have been enticed past that title to discover two independent reports (one purporting to contain the highlights of the other), but with little relation between the two either in substance or philosophy—though both carried the Council's unanimous recommendations. Later, the Office of Education decided to publish the longer report but not the shorter one.³

Though neither document was laudatory of many current practices in vocational education, the American Vocational Association took a commendably pragmatic approach. They seemed to be saying, "Criticize us if you must but recommend that we be given expanded funds with which to rehabilitate ourselves and we won't complain."

The fates decreed that the shorter document would be the one most attractive and useful to Congress in preparing the Vocational Education Amendments of 1968. The 118th Psalm laments: "The stone which the builders refused is become the headstone of the corner." Though the subject matter is less exalted, we are moved to boast that "the report which was rejected by the responsible agency brought that agency an authorization rising to almost \$1 billion per year."

We consider this report too important to be relegated to the obscurity of a Senate committee print. Not only was it historically important for its legislative role, but its substance merits attention from all those interested in the process by which our youth are prepared for employment. It outlines those historical trends which have made formal preparation for employment increasingly a requirement for success in the job market. It identifies the legislative and administrative shortcomings which limited the impact of the promising act of 1963. It describes the current state of vocational education. Most important of all, it sets forth a philosophical justification for

² "Notes and Working Papers Concerning the Administration of Programs Authorized Under Vocational Education Act of 1963, Public Law 88-210, As Amended," Prepared for the Subcommittee on Education of the Committee on Labor and Public Welfare, United States Senate, 90th Cong., 2nd Sess., March, 1968.

³ *Vocational Education, The Bridge Between Man and His Work*, Washington: U.S. Government Printing Office, November, 1968.

a vocational education which can more than prepare youth for employment; it can also, to use Marvin Feldman's term, provide the motivating techniques to "make all education relevant."

We consider the Vocational Education Amendments of 1968 to have the potential for a major breakthrough in all education, vocational and otherwise. The 1963 act established admirable objectives and enlarged appropriations, but it did not tie funds to performance. Lacking that tie, no effective leverage existed to entice federal, state, and local vocational educators from the orientation of 1917 to that needed by an advanced technical society. The 1968 act did more than relate appropriations to objectives. It wiped the slate clean of past legislation and emphases in vocational education. It expanded the definition of vocational education and removed some of the narrowing strictures which had sharply differentiated vocational from academic education. It insisted upon comprehensive state planning and sought to strengthen the federal leadership role. It made innovation a key objective. Through national and state advisory councils with independent staffs, budgets, and authority, it intended to bring lay perspective and influence into the too insular world of vocational education.

But no legislative language can successfully bind those who appropriate funds and those who administer programs to a change in philosophy. In addition to reprinting the Vocational Education Advisory Council's Publication 1, heretofore not generally available, we add a section describing the content and potential of the 1968 act and warning against pitfalls in its interpretation and administration. Neither the report nor the Vocational Education Act of 1968 are the final word in preparing people for employment, but they do represent, respectively, a major contribution to the dialogue and substantial leverage toward achieving new objectives.

We express appreciation to Richard D. Smith, Associate Counsel, Subcommittee on Education, United States Senate, and Dr. Elizabeth Simpson, University of Illinois, for insights into the legislative history of the act. Responsibility for interpretation of that information and for all else within these pages is totally ours.

The Authors

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Education for Employment: Report of the Advisory Council on Vocational Education, 1968

In 1963, Congress gave fundamental and philosophical attention to vocational education for the first time since 1917. The immediate motivation was high unemployment among untrained and inexperienced youth. However, a long-run impetus was provided by the growing importance of formal preparation for employment in an increasingly technical and sophisticated economy. The Vocational Education Act of 1963 not only addressed itself to changing manpower requirements but endorsed a profound shift in the interpretation of principles of federal support for vocational education. The 1917 Smith-Hughes Vocational Education Act had grown out of the demands of an economy just reaching industrial maturity. Its primary objective was to meet the needs of the labor market. The 1963 act was the product of a growing sensitivity to human welfare, and its emphasis was upon the people who needed skills rather than upon the occupations which needed skilled people. In place of the previous focus on seven occupational categories as the boundaries of federally supported vocational education, the dimensions of the new act were the employment-oriented educational needs of various population groups.

The authors of the Vocational Education Act of 1963, recognizing the need for flexibility in a rapidly changing society and the difficulties of reorienting institutions to keep pace with new demands, built in an evaluation system. Part of that evaluation process was the appointment in 1966 and each five years thereafter of a Vocational Education Advisory Council to appraise the results of the act and recommend administrative and legislative improvements.

In conducting the first of what will be a continuing series of evaluative efforts, this council faced a number of inherent difficulties we hope to spare others in the future. Due to the lag between legislative authorization and appropriation of funds to support it and the slowness and inadequacy of the statistical reporting system, we have actually appraised only two years' experience under the act. Because of the pressures of change and expansion to effectuate the new legislation, inadequate advance attention was given to the data and information needs of the council and to the development of a continuing data reporting and analysis system to assure adequate information for evaluation and decisionmaking. We hope our experience and recommendations will lead to better preparation for and more adequate evaluation by future Vocational Education Advisory Councils.

The Social and Economic Environment of Vocational Education

The Vocational Education Act of 1963 was one indication of a new stage in U.S. economic and social life. It was part of a growing recognition that the primary source of income and wealth in the world's most advanced and complex economy was no longer the ownership of real property as it had been in the nation's first century, or native wit and brawn as it was through most of the second. In the few years since the Second World War, a profound change had taken place, making formally developed individual talents and skills an almost indispensable requirement for successful participation in the labor market.

Education in the Preindustrial United States

The change, like most economic occurrences, came about for dual reasons of supply and demand, neither of which can be identified simply as cause and effect. Education in agrarian America and in the early stages of industrialization had two primary functions. The first was provision of the basic literacy assumed necessary for meaningful participation in democratic processes. The second was acculturation of the masses of immigrants of many languages and backgrounds who flooded into the new melting pot in one of the greatest migrations in history. Beyond those fundamental objectives, education was a "selecting out" process. Its aim was to identify those who aspired to the few professional positions in the simple economy and to see them beyond the common school into a "high" school preparatory to a university education. The growing economy had ample uses for those without formal preparation. To achieve the massive objective of education for literate citizenship, public support was advocated for the common schools and later the high schools. But it was assumed that sufficient numbers of college-educated persons would emerge at their own ex-

pense. Thus, the educated tended to be a self-perpetuating elite who could afford their education because their parents could.

The land-grant college and agricultural extension system emerged from the need for professional competence in an agricultural economy which had failed to produce the surplus necessary for higher education. The land-grant colleges, in their "mechanic arts" component, also recognized the rudimentary engineering needs of the emerging industrial revolution which gained momentum in the years following the Civil War. The Smith-Hughes Vocational Education Act of 1917 represented an advancing stage in the logic of specialization of labor which was inherent in industrialization. These developments increasingly demanded formal provision and enhancement of at least a few specialized skills. The act's provision for dominant allotments to vocational agriculture and home economics was probably the necessary political price of public assistance to industries still in a minority position. The system worked well through the twenties, and enrollments continued to grow through the 1930's, even though not inadequate skills, but lack of jobs, was the pervasive problem.

The Impact of the Second World War

The Second World War brought to full fruition the mechanization process which gave the United States the world's most advanced and complex industrial economy. With half a world to feed and arm and with the cream of its own labor force committed to military combat, the U.S. economy was forced in the early 1940's to multiply its output almost overnight.

Part of the required manpower came from the nation's farms. Urban industry had been made possible in part by rising agricultural productivity, enabling fewer farmers year by year to feed more and more city folk. The massive immigration from abroad had supplied muscles, and, to a lesser degree, skills, but it had also brought mouths to feed. After the First World War, the U.S. labor force had gained sufficient political power to shut off competition from those who came with like ambitions but too late. Thereafter, only the manpower no longer needed by agriculture, added to normal population increases, could provide the labor for industrialization.

For a century, outmigration from the farms had been underway but at a speed just great enough to be absorbed by growing industry. The land-grant colleges and agricultural extension accelerated the growth of productivity in agriculture, but industry's demands were growing simultaneously. Only part of the rising output per man in agriculture came from better farming methods, increased machinery, and im-

proved fertilizers and seeds. The very exodus of the surplus labor inherent in an agricultural economy allowed increases in output per man and, consequently, in the income of those remaining. At the same time, those who left the farm also found higher productivity and incomes in industrial employment. With industry at a rudimentary stage, agricultural emigrants, blessed with initiative and ingenuity and accustomed to hard physical work, were prime industrial labor. At moderate rates of voluntary exodus, those people who tended to be more aggressive and better prepared moved to the city.

With that population shift, more than the physical environment changed. The extended family unit was compressed to the primary family unit of husband, wife, and children. Children were no longer introduced to the world of work as family workers under the tutelage of their parents. The number of available occupations was vast and the possibility of becoming acquainted with most of them slight. The gradual entrance to the work force, typical of agrarian societies, was replaced by the sharp entrance and exit points of the industrial working life.

During the 1930's, a brief cessation of outmigration and even a slight back-to-the farm movement occurred, but this only stored up labor for a more massive emigration and a quick acceleration of agricultural productivity with the return of urban opportunities. The period also brought protective farm legislation which encouraged mechanization and consolidation of farming units and displaced thousands of sharecroppers and other marginal farmers who had no place to go but cityward. World War II changed the speed and the nature of the migration, and, ultimately, the lot of the migrants. With the advent of war production, the tide of the depression reversed. Agricultural productivity, which had been increasing at a long-term average of about one percent per year for decades, suddenly leaped to above 5 percent—and stayed there. The launching of the auto industry and other industrial booms had been enough previously to attract small floodlets of labor from western farms and southern mountains. The intense wartime demands were sufficient to attract labor from the Deep South as well. It also reached the ranks of the retired and housewives who had never before experienced remunerative employment.

However, with 10 million prime age men under arms, the mere recruitment of inexperienced workers was not enough. Their muscles had to be augmented by machines and their physical strength polished by training in sophisticated skills. Almost overnight, school shops and laboratories were reequipped, instructors were recruited, and 24-hour-a-day vocational instruction began, oriented to skills in national

as well as local demand. Before the war's end, the public schools had trained 7.5 million people for industrial contribution to the war effort.

Postwar Developments

The war ended; the men came home; the older workers re-retired. But the agricultural emigrants never returned to the farm; many women never returned full time to the kitchen. As a reward to those who had expended years of their lives in combat—and perhaps to ease their reincorporation into the civilian labor force—the GI bill was passed. With these events, new and profound changes had occurred in the U.S. labor markets. These markets would never be the same again.

Vast accumulations of unspent purchasing power along with stored-up demands for goods and services kept the economy operating at high, though not forced draft, levels. The Korean conflict delayed the inevitable postwar readjustment by another three years. But during the latter 1950's, new labor market relationships began to make themselves felt. With continuation of price support policies, continued mechanization, and increased awareness of rural-urban income differentials, the pace of agriculture productivity and outmigration slackened only mildly. For those who remained in agriculture, the heavy capitalization required higher technical skills. On the other hand, urban industry was no longer forced to make use of any labor it could get.

The spurt in educational attainment brought the rate of high school graduation from 52 percent in 1940 to three-quarters of the appropriate age cohort in 1965. GI bill-trained college graduates and skilled workers poured off the education and training assembly lines, and their younger brothers and sisters kept up the increasing trend to higher education. Not only could employers choose the better trained and educated, but because well-prepared persons were available, a technology was designed to use them instead of their poorly trained competitors. Postwar wage increases, resulting from the release of pent-up pressures, encouraged labor-replacing mechanization. Discoveries accelerated by war responded to the demands with electronic automation. Competition from low-wage countries put a further premium on increased productivity. As plants made obsolete by depression and war were replaced, smooth work flows required single-floor factories rather than the multistoried ones which had to be frequently abandoned. Continued prosperity and federal mortgage insurance policies ended the postwar housing shortage in a race to the suburbs. Industry followed in search of building space and

trained manpower. It was generally an economy of high opportunity and high displacement.

The New Immigration

The inner city places of the new suburbanites were filled, as they had been for decades, by new immigrants, but this time there was a difference. These were not immigrants from foreign nations of deficient opportunity; they were migrants from domestic economic and geographical sectors of little promise. They had been forced out of agriculture by rising mechanization or attracted out by the promise of higher urban income. Many of the 2.2 million who left the farm between 1950 and 1966 left through the door marked "education" and were quickly absorbed into the prosperous mainstream of American society. But others lacked that education and were marked as well by racial and language barriers. Widespread discrimination then blocked them from tantalizing but out-of-reach opportunities. An estimated four million Negroes left the South between 1940 and 1967 and headed for the cities of the North and West. In the process, the proportion of Negroes in city populations doubled to 20 percent over the same period.

In earlier years, low urban birth rates had aided the absorption of the surplus farm labor created in part by high rural birth rates. But in the postwar "baby boom," birth rates were high in the cities, too. Earlier immigrants had been themselves trapped by the slums, but their children had become "Americanized" and had moved on. Because of housing discrimination, the Negroes and other minority groups who were attracted to the cities during and after the war could not follow postwar jobs to the suburbs.

The numbers of jobs these migrants could qualify for with their deficient education and limited experience were declining as a proportion of all employment. Even those jobs which remained were kept out of reach by inadequate transportation systems. The growing occupations in the central city were white-collar and professional jobs held primarily by whites from suburban communities. Many of the remaining service jobs were poorly paid and unattractive but still fewer in number than those seeking them. Thus, the new migrants, forced out by the continued centrifugal force of agricultural technology, were trapped in what became central city ghettos. Cut off from jobs, they were left to the not so tender mercies of welfare systems which often seemed better designed to punish than to aid the poor. All too often, desertion of an able-bodied but unemployed male was required as the price of assistance to the family.

Most of the immigrants arrived with the triple educational handicaps of segregated, southern, and rural schools, with their children unprepared for the postwar education binge. Their skin color (or language barriers in the case of Mexican-Americans and Puerto Ricans) and lack of skills locked them in. With education-conscious parents flowing to the suburbs and the financial base for school support following, the inner city schools were deteriorating as their job became more difficult. Soon those who needed the best schools had the worst. It was no longer sufficient to "Americanize" the immigrant. He was already American. What he needed were the skills which these inner city schools had never been equipped to supply. Lack of education was only one of many handicaps of the ghetto resident. Its availability could not solve all his problems, but there was no solution in its absence.

Educationally, all was not well outside the growing ghettos either. All those displaced by agricultural productivity and declining employment in nonurban industries like mining and railroading did not become urban poor. Many remained in rural depression. Though 30 percent of Americans still live in rural areas, only one-fourth are engaged in agriculture and they are 43 percent of the total poor. Their inadequate schools became relatively worse as suburban schools progressed and rural areas stagnated and lost leadership. There was little or no job preparation for rural youth or adults except in the agriculture which needed them least. The suburban schools modified their old "selecting out" traditions only moderately, broadening their objectives to include a high school education for all, but acting as if all were college bound. In cities of moderate size, a tradition of good vocational education continued, though often marked by racial discrimination in some parts of the country.

As a generalization, in the rural areas, vocational education was limited in content; in the large central cities, it was poor in quality; in big city suburbs, it hardly existed.

Economic and Education Policy in the Fifties

These trends were aggravated by two policies of the 1950's. Efforts to restrain inflation led to economic growth rates slower than those necessary to simultaneously offset rising productivity and absorb a growing labor force. The economy, which had grown at nearly 5 percent per year between 1947 and 1953, grew only 2.4 percent per year from 1954 to 1960. The low birth rate during the 1930's restrained the pressures during the 1950's; but even then, with the labor force growing at an average of over one percent per year and output per manhour growing at nearly 3 percent per year on the average,

unemployment could only rise. And it did—creeping upward over each of the three recessions which marked the latter 1950's. A national economy, which now had to run faster just to stand still, really wasn't trying. In each recession it was the undereducated, inexperienced, unskilled, and the victims of discrimination who were the "last in and first out" and who bore the brunt of unemployment.

The other policy was rising support, particularly federal support, of higher education. It contributed to the educational opportunities of many, but made labor market competition tougher for those who lacked it. The rationale for the G.I. bill was replaced by international competition with the Soviet Union. By achieving nuclear weaponry and by grasping an early lead in space exploration, the U.S.S.R. demonstrated an unexpected scientific and engineering potential. The U.S. reaction was to make science, engineering, and technology primary objectives and "education for excellence" the motto. The National Science Foundation and the National Defense Education Act were the legislative vehicles at the federal level. For the nation as a whole, the budget for higher education increased from \$750 million in 1940 to \$4.5 billion in 1960, and the budget for all education, from \$3.3 billion to \$22 billion over the same years.

In spite of a minor broadening of vocational education in 1946, preparation for the occupations had low status. In 1954, abolition of federal aid to vocational education was even seriously recommended to the administration. This occurred at a time when female participation in the labor force was on a long steady rise and the labor force participation of males remained almost constant. Thus, almost the entire population entered the labor market at some time during their lives and needed skills for employment. Title II of the Vocational Education Act of 1946 (the Health Amendment Act of 1956) included provision of practical nurse education and was the only federal recognition of training for women during this period. It was a very profitable investment indeed.

Just as rising productivity freed labor from agriculture for industrial purposes, continued rises in industrial productivity allowed fulfillment of most of the basic needs for goods and left labor available for services. The period was marked by a continuing shift from a primarily blue-collar and agriculture, goods-producing economy toward a predominance of white-collar and service employment. Thus, a changing industrial and occupational mix and a more sophisticated technology sparked rapid growth in the occupations requiring the longest training time and the most advanced skills. At the same time, the proportion of skilled blue-collar jobs declined while that of many relatively low-skilled service jobs grew.

Reassessment in the Sixties

All of those trends continued through the 1950's, but they converged and were brought forcefully to the public's consciousness in the early 1960's. The immediate factors were the emergence of unemployment as a key public issue for the first time since 1930's; the influx into the labor force of the postwar baby crop; and the growing demands of minority groups for equal rights, equal opportunities, and equal results. Unemployment in the third post-Korean recession exceeded 8.1 percent (unadjusted for seasonality) in February 1961, cutting deeply enough into the politically potent segment of the labor force to demand and to get action. Whether the primary cause of unemployment was slow economic growth and a deficient rate of job creation or inadequate skills in an economy of abundant but high level employment opportunities became a topic of intensive debate. These discussions focused attention on preparation for employment and the need for remedial training programs.

As a resumption of economic growth plucked the experienced unemployed from the labor market, attention shifted to the flood of youth who, though better prepared educationally on the average than those already in the labor force, were entering too rapidly for quick absorption. Negro organizations which had congealed around equal access to education, public facilities, and the vote recognized that, without jobs and income, "rights" had little operational meaning. Deficient education in rural depressed areas and urban slums was among the many obstacles to realistic employment prospects. Numerous remedial manpower and antipoverty programs were introduced: the Manpower Development and Training Act, the community work and training program, the Job Corps, the Neighborhood Youth Corps, the work experience and training program, and others. Each was intended to solve some portion of the emerging crises but all stumbled over each other in the process.

Youth unemployment was triple the general unemployment rate; the rate for Negro youth doubled that. Measures for fighting ghetto and depressed area unemployment were unsatisfactory, since even in prosperous 1966, urban slums experienced unemployment rates averaging over 10 percent and reaching as high as 16 percent. Adding the underemployed and those involuntarily out of the labor force developed a "subemployment rate" averaging over one-third. The underemployment and low incomes in rural backwaters were equally depressing.

When the key role of education and training became widely recog-

nized, the schools came in for more than their share of criticism. Ironically, in many ways their problems resulted from their successes. Of the three out of four American youths graduating from high school, approximately half were going on to higher education and half of these were completing college. One result was a mobile, adaptable labor force which was the envy of other industrial as well as developing countries. But too little was being done to prepare for employment the majority whose formal education did not exceed the secondary level. The most serious problem was that the availability of large numbers of relatively well-educated people simultaneously encouraged the development of a sophisticated technology requiring higher education and skills and, therefore, enabling employers to demand and obtain these skills (Table 1). Those lacking education or training, or those whose education was obtained in defective or inadequate rural and ghetto schools, were simply left behind.

TABLE 1.—THE CHANGING EDUCATIONAL PATTERN OF MAJOR OCCUPATIONAL GROUPS, 1952 AND 1965

Major occupational group	Percentage distribution of educational attainment									
	Less than 8 years		8 to 11 years		12 years		13 to 14 years		16 years or more	
	1952	1965	1952	1965	1952	1965	1952	1965	1952	1965
All white-collar	4.9	2.8	22.7	16.0	37.5	40.1	15.7	16.7	19.2	24.4
Professional and technical	.6	.8	6.5	4.3	16.1	18.9	21.4	17.1	55.4	58.9
Managerial and kindred	9.8	6.0	32.4	23.4	33.6	36.9	13.2	16.0	11.1	17.7
Clerical and sales	4.1	2.3	24.8	19.4	49.7	54.7	14.5	16.9	6.9	6.7
All blue-collar	24.8	16.8	48.1	43.5	22.2	33.3	3.8	5.2	1.0	1.2
Craftsmen	17.7	12.0	47.9	40.6	27.2	37.9	5.7	7.5	1.4	2.0
Operatives	25.3	17.1	50.1	45.7	20.9	32.5	3.1	3.8	.7	.8
Laborers	42.6	28.4	40.9	42.4	13.8	23.9	1.7	4.3	1.0	1.0
Farm	42.5	30.8	38.0	40.7	14.4	22.3	3.6	4.5	1.5	1.6
Service	30.7	17.6	43.4	42.9	19.7	31.8	4.4	6.3	1.8	1.4

Source: Johnston, Denis and Hamel, Harvey, "Educational Attainment of Workers in March 1965." *Monthly Labor Review*, Washington, D.C., March 1966.

One graphic illustration is the following set of facts. Of a little over 1.1 million youths who graduated from high school and entered the labor force in June 1965, 12.4 percent were unemployed the following October. Of these, only 108,000 were nonwhite, but their unemployment rate was 27 percent. Of the 304,000 who left high school short of graduation, only 183,000 or 60 percent were in the labor force in October, and their unemployment rate was 20.3 percent. Only 52 percent of the 57,000 nonwhite dropouts entered the labor force, but their unemployment experience was no worse than that of the nonwhite high school graduates.

It was in this milieu that the Vocational Education Act of 1963

TABLE 2.—EMPLOYMENT BY MAJOR OCCUPATIONAL GROUP, 1964, AND PROJECTED REQUIREMENTS, 1975¹

Major Occupation Group	1964		1975		Percent change, 1964-75
	Number (in millions)	Per-cent	Number (in millions)	Per-cent	
Total employment	70.4	100.0	88.7	100.0	26
White-collar workers	31.1	44.2	42.8	48.3	38
Professional, technical, and kindred workers	8.6	12.2	13.2	14.9	54
Managers, officials, and proprietors, except farm	7.5	10.6	9.2	10.4	23
Clerical and kindred workers	10.7	15.2	14.6	16.5	37
Salesworkers	4.5	6.3	5.8	6.5	30
Blue-collar workers	25.5	36.3	29.9	33.7	17
Craftsmen, foremen, and kindred workers	9.0	12.8	11.4	12.8	27
Operatives and kindred workers	12.8	18.4	14.8	16.7	15
Laborers, except farm and mine	3.6	5.2	3.7	4.2	(2)
Service workers	9.3	13.2	12.5	14.1	31
Farmers and farm managers, and foremen	4.4	6.3	3.5	3.9	--25

¹ Projections assume a national unemployment rate of 3 percent in 1975.

² Less than 3 percent.

Note: Because of rounding, sums of individual items may not equal totals.

Source: U.S. Department of Labor, Bureau of Labor Statistics, "America's Industrial and Occupational Manpower Requirements, 1964-75."

was developed. The federal commitment to vocational education had been small (a little over \$50 million in 1962). State, local, as well as federal educational efforts emphasized the needs of the politically influential one out of six who would achieve a college education. Economists had discovered in the postwar period that education and training were key elements in explaining the process of economic growth. At the same time, the prospects were for continued expansion of those occupations requiring the most preparation and the relative decline of those within the reach of the undereducated and under-trained.

The time had arrived when all workers would need some kind of special training for a successful working life. Yet less than one-half of the noncollege trained labor force had any formal training for their jobs.

Salable skills in the new environment demanded intellectual as well as manipulative content. It was also an environment in which social

and political equality demanded realistically equal economic opportunities and results. For many, these were achievable only through compensatory education and training. It was toward these dimly perceived goals that the Vocational Education Act of 1963, the Elementary and Secondary Education Act, and other federal legislation supporting state and local education were aimed.

The Vocational Education Act of 1963

President John F. Kennedy took office in January 1961 convinced that the high level of unemployment was the most serious domestic problem facing the nation. One of his first acts was to direct the Secretary of Health, Education, and Welfare to appoint a Panel of Consultants on Vocational Education. As he told the Congress on February 20, 1961:

The National Vocational Education Acts, first enacted by the Congress in 1917 and subsequently amended, have provided a program of training for industry, agriculture, and other occupational areas. The basic purpose of our vocational education effort is sound and sufficiently broad to provide a basis for meeting future needs. However, the technological changes which have occurred in all occupations call for a review and reevaluation of these acts, with a view toward their modernization.

Findings of the Panel of Consultants

After deliberating for more than a year, panel members were convinced that two principal failures of vocational education restricted its ability to match the requirements of the fast-changing economy and technology to the vocational needs and desires of individuals: (1) lack of sensitivity to changes in the labor market and (2) lack of sensitivity to the needs of various segments of the population. More specifically, the panel identified the following limitations:

1. Compared with existing and projected needs of the labor force, enrollments of in-school and out-of-school youths and adults were too small.

2. Service to the urban population, with an enrollment rate of 18 percent in the high schools of the large cities, was grossly insufficient.

3. Most schools did not provide efficient placement services, and few schools had organized programs for systematic followup of students after graduation or placement.

4. Programs for high school youths were limited in scope and availability; about one-half of the high schools offering trade and industrial education had four or fewer programs, most of which involved a narrow range of occupations; high schools failed to provide training programs for groups or families of occupations.

5. Research and evaluation of programs were neglected.

6. Adequate vocational education programs for youth with special needs were lacking; in many respects, vocational education had become as selective as academic education with regard to accepting students.

7. In many states, youths and adults did not have significant opportunities for postsecondary vocational instruction; curriculums tended to concentrate on the "popular" technologies, particularly electronics; insufficient funds and restrictive federal legislation inhibited the development of certain types of programs, such as office occupations.

8. There was a lack of initiative and imagination in exploring new occupational fields. Severe limitations existed in regard to related training for apprentices, such as adequate classrooms and appropriate instructional equipment; craftsmen used as teachers for related training and skill training of apprentices and journeymen were not afforded adequate opportunities to learn modern instructional methods.

9. Many school districts were too small to provide diversified curriculums or proper supervision of vocational teaching activities.

10. Curriculum and instructional materials had not been developed for many of the new occupations.¹

In its recommendations, the panel recognized that the legislation under which vocational education had been operating since 1917 was responsible, to a large degree, for the slow responses to the changes in the labor market. The programs for which federal funds were available represented a very narrow part of the total spectrum of occupations. The panel also charged that the leadership in the area of vocational education had not shown sufficient imagination and initiative to adapt vocational education to the new challenges of a fast-changing economy.

¹ Department of Health, Education, and Welfare, "Education for a Changing World of Work," Report of the Panel of Consultants on Vocational Education, 1963, pp. 206-214.

Provisions and Objectives of the Vocational Education Act of 1963

Most of the changes recommended by the panel were enacted by Congress into the Vocational Education Act of 1963. Of all the panel's recommendations, two conceptual changes were most important. The first was the concept that vocational education must be redirected from training in a few selected occupational categories to preparing all groups of the community for their place in the world of work, regardless of occupation. Secondly, the panel insisted that vocational education must become responsive to the urgent needs of persons with special difficulties preventing them from succeeding in a regular vocational program.

The other recommendations of the panel recognized that, in order to carry out these two major concepts, redirection and reorganization of many services were essential, including research, teacher education, and school construction, with a new relationship between the federal government, the states, and the local communities.

The Vocational Education Act of 1963 declared that the purpose of the federal grants to the states was to develop an adequate vocational education system "so that persons of all ages in all communities of the state . . . will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interest, and ability to benefit from such training."

Vocational education was to be regarded as a unified program instead of a number of separate programs identified as vocational agriculture, home economics, trade and industries, distributive education, and so forth. The new definition of vocational education in the act specifically incorporated basic and general education as a prerequisite for useful vocational education by including "instruction related to the occupation for which the student is being trained *or necessary for him to benefit from such training.*" [Italics supplied.] The new federal funds—four times the amount authorized by the Smith-Hughes and George-Barden Acts—could be used for programs preparing individuals for gainful employment in any nonprofessional occupation.

The 1963 law provided federal funds to serve these four groups: (1) persons who attended secondary schools; (2) persons who want to extend their vocational education beyond the high school level; and such persons who have left high school before completion but are available for full-time vocational education before entering the labor

market; (3) persons who are already in the labor market—employed, underemployed, or unemployed—and need further training to hold their jobs, to advance in their jobs, or to find suitable and meaningful employment; and (4), for the first time, “persons who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program.” The 1963 law authorized federal grants, the construction of area vocational schools, various ancillary services and activities, work-study programs, and construction and operation of residential vocational schools.

For the first time, federal funds were set aside for research in vocational education. Ten percent of the total funds appropriated for each fiscal year were earmarked for grants to pay part of the cost of research and training programs as well as experimental, developmental, and pilot programs. A National Advisory Committee on Vocational Education was established, along with similar state committees, to enable vocational education experts and representatives from management, labor, and the general public to participate in the planning and administration of these programs. One of the responsibilities of the states under the state plan, which the Commissioner of Education had to approve before granting federal funds, was the requirement to review periodically the vocational education programs, thereby adjusting them to both current and projected manpower needs and job opportunities. Resources of vocational educators and the state employment services were to be combined in determining labor market needs and placing vocational graduates.

Less far-reaching but still important changes were several amendments to the Smith-Hughes and George-Barden Acts:

—States were permitted to transfer funds among categories and between the various laws.

—The definition of vocational agriculture was broadened to include training for any occupation related to agriculture in which knowledge and skills of agricultural subjects are required.

—Ten percent of the allocations for home economics had to be used in training for gainful employment in any occupation which required knowledge and skills in home economics.

—Funds allotted for trade and industrial education could be used for vocational education of young people in high schools without the limitation that at least 50 percent of the time be spent in specific occupational preparation.

—Funds could be used for full-time training of high school students for an occupation in the distributive trades.

—Area vocational education programs became permanent.

—Practical nurses' training programs became permanent and were extended to include other health occupations.

In many respects the Vocational Education Act of 1963 provided a totally new orientation for vocational education and the opportunity for greater flexibility in pursuing it. In eliminating the designated occupational categories, it became possible to offer instruction in all occupational fields. The way was cleared for making vocational education available to all persons in all communities, with particular emphasis on the special needs of youths who live in underprivileged conditions.

Implementing the Act

The 1963 act did not become operative until 1965. Therefore, any evaluation of its accomplishments must consider the short span of its actual operation.

Our primary task is evaluating implementation of the two major changes contained in the new act. Is vocational education now offering programs for all groups in the community, or is it preparing only some for selected occupations? Is vocational education now reaching the group of young people who are kept from acquiring occupational skills because of socioeconomic handicaps? Unfortunately, the data collection and program evaluation system is inadequate at all levels—federal, state, and local. Therefore, our judgment is based on limited data, augmented by our own experience and observations.

Groups and Occupations Served

Table 3 shows a sharp increase in the number of students enrolled in vocational education programs since fiscal year 1964. During fiscal year 1967, nearly seven million persons attended vocational education classes supported in part by federal grants. This is 50 percent more than in 1964, when 4.6 million persons were enrolled. However, in evaluating this enrollment increase it must be understood that federal funds for office occupations were provided for the first time in the 1963 act and first reported in 1965. This category accounted for an additional enrollment of 730,904 persons in that year. In 1966, this jumped to 1,238,043, or one-fifth of the total enrollment in the year. Fifty percent of the 1966 total were high school students, 42 percent were adults, 7 percent were postsecondary students, and less than one percent were persons with special needs (Table 4).

TABLE 3.—TOTAL ENROLLMENT IN VOCATIONAL EDUCATION,
FISCAL YEARS 1960-67

Fiscal year	Total enrollment	Percentage increase
1960	3,768,149	—
1961	3,855,564	2.3
1962	4,072,677	5.6
1963	4,217,198	3.5
1964	4,566,390	8.3
1965	5,430,611	18.9
1966	6,070,059	11.8
1967	6,880,000 ¹	13.3

¹ Projected.

Source: U.S. Department of Health, Education, and Welfare.

TABLE 4.—VOCATIONAL EDUCATION ENROLLMENT SUMMARY, BY
OCCUPATIONAL CATEGORY AND EDUCATIONAL LEVEL,
FISCAL YEARS 1964-66¹
FISCAL YEAR 1964

	Total	Secondary	Post- secondary	Adult	Special needs
Agriculture	860,605	501,819	292,907	265,879	—
Distributive occupation	334,126	55,132	2,688	276,306	—
Health occupation	59,006	5,478	41,698	11,830	—
Home economics	2,022,138	1,308,453	1,652	712,033	—
Technical occupation	221,241	20,755	71,824	128,622	—
Trades and industrial	² 1,069,274	249,119	53,633	766,513	—
Total	4,566,390	2,140,756	264,402	2,161,223	—

¹ Data furnished by the Division of Vocational and Technical Education, Office of Education.

² Reported as adult preparatory.

³ Includes 1,614 enrolled in fisheries occupation.

FISCAL YEAR 1966

Agriculture	907,354	510,279	5,987	390,388	700
Distributive occupation	420,426	101,728	15,833	301,116	1,749
Health occupation	83,677	9,793	36,496	37,065	323
Home economics	1,897,670	1,280,254	2,652	602,363	12,401
Office occupation	1,238,043	798,368	165,439	271,149	3,087
Technical occupation	253,838	28,865	100,151	124,730	92
Trades and industrial	1,269,051	318,961	115,539	803,901	30,650
Total	6,070,059	3,048,248	442,097	2,530,712	49,002

Compared with fiscal year 1964, the number of high school students in 1966 rose by 42 percent, postsecondary students by 70 percent, and adults by 17 percent. Prior to the 1963 act, federal funds were not available for training youths with special needs.

By occupational category, 31 percent of all persons were enrolled in home economics in 1966, 21 percent in trades and industries, 20 percent in office occupations, 15 percent in agriculture, 7 percent in

distributive occupations, 4 percent in technical occupations, and 1.5 percent in health occupations.

The increase in the enrollment in the seven categories of occupations can be summarized as follows:

Agriculture.—Enrollments in vocational agriculture increased about 5 percent between 1964 and 1966. The increase in agriculture was due, in large part, to the broadened purposes of the 1963 act which included training for any occupation requiring knowledge and skill in agricultural subjects.

More than one-half of the students trained for occupations in agriculture in 1966 were enrolled in high schools, and more than 40 percent were adults; 1966 data indicate that about 12 percent of the enrollments were in programs for off-farm occupations. The increasing complexity of modern farming has caused an increase in enrollments of adults and young farmers, especially in the area of farm business management. There has also been a considerable development of specialized programs involving agriculture. Such programs as ornamental horticulture and retail floristry are rapidly developing in the urban areas.

Distributive occupations.—Enrollments in distributive programs increased 25 percent in 1966 compared with 1964. Increases were stimulated by the provision in the 1963 act authorizing preemployment instruction and by the continued expansion of the cooperative education programs. Only one-fourth of the students in 1966 were enrolled in high schools; almost three-fourths were adults.

Health occupations.—National attention has been focused on the serious need for qualified personnel in the health occupations, and enrollments in health occupation programs increased 41 percent between 1964 and 1966. This increased enrollment, however, still falls far short of meeting the actual need.

Home economics.—Official data show enrollment in home economics decreasing by approximately 5 percent between 1964 and 1966. However, the indicated decline was apparently the result of reporting problems. Even accepting the official figure, the enrollments in this category still represent 31 percent of the total vocational education enrollments. Through the influence of the 1963 act which limited support to programs designed for gainful employment, there has been some redirection of efforts to develop such programs. However, the 1963 Act did not affect the allocation of 90 percent of the funds through the Smith-Hughes or George-Barden Acts. Of the total enrollment, two-thirds were high school students and one-third adults.

Office occupations.—Office occupations were included for the first time in vocational education under the 1963 act. Most schools have

offered limited courses and programs in this field in the past. Therefore, the enrollment increases are not necessarily limited to those now receiving vocational education who did not formerly receive vocational preparation. Support through the Vocational Education Act of 1963 has encouraged many office occupations classes to be re-oriented to more direct preparation for employment. It has also provided the resources for leadership and curriculum development. Two out of three office occupation students attended high school, one out of five were adults, and 13 percent were in postsecondary schools.

Technical occupations.—Technical education enrollments increased about 15 percent between 1964 and 1966. Considerable attention has been focused upon the serious need for technicians in the labor force. However, this category represents only 4 percent of the vocational education enrollments. In 1966, one-half of the persons enrolled in technical education programs were adults and 40 percent were students at postsecondary schools.

Trades and industries.—Enrollments in trades and industries programs were increased by about 20 percent in 1966 over 1964. Programs within this category represent a broad range of occupations. Increased demands for goods and services and a continuing shortage of skilled craftsmen have caused many schools to develop and emphasize programs in this category.

After many years of decline and standstill, the number of apprentices is now rising. On December 31, 1966, there were 207,511 apprentices in training as compared with 163,318 on December 31, 1963. Related instruction for apprentices offered at vocational high schools contributes to the increase of trades and industries students.

Two-thirds of the persons enrolled in trades and industries programs were adults, and only one-fourth were high school students. Less than 10 percent of the persons in this group attended a postsecondary school.

Enrollment by educational level has developed as follows:

Secondary schools.—At the high school level, enrollments tended to concentrate in home economics, agriculture, and office occupations. Eighty-four percent of the students at this level enrolled in these three categories in 1964. Total enrollment at the secondary level increased 43 percent between 1964 and 1966. On a national basis, about one in four secondary school students (grades 9 to 12) was enrolled in vocational programs. The basic gain for 1966 over 1965 was in office occupations, which were reported for the first time for 1965.

Postsecondary schools.—Enrollments in postsecondary vocational programs rose by more than 67 percent between 1964 and 1966. However, enrollment at postsecondary schools still constituted only

7 percent of the total number of vocational students, and post-secondary students were less than 4 percent of the population aged 18 to 21. Almost nine out of 10 students were trained in office occupations, in trades and industries, and in technical programs. Because vocational education at the postsecondary level is a recent development in many parts of the country, there is a great variation among states in its quantity and quality.

Adults.—While adults participating in part-time extension courses accounted for 42 percent of the total vocational enrollments, their number increased only 14 percent between 1964 and 1966. Excluding the apparently declining home economics enrollment, the increase was one-third. Adult enrollments amounted to less than 3 percent of the 25- to 65-year age group. Almost six out of ten adults were enrolled in home economics and trades and industries.

It is significant to note that with attention focused upon continuing education and the need for adult training and retraining, this category has shown the lowest percentage increase.

Persons with special needs.—Enrollments in this group amounted to only one percent of the total vocational enrollment. Of the 49,000 persons in special programs, two-thirds were trained in occupations relating to trades and industries and one-fourth in home economics. In 1965, 20 states reported no enrollments in this category, and 11 states still reported no enrollments in 1966. Enrollments of persons with special needs in vocational education were increased from 26,000 in 1965 to 49,000 in 1966. However, this number represented only a small portion of the population which should be served.

Summary

The enrollment data indicate that more persons were being prepared for work through vocational education programs than prior to the enactment of the Vocational Education Act of 1963. In 1966, 31 persons per 1,000 of the total population were trained or retrained for an occupation in a federally funded program as compared with 21 persons per 1,000 in 1961.

While in the school year 1963-64, one out of five high school students was enrolled in vocational training, in the year 1965-66, the ratio rose to one out of four students. However, the largest part of this increase must be credited to the new office occupations category. From 1964 (no office education included) to 1966 (office education included), enrollment rose by 1,504,000 students of whom 1,238,000 were persons who were trained in a business occupation. There is no way of knowing how many comprised a net addition to the enrollment in office education and how many simply represented a shift in accounting from sole state and local support to the federal grant-in-aid

program. Of the remaining increase of 266,000 persons—6 percent from 1964 to 1966—200,000 were trained in trades and industries occupations.

From 1964 to 1966, the number of vocational students in post-secondary schools rose by 907,000. Of these 907,000 students, 798,000 took training in business education. Of the remaining 109,000 persons, 70,000 students were enrolled in a trades and industries course.

One cannot escape the conclusion that the growth in enrollment, particularly at the high school level, reflects to a large degree the inclusion of persons who were not formerly counted as vocational students. Apparently, the breakthrough for training more persons for more occupations is yet to come.

As already indicated, no evaluative data are available to ascertain whether the programs offered to the increased student population have given the proper emphasis to the occupations for which suitable jobs are available.

Unfortunately, reporting by broad occupational categories does not reflect the development of new programs to meet new needs. There is, however, some evidence of redirection of vocational education. In agriculture the development of off-farm programs, and the gainful occupations programs developed in home economics reflect redirection. Another example of this redirection is the transfer of funds from the occupational categories contained in the Smith-Hughes and George-Barden Acts to the overall vocational purposes provided in the Vocational Education Act of 1963. These transferred funds amounted to \$2 million in 1965 and over \$16 million in 1966 (including \$200,000 transferred from the 1963 act to the Smith-Hughes and George-Barden Acts). However, the major emphasis appears to stress continuation of existing programs.

There is little evidence of much effort to develop programs in areas where critical manpower shortages exist. Examples are low enrollments in health occupations and technical programs. While the annual percentage gains in enrollments are quite large, the actual number of persons enrolled in these programs is extremely small in view of potential labor needs. It is also significant to note that these two programs are primarily postsecondary.

An apparent cause of low enrollments in these two categories is the restricted number of available programs. For instance, few programs have been developed for the broad range of health occupations. They have been primarily limited to vocational nursing and dental assisting. In view of the demand for medical skills, failure to inaugurate such programs is surprising.

Technical education programs have also been severely limited. It would appear that electronics programs have been heavily stressed, closely followed by programs in drafting and design. However, there is presently considerable need for programs extending over a wide range of technical occupations. Greater interrelation is needed between secondary and postsecondary technical programs to prepare students for "career ladders." This cooperation would enable the high schools to serve in part as feeder programs, thus reducing the duplication and overlap between the two levels.

We must allow more time, and we need more experience and data to evaluate the achievements of the Vocational Education Act of 1963 in behalf of those occupations most in demand in the labor market. However, signs of redirection, as provided in the 1963 act, are clearly discernible. Office education is now accepted as an integral part of vocational education. Training in off-farm occupations is becoming a growing part of agricultural education. Preparing for gainful occupations in home economics is now included in the program of a steadily rising number of schools. New occupations are being added to the programs offered in trades and industries.

Turning from occupations to groups to be served, the relatively low increase in adult enrollments is in large part caused by lack of local matching funds. It is also probably true that lack of local leadership prevents development of additional programs of sufficient quality to convince industry of the value of vocational education in retraining and upgrading their personnel. Many of these leaders have been drawn off to postsecondary programs, and many of the remainder have devoted their time to secondary school programs. In secondary schools, the growth in enrollment is still far behind the needs of the young people who should benefit from vocational education. More than one-half of the students still are being trained in the fields of agriculture and home economics, with less than 5 percent moving into fast-developing service and technical fields.

The number of persons enrolled in postsecondary vocational programs is still very small. The emphasis of the 1963 act in this area apparently has not been taken seriously. The growth of community and junior colleges and technical institutes has been substantial, although there are still many states that have not built postsecondary schools into their educational systems. However, there is no proof that the Vocational Education Act of 1963 has directly affected the development of postsecondary schools.

The special needs of those who cannot succeed in a regular vocational program is still being largely ignored or neglected by the educational community. This group requires special programs and

resources which take time to develop and implement. There is little indication that the problem is being faced.

There are several reasons for the slow implementation of this major new challenge in the Vocational Education Act of 1963:

—Manpower Development and Training Act and Economic Opportunity Act programs offer remedial help with little or no matching of federal funds, even though their total enrollment capacity is severely limited.

—There are still administrators in vocational education who regard programs for youths with special difficulties as merely remedial and not as the responsibility of the regular vocational education program.

—Since such programs are new in many states, state leaders in vocational education need assistance in setting up the proper machinery for training persons with special needs. (To overcome doubt, exchange of successful experiences and programs is vitally important.)

—The U.S. Office of Education has not given effective support and leadership to this provision in the 1963 act. The program is greatly understaffed. The Office of Education has not developed models or offered effective assistance to state and local agencies to dispel existing confusion as to what constitutes an effective program.

According to the U.S. Department of Labor,² 82 percent of the white high school graduates in 1965 entered the labor force, as did 79 percent of the nonwhites. This difference between the two groups is relatively insignificant. But, while 11 percent of the white youths were unemployed in 1965, the number of unemployed nonwhites was more than double (27 percent). Why were so many of the high school students seemingly trained for unemployment? Could their employability have been increased if special programs of training had been developed? There is little information available as to the nature of the few educational programs and curriculums especially devised for these youths. Full implementation of this major provision in the Vocational Education Act of 1963 is an urgent challenge to vocational education on all levels.

Despite increases in enrollment, only a relatively small number of those who are being trained for work acquire their skills through vocational education. Yet the five out of six youths who do not graduate from college should be prepared for suitable jobs. In addition,

² U.S. Bureau of Labor Statistics, "Handbook of Labor Statistics, 1967," p. 50 (Table 27, "Employment status of high school graduates not enrolled in college and school dropouts [age 16-24])."

the rapid changes which are taking place in industry would suggest that between 15 and 25 percent of the labor force would profit from training or retraining. To serve our expanding population, a great increase in the resources devoted to vocational education is required. The results of the GI educational bills demonstrate clearly that the economic return to society gained by improvement of our human resources is much greater than its cost.

Expenditures

The following appropriations have been provided by Congress for the operation of the Vocational Education Act of 1963:

Fiscal year:	
1965	\$123,500,000
1966	202,500,000
1967	218,230,000
1968	199,310,000

The total funds available under all federal vocational education laws (Vocational Education Act of 1963, Smith-Hughes and George-Barden Acts) came to the following amounts:

Fiscal year:	
1964	\$ 56,920,000
1965	140,460,000
1966	259,650,000
1967	257,380,000
1968	256,460,000

The increase in actual expenditures can be seen from the following table:

TABLE 5. VOCATIONAL EDUCATION EXPENDITURES, 1964-66

Fiscal Year	Total	Federal	State and Local
1964	\$332,785,000	\$ 55,027,000	\$277,758,000
1965	604,646,000	156,936,000	447,710,000
1966	799,895,000	233,794,000	566,101,000

From 1964 to 1966, total expenditures for vocational education increased almost 2½ times. Federal grants to the states rose over four times, and state and local expenditures doubled.

Prior to the enactment of the Vocational Education Act of 1963, the states and the local communities had been gradually but continuously increasing their share of support for vocational education. The fear that the greatly expanded portion allotted by the federal government would adversely affect the financial contributions of the non-federal sector has proven groundless. On the contrary, the 1963 act has stimulated a significant rise in state and local expenditures which more than doubled during the period 1964-1966 (from \$278 million in

1964 to \$566 million in 1956). Local communities have contributed the largest share to this considerable increase in the non-federal sector (130 percent compared to a 70 percent rise in state expenditures). One of the reasons for the slower response of the states is that many state budgets are planned for two-year periods. It is likely that the response of the states to the impact of the 1963 act will be felt more intensely in the budgets for the fiscal years 1967 and 1968.

The shortcomings of the reporting system greatly hamper a meaningful evaluation of expenditure statistics. The states report expenditures by occupational category under the Vocational Education Act of 1963 and Smith-Hughes and George-Barden Acts; the reports relating to the six purposes (the four groups served plus construction and ancillary services) are limited to the expenditures made under the Vocational Education Act of 1963. The two portions of the state report—by category or by purpose—cannot be reconciled. Since the states do not have to include in their report that portion of state and local expenditures which is above their matching requirements or which is spent for nonreimbursable programs, the total state and local expenditures are understated. Therefore, even the amount of total expenditures is not fully accurate because it does not include some of the overmatching of federal funds and does not reflect nonreimbursable programs.

In addition to these limitations, the state reports do not present data on the nature of the education programs; e.g., cost of specific courses within the categories, types of new programs, characteristics of the persons in the four groups, etc.

How has the increase in the financial support for vocational education affected the new objectives called for by the 1963 act? Do the increased expenditures reflect an adequate response to the needs of the people to be served? Particularly, do they meet the problems of the youth whose academic and socioeconomic obstacles make their employability so difficult?

The results of analyzing expenditure data coincide with the observations made on the impact and the meaning of the growth in enrollments. Looking at the expenditures for the years 1964 (before the 1963 act became operative) and 1966, by occupational category, we find that the portion of the funds spent for trades and industries, distributive, health, and technical occupations remained essentially unchanged, while the ratio for agriculture and home economics decreased by 15 percent. The remainder was taken up by the office occupations, which are now for the first time federally supported. Since the nonreimbursable expenditures for office occupations were not reported prior to the 1963 act, their present inclusion affects the

percentage distribution by category. The fact that the \$23 million of federal funds used for office occupations were matched in 1966 by \$148 million from state and local funds signifies the difficulty of meaningfully analyzing statistical data by category. To a large extent, this amount is not additional money but simply a continuation of expenditure now reported for the first time.

By and large, it appears that more money has been spent for all categories, without changing their relative importance. However, because of the lack of analytical data, and the structures of reporting within the traditional occupational categories, this statistical picture does not reflect the progress of those new programs which emphasize occupations offering growing employment opportunities.

Expenditures by purpose (the four groups to be served, plus construction and ancillary services) are reported only since 1965, the first operating year of the 1963 act. The states report data by purpose only on the funds spent under the authority of the Vocational Education Act of 1963 and do not include federal, state, and local expenditures by purpose used under the Smith-Hughes and George-Barden Acts. Therefore, the available data account for only three-fourths of the total expenditures.

In the school year 1965-66, one-third of all known expenditures were for training high school students, one-sixth for postsecondary students, less than 5 percent for adults, and only one percent for youths with special needs. The actual training of persons in these four groups took 53 percent of the total funds for which data are available, while 37 percent were expended for construction and 10 percent for ancillary services.

None of these expenditure data provides a clue as to "how" the money is spent or to the quality of vocational education. They do indicate, however, that vocational education has yet to give the necessary attention to such persons in our communities as the students who want to extend the years of their training and the adults who need updating of their present skills or retraining for new skills. The fact that only \$5 million (\$2 million from federal and \$3 million from state and local funds) was used for training youths with special needs dramatizes again how great are the obstacles to this major new provision of vocational education legislation. Changes in matching requirements and effective leadership on the federal and state levels must occur if this objective is to be reached.

Area Vocational Schools

The concept of an area vocational school which would serve more than one school district, would respond more rapidly to the demands

of the labor market, and would experiment more aggressively with new programs had gained the enthusiastic endorsement of the more progressive vocational educators prior to the passage of the 1963 act. The National Defense Education Act endorsed the concept but limited its support to the training of technicians. The Vocational Education Act of 1963 expanded the use of federal funds for the construction of area vocational schools to include training for any nonprofessional occupation.

Has this hope been fulfilled? Forty-five states reported construction of new buildings, additions, remodeling, or renovation during the fiscal years 1965 and 1966. Total expenditures for construction were over \$106 million in 1965 and about \$165 million in 1966. During the three-year period 1965-1967, 689 construction projects were funded: 214 school construction projects in 1965, 229 in 1966, and 246 projects were approved for 1967. In 1965 and 1966, 72 projects were identified as specialized high schools, 181 as departments of regular high schools, 113 as technical or vocational schools, and 77 as departments of postsecondary schools.

Due to the timelag between initiation of construction projects and completion, the impact of the additional facilities has not yet been reflected in enrollments. It can be anticipated that this impact will begin to show on the enrollment reports for 1967.

It is difficult to assess the qualitative influence of the construction program on vocational education beyond the extent to which additional instructional spaces are made available. However, improvement is clear in at least two aspects of the program: improvement of facilities through remodeling and renovation, and updating and upgrading of equipment used for instruction.

One major limitation of the construction program is lack of adequate financial resources to meet the intent and purpose of the act. The cost of merely renovating and modernizing existing facilities to bring them fully into line with contemporary industrial practice would require financial resources greater than the total funds presently available under the act. Another major limitation is that large cities have tended to be shorted in the allocation of construction funds in relation to their critical need for facilities. In view of this great need and the present limits on financial resources, careful judgment must be exercised in achieving the most efficient and effective use of such funds. It is questionable whether sufficient planning time preceded the early construction projects funded under the act. In their state plans, the states were required to submit guidelines for development of area school facilities. Several submitted copies of feasibility studies made to determine the need for establishment of area schools. How-

ever, review of the types of occupational programs for which facilities have been and are being constructed indicates that emphasis is on continuation and expansion of conventional programs. There is little evidence of planning for new and emerging occupations and for the critically short occupations.

Area vocational schools must be more than skill centers. They must be schools offering a unified program of general and vocational training responsive to the needs of the labor market in the area. In the rural districts, area vocational schools should prepare the youths not only for available off-farm agricultural occupations but should equip workers with skills needed in the urban centers to which many will move.

While the facility planning office in the Division of Vocational and Technical Education has expressed continuously the need to design facilities for maximum flexibility and adaptability, the states too often ignore this advice and construct facilities which establish rigid parameters on their programs for years to come. The addition to total vocational educational capacity is a real accomplishment, but it is still far short of the need, and the nature of much of the new capacity may turn out to be a long-run limitation.

Research

Between fiscal years 1965 and 1967, approximately \$39 million were expended for research, training, and demonstration pilot programs under VEA 1963. Of these funds, about 30 percent was expended for research projects, 10 percent for training, and 40 percent for demonstration and pilot programs. The remaining 20 percent supported the work of the two research centers established at Ohio State University and North Carolina State University and of the 44 research coordinating units established in the states.

Research by its very nature requires considerable "leadtime" to initiate a program, to establish priorities, to conduct the research, to report results, and to implement the findings. Therefore, it is far too early to evaluate the impact of the research funded under the 1963 act. However, there is genuine concern at both the state and federal levels about the nature and value of that research.

New responsibilities were given by the 1963 act in areas in which there was little background experience to be drawn upon. Therefore, all levels of administration have desperate need for answers to perplexing problems and are searching for the most efficient and effective means of implementing programs consistent with the intent and purposes of the act. Failure to find all of the needed answers has resulted in disappointment at the failure of research to point the way, and has resulted in recriminations among administrative levels and units.

Probably the most significant accomplishments of the research effort have been establishment of a recognition of the need for research, identification and preparation of individuals capable of carrying out the research, and establishment of administrative procedures which will achieve the most economical benefits from these expenditures.

The most frequent criticism of the research program relates to the lack of tangible evidence of impact made on the vocational programs as they currently exist and the lack of impact on the development of new programs and methods. In this relationship two specific limitations need be mentioned: (1) the lack of dissemination of results, and (2) a failure to interpret the results of completed research in operational terms.

A very peculiar legal interpretation was largely responsible for the first limitation. Because Section 4(c) of the act did not specifically mention dissemination, HEW legal counsel concluded that funds under this section could not be used for that purpose. There is little evidence that the Program Planning Branch of the Division of Vocational and Technical Education has made any serious attempt to develop operational programs from completed research, nor is there evidence that the Division of Comprehensive and Vocational Education Research has made any serious effort at interpreting the research results into operational language.

At the operational level, criticism is aimed at an apparent lack of research into operational problems. This is countered by the assertion that operational problems should not control research, but that research should focus upon long-range permanent solutions to problems. In reality, both points of view merit consideration.

While inadequate staffing in both administrative units is partly responsible for the limited operational impact, there is also evidence of lack of administrative cooperation between the research division and the operating division. Under no circumstances should one be under control of the other, but every effort should be exerted to bring about a complementary liaison between the two units. Research must not be limited to merely operational problems, but research which does not affect operations is of little value.

Work Experience Programs

There currently exist several types of work experience programs related to vocational education. The two most common are the cooperative education program and the work-study programs as defined in Section 13 of the Vocational Education Act of 1963.

In the cooperative education programs, the students work part time and attend school part time. The arrangement for employment

is a responsibility of the professional staff. The purpose of the program is to offer the student a meaningful work-experience combined with formal education in order to develop simultaneously knowledge, skills, and appropriate attitudes.

Work-study programs as defined in the 1963 act serve, primarily, to aid needy students. Such programs are limited to students between the ages of 15 and 21 and to employment in local educational agencies or other public agencies or institutions.

A distinction between the cooperative education and work-study program is that the first is a planned part of an educational program, while the second serves primarily to offer financial aid. In the cooperative program, the work experience is supervised by the educational staff. In work-study, the work experience is most often supervised by the nonprofessional staff, thus losing much of the potential inter-relationship.

Allocation of federal funds for work-study programs was made on a nonmatching basis for fiscal years 1965 and 1966. Beginning with fiscal year 1967, the states were required to expend \$1 for every \$3 of federal funds. Through the stimulation of the 1963 act, the states made concerted efforts to expand the work-study programs. In 1965, \$5 million in federal funds were made available to the states for this purpose. The appropriation was increased to \$25 million in 1966, but it was reduced to \$10 million in 1967 and entirely eliminated from the President's budget for 1968. The actual total expenditures (federal, state, local) came to \$2.8 million in 1965 and \$20.9 million in 1966.

The rise and fall of the budget is paralleled by the program. Enrollments reported by the states increased from less than 19,000 students in 1965 to over 68,000 in 1966. The effect on enrollments due to the cutback of funds is not yet known. However, as a consequence of the increased matching requirements effective beginning with the 1966-67 school year, there were fewer work-study programs than were offered during the preceding year. It can be assumed that they will be further reduced by the deletion of funds.

A preliminary report³ of a nationwide study on work-experience programs identifies a total of 4,800 concurrent work-education programs in the United States. Distributive education has the largest number of programs and the largest number of students enrolled. The lowest enrollments were in home economics. There were 2,451 schools which had cooperative education programs which did not have

³ "Concurrent Work-Education (Programs in the 50 States)," William J. Schill, Director. Initial Report USOE Project 6-2851.

work-study programs, and 1,923 schools that had work-study but not cooperative programs.

A significant achievement of the work-education program is the removal of the artificial barriers which separate work and education. The establishment and continuation of work-education programs require educational staff involvement with industry personnel. Through this interaction the needs and problems of both are made known and greater understanding takes place. In addition to making curriculum revision more rapidly reflective of current occupations, the programs have great value in providing students with the proper attitudes for the work environment.

An important limitation of the work-education programs has been the lack of financial resources for expansion. Another limitation has been the difficulty of obtaining suitable jobs from employers and of overcoming the efforts of occupational groups to protect themselves from what they consider to be competitive threats to their employment opportunities.

Critics of the work-education programs argue that Economic Opportunity Act programs such as the Neighborhood Youth Corps are sufficient to provide jobs and, therefore, work experience for those who otherwise would not remain in vocational programs. However, these are remedial in nature and are based on family income criteria. Thus far, EOA work stations appear to be more useful for income than experience purposes, and potential enrollment far exceeds their current resources. There are great advantages in training youths through work-experience as part of regular vocational education programs. There are also many youths in need of income to enable them to further their vocational education. These two needs can best be met by merging and expanding the cooperative work-experience and work-study concepts.

Residential Schools

Residential schools were authorized by the Vocational Education Act of 1963, but their feasibility or desirability could not be proven, since Congress never appropriated the funds to establish such schools. However, experience with the Job Corps, a few residential programs run by vocational educators under MDTA, and residential experience in junior colleges demonstrates that there are those whose home and neighborhood environments make training away from home desirable. Moreover, a large number of potential students live in isolated areas of limited population where a meaningful vocational education curriculum is impossible. The total enrollment in Job Corps Centers and MDTA residential projects meets only a fraction of the need and

each of these programs is limited in its clientele. Failure to carry out the original intent of the act was a mistake which should be remedied by making residential schools widely available.

Administrative Leadership

Redirection of vocational education under the 1963 act required administrative changes adapted to the new objectives. However, changing a 50-year-old administrative structure is extremely difficult. The administrative structure for vocational education within the U.S. Office of Education was reorganized, following the act, from an occupational fields orientation to one of unified services directed at meeting the new purposes and responsibilities of the act. The states have been much slower in responding to the need for administrative reorganization, and most still function on the occupational category basis.

In view of the complex problems of implementing the new law and the limited professional staff available, the Office of Education deserves considerable credit for its accomplishments. Another significant achievement made possible by the 1963 act was an increase in the opportunities for employment of administrative personnel at the local level. Where this has occurred there has been a significant improvement in the quality of vocational education.

On the other hand, partially because of acute staff shortages, the Office of Education has continued to act primarily as a regulatory or approval agency for proposals submitted by the states. There is little evidence of long-range planning by the federal agency to stimulate and help the states move in new directions and make qualitative improvements of vocational education.

One of the other inhibiting factors at the federal and state levels is lack of breadth in administrative staffs. It appears that little attempt was made to bring professional personnel representing other disciplines into administrative positions at any level. In view of the new responsibilities under the act for persons with special needs and the training and retraining of adults, there is need for professional personnel in psychology, sociology, economics, other social sciences, research, curriculum development, and other fields.

Another problem with the federal administrative structure has been its almost continuous reorganization. There have been seven internal reorganizations affecting the administration of vocational education during the span of the 1963 act. While reorganization to meet the requirements of the act was proper and necessary, as a continual process it has had a demoralizing and disruptive effect upon the staff.

The State Plan and state program of projected activities serve as the contractual tie between the individual states and the federal government. The process is subject to a number of major criticisms: (1) the lack of participation by the local school systems; (2) the narrow and restrictive interpretation of certain functions and aspects of the Vocational Education Act; and (3) the restrictive nature of many plans for teacher certification which hindered the staffing of new programs.

A particular problem of the state plan and the program of projected activities is the confusion about their purpose and role. In the state plan, contractual requirements are often confused with program planning. The state plan should become the legal document of mutual accord between the federal and state governments. The state program of projected activities should serve as the planning document, describing both short- and long-range objectives and programs.

The Vocational Education Act of 1963 gave the U.S. Commissioner of Education broad powers in approving the state plans and, thus, in asserting dynamic leadership in the direction of vocational education and the implementation of the Vocational Education Act of 1963. Understandably, in the first years the Commissioner could not carry out these powers in full measure. However, the extent to which the mandate of the Vocational Education Act of 1963 will become a full reality will greatly depend on the affirmative actions the Commissioner will take in the future.

Another basic deficiency in overall administration of vocational education is caused by the conglomeration of laws and federal agencies responsible for closely related aspects of vocational education. Lacking is an effective structure for coordinating the various acts. This has resulted in much confusion at the state and local levels. The differences in matching requirements and variations in administrative functions have resulted in competition among agencies and have caused local school agencies to seek the most favorable funding before implementing programs. The side-by-side continuation of three separate vocational education acts with inconsistent philosophies and confusing overlap in requirements seems an anachronism. The proliferation of programs and agencies in vocational education, training and retraining, and related areas is an administrative burden which should be removed by consolidation.

Relations with the Federal-State Employment Services

The 1963 act requires that state plans and projected activities include provisions for cooperative arrangements with state employment service offices for occupational and labor market information, voca-

tional guidance, and placement services. Though some preliminary "sparring" occurred, little progress was made during the first two years. Educators accused the employment services of failing to provide required labor market information. The latter countered that the educators had yet to define their needs. The employment services also complained that they could not supply additional services within the constraints of their existing budgets, yet there was no provision for transferring of vocational education funds or purchase of the necessary services.

Progress was even slower in vocational guidance and placement services. The employment service has had for many years a cooperative school program wherein employment service personnel visit high schools to test and counsel those members of senior classes not planning to enter college. Beyond this continuing program, no significant efforts were made to establish a special relationship with vocational education. Vocational instructors customarily place their better students through informal industry contacts. The remainder, usually a minority, seek their own jobs by a variety of methods including registration at the public employment service. The employment services occasionally "outstation" personnel in junior and community colleges to provide placement services but rarely in high schools and vocational schools. Thus, the special guidance and placement assistance contemplated by the act was not provided to vocational education students or graduates.

Although excellent relations between local employment service personnel and local vocational educators exist in some areas, relationships are nonexistent in others. The 1963 act itself appears to have had little if any effect. The Manpower Development and Training Act, on the other hand, is having a notable impact. Whereas the VEA 1963 directive was a pious hope with no built-in leverage, MDTA funds could flow only if employment service personnel identified eligible trainees and potential job openings and if vocational educators established courses to match them. More recently, this relationship has been elevated into the Cooperative Area Manpower Planning System which brings together into a common area, state, and regional planning effort all agencies involved in remedial manpower and antipoverty programs. At the same time, MDTA brought about the establishment of state and local manpower advisory committees, a few of which are beginning to look beyond the manpower development and training program to the totality of community and state manpower problems. In Iowa, MDTA research funds were used to establish an overall state manpower development agency. Another

was established in West Virginia by the state legislature. Other states are currently at various stages in establishing similar committees.

Although the Vocational Education Act can claim little credit for these improvements in local relationships, significant developments are currently underway at the federal level. In 1966, the Department of Labor took the initiative by funding a study under the direction of Dr. H. Ellsworth Steele of Auburn University. This study assessed the status of existing relationships, identified the services needed from the employment service, and made recommendations to meet the needs. The report pointed up many sound local relationships but also found that some state vocational agencies had already begun to set up manpower survey units which duplicated employment service activities or capabilities. Much of the needed information was already available from the employment service but was unknown for lack of communication.

The Steele report led to the establishment, for the first time, of formal vocational education-employment service relations at the federal level. A joint Employment Service-Office of Education Liaison Committee is working toward a joint occupational taxonomy, exchange of information on occupational requirements, and administrative procedures for transfer of data. Study is underway to ascertain the need for broadening the employment service cooperative school program to cover vocational and technical schools and to assure employment service representation on state advisory councils and vocational research coordinating units.

Joint regional meetings are in the planning stage, and the USES has requested officially that its state agencies commence immediately to fulfill information requirements not previously met. The need for budget and staff resources to support employment service activities serving vocational education remains a serious obstacle. However, the likelihood is that the increased federal cooperation and activity will soon lead to improved local relations.

Reporting and Evaluation Requirements

The 1963 act required states to conform to whatever record keeping and reporting procedures the Commissioner of Education might direct and required them to evaluate their own performance periodically. An advisory council on vocational education was also to be appointed in 1966 and each five years thereafter to review the administration of vocational education programs under the act and to make recommendations for improvement. All are inextricably re-

lated. The shortcomings of the latter are primarily attributable to the failure of the former.

As the first advisory council on vocational education, we have found it impossible to determine to our full satisfaction what has occurred under the act. The states may be faulted for the inadequacy of their own internal evaluations, but the primary responsibility must rest at the national level. Despite the long foreknowledge of the 1966-67 assignment, no significant studies were undertaken with adequate leadtime to produce data for the council's needs. The regular reporting system was inadequate for the purpose. No significant changes were made in the reporting forms which were designed originally to ascertain whether the states matched the federal grants-in-aid and spent the monies within the appropriate occupational categories. The only significant change in the reporting system as a result of the Vocational Education Act of 1963 was the reporting of expenditures and enrollments by service groups. Thus, a reporting system originally established for regulatory purposes was expected to serve as the basis for evaluation—a task for which it was inadequate.

Numerous limitations of the present reporting system could be cited, but a few will suffice. Although the act's philosophy refocused effort on people instead of occupational groups, the statistics provide no demographic characteristics beyond the sex of the students. At a time of great concern with racial discrimination and poverty, no information is available on age, race, education, and family income. Although groups with special needs were supposed to receive special treatment, there are not data to identify them nor to describe the content of courses designed for them. There is no way to determine if the act was successful in its intent to encourage training for new occupations. Enrollment data do not indicate the extent of student involvement. Participation for one or two days, a week, or a few months is not differentiated from near full-time or full-year attendance. Data needs are qualitative and descriptive as well as quantitative. The quality of teachers, equipment, and course content cannot be determined from the reporting system. Comparisons of relative enrollments and quality and quantity of vocational education in rural areas, small and medium size cities, suburban areas, and large cities cannot be made. The only common measure of results is a report of uncertain validity from the vocational teacher in September on the placement of students who complete a course the previous spring. An 18-month lag for publication of data appears to be standard. Not only is the extent of non-federally supported vocational preparation unknown, there is even great uncertainty as

to the total amount spent on federally reimbursed vocational education. Since states often overmatch the federal dollars, it appears to be common knowledge that much of the total state expenditure goes unreported.

There are, of course, many problems involved in the establishment of an adequate reporting and evaluating system. Some are simple technical problems. Others, stemming from the lack of staff and budgets at federal, state, and local levels, can be solved with money. In particular, if the federal government wants accurate and adequate reports and evaluation, it will probably have to provide funds to the USOE for this purpose. It should not expect to withdraw funds from basic support budgets for reporting. The more important problems, however, are those of politics and leadership. Traditions of state and local independence in vocational education are strong and sensitive, but the reporting of pertinent data need not violate them. Actually, many states already accumulate most of the needed data in order to manage their own programs and need only to be asked for it. The Commissioner of Education already has legislative authorization to demand it and sufficient sanction to get it, but this authority remains unused.

The gaps in statistical data, the deficiency in depth of reporting, as well as the lack of adequate standards for evaluation of performance, are not merely mechanical or technical problems. They are actually problems of leadership. Without accurate and adequate information, administrators cannot give direction. And giving clear direction as to how to carry out the objectives of the Vocational Education Act of 1963 is the responsibility of the leaders in vocational education.

It is the responsibility of the federal leadership to: (1) carefully design a system which will yield the pertinent information with a minimum of expense or burden to state and local educators; (2) sell the latter on the need for the data; (3) see that it is obtained accurately and on time; and (4) see that it is used for meaningful evaluation. This process undoubtedly would be expedited if part of the cost of data collection could be paid to the states.

Advisory Committees

Federal and state legislatures, industry and labor representatives, and many school administrators have recognized the benefits of advisory committees in developing effective vocational education programs. For many decades, *ad hoc* committees, particularly on the local level, developed curricula, evaluated school programs, and increased the interest of the community in vocational education. The

Vocational Education Act of 1963, however, added new functions to the role of advisory committees. In step with the policy of involving the economic groups of the society in shaping policies, planning and implementing training programs, the 1963 act set up a National Advisory Committee on Vocational Education. The act also made mandatory the creation of state advisory councils in all states where "persons familiar with the vocational education needs of management and labor in the state" were not represented on the state board which administers vocational education. To the National Advisory Committee was assigned the important responsibility of advising the Commissioner of Education on all policy matters, including preparation of general regulations for all federal vocational education programs.

How seriously have the administrators of vocational education taken this mandate of the Vocational Education Act of 1963?

No reports are available that permit an evaluation of the contributions that the new boards have made. On the local level, the old established *ad hoc* committees have continued to give valuable assistance to the planning and administration of vocational education programs, but in many states they have yet to come to grips with their statutory duties.

The responsibility for the failure of these committees to function properly rests, to a large extent, with the U.S. Office of Education, which has not learned how to use advisory committees successfully for the purpose of reviewing existing programs and policies, and for originating new programs. Basically, it is the role of the Office of Education to give leadership to the advisory committees on the national as well as on the state levels and to stimulate interest in the effective use of committees for planning, coordination, and evaluation of programs.

The National Advisory Committee on Vocational Education will not function properly unless full-time staff is assigned to coordinate its work with the Office of Education and to relate continuously the work of the Office to the Board members. The state advisory committees will not function properly unless the Office of Education gives serious leadership to the states through guidelines and publications, including "how-to-do-it" instructions.

Advisory committees should not be regarded as a chore to which the administrators give lipservice. They are conveyor belts which transmit the interest and needs of the "customers" to the "producers"—administrators, policymakers, and teachers.

Supporting Services

The Vocational Education Act of 1963 requires that at least 3 percent of each state's allotment be used for ancillary services to assure quality in all vocational education programs. Actually, the states spent almost 10 percent in 1966 for this purpose, a total of \$49,663,000 in federal, state, and local funds. The 1963 act defines ancillary services in a very broad sense, listing specific examples: teacher training and supervision, program evaluation, special demonstration and experimental programs, development of instructional materials, state administration and leadership, and "periodic evaluation of state and local vocational education programs and services in light of information regarding current and projected manpower needs and job opportunities."

Here again, the reporting system is not very helpful in evaluating the effects of the ancillary services and activities on the quality of vocational education.

The number of vocational teachers (full-time and part-time) increased from 109,000 in 1965 to 124,000 in 1966; a gain of 16.6 percent. The increase is promising, but estimates are that a 150-percent increase during the next decade will be needed to meet projected enrollments. This, along with the continuing need for upgrading present teachers, is a major challenge.

Although the states and, particularly, local school administrators are now giving greater attention to vocational guidance and counseling, the size of the guidance staff in vocational education is still much too small. Only one out of ten academic high schools is without a counselor, but only half the vocational schools furnish guidance and counseling services. Only one-half of the states have guidance personnel on the staffs, usually one person to each state. The guidance and counseling functions at the U.S. Office of Education are also greatly understaffed.

Adequate counseling services are indispensable to high-quality vocational education. Little progress has been made since the enactment of the 1963 act toward offering vocational students the same services that are provided—at least in some states—to the college-bound students. Practically no guidance and counseling services are provided to out-of-school youths and adults and very little to youths with special needs. However, the critical need for more counseling and guidance for vocational students at all levels should not be an excuse for creation of a separate counseling and guidance system. What must be available are well-trained counselors familiar with

the full range of opportunities open to all youths, not those so specialized that they tend to bias students' decisions in one direction or another.

Lack of data prevents evaluative statements as to the impact of the 1963 act on most of the other supporting services for which federal funds can be used. In some states significant demonstration and experimental programs on the local level are now in progress. Important experiments and demonstrations are also supported by other programs such as those in MDTA skills centers. Some progress is being made in preparing curricula and instructional materials. No definite information is available as to the impact on the quality of programs.

Research projects funded by the Division of Comprehensive and Vocational Education Research have investigated problems and practices of various ancillary services, including teacher training, curriculum development and administration, and leadership in vocational education. The Research Division also has funded several national seminars for leaders in vocational education; for example, for guidance personnel and for teachers and administrators in several occupational categories.

The Impact of the Vocational Education Act of 1963

In summing up accomplishments, or their lack, one constantly must be aware that insufficient time has passed to permit the new law to be fully implemented. The impact of changes is clearly visible in some areas, and, thus, credit should be given for achievements. In other areas, the objectives of the new law have not yet been accomplished, and a faster pace is in order.

The Vocational Education Act of 1963 introduced two new basic purposes into the nation's vocational education system: First, vocational education was to serve the occupational needs of all people in the community through unified programs rather than to train them in separate programs for selected occupational categories. Second, a new group was to be served—the persons who could not succeed in a regular vocational education program because of educational, socio-economic, and other obstacles. There is little evidence that either of these major purposes has been accomplished so far.

The second main objective—to serve the youths with special needs—has hardly been touched.

The box score on other charges has been considerably higher: Home economics has made real progress toward a greater concern for gainful employment; research in vocational education has begun; area schools have been rapidly established; business education has

been accepted as an integral part of vocational education; time requirements for vocational programs have been brought more into accord with needs, instead of being rigidly prescribed; a start has been made toward effective relationships with the employment service; work-study programs have been successful; a federal Advisory Committee on Vocational Education has been established; states have more balanced representation on their boards of vocational education and their advisory committees; and vocational guidance has been improved in quantity and quality.

The Status of Vocational Education

The achievements and limitations of the Vocational Education Act of 1963 discussed above suggest significant improvements in the status of vocational education in the United States. They also indicate the continuance of substantial problems. Because of the absence of information on who receives vocational education, how much they receive of what kind, what its quality is, and what happens in the lives of people as a result, we have been unable to complete satisfactorily our assignment to appraise the results of VEA 1963. However, we have access to a number of limited studies, and we aggregate among us considerable experience with vocational education in various parts of the country and under varying circumstances. Quality, quantity, and practice differ greatly by state and community and across rural, suburban, small city, and large city areas. Generalizations, however, can be made. One distinct generalization is this: In vocational education, the federal government gets greater results per dollar spent than in any other occupational preparation program. The 100,000 vocational teachers are one of the nation's greatest assets, and the work they do must be expanded, as well as improved. What follows is our best judgment of the general status of vocational education in the United States of America on January 1, 1968.

Who Gets Vocational Education?

Overall enrollments increased from 4.5 to 6 million between fiscal years 1964 and 1966, but secondary level enrollment constitutes only a quarter of the total high school enrollment of the nation, even though five out of six youths never achieve a college education. Less than one-half of the non-college-trained labor force was found by a 1964 Labor Department survey to have had any formal training for current jobs. Less than 4 percent of the 18 to 21 population were

enrolled in postsecondary full-time vocational education, with less than 3 percent of the 22 to 64 population involved in part-time adult extension courses. Yet we are convinced that the time has arrived when almost every person requires some formal preparation for employment and most will continue to need some type of continuous upgrading.

As mentioned in preceding sections, even more troubling is the fact that vocational education still appears to suffer most in quantity and quality for those who need it most. Rural high schools tend to be too small to offer more than agriculture, home economics, and office education. Most of their students will ultimately seek urban jobs but have no preparation for urban life. This deficiency has been particularly serious for rural southern Negroes whose resultant plight can be observed in most large cities of the land. Generalized programs of orientation to the world of work could be provided within the resources of small rural schools, but a satisfactory solution will require consolidation of schools and, in some parts of the country, residential schools.

Vocational offerings also tend to suffer in both quantity and quality in the slums of large cities if for no other reason than that most school offerings suffer from overcrowding, deficient personnel, inadequate budgets, and deteriorated facilities.

Many suburban high schools still assume that all students will pursue a four-year college degree. Their vocational offerings tend to be high in quality but often deficient in quantity. Thus, as a general rule, adequate vocational offerings for secondary school youth are found most frequently in cities of small to medium size faced with none of the crushing rural and slum problems.

Viewed by sex and age groupings, vocational education opportunities are currently most inadequate for women and out-of-school youth. There are too few meaningful occupationally oriented public school courses and programs available for any adult, most evening courses having more of a hobby orientation. Proprietary school courses are available in some areas but not in others, and tuition is an obstacle. For women the problem is worse because of the limited range of courses offered even for girls in school.

A third of our labor force is made up of women, most of whom are expected to cope with the difficult task of maintaining a home and a career simultaneously. Women predominate as students in practical nursing, business education, and the homemaking programs. They are reasonably well represented in distributive education. They rarely participate in agriculture and trade and industrial education programs.

Since employment of women is high in manufacturing and service occupations, vocational education must strive to meet their needs in these fields. The first step is for vocational educators to become aware of the available employment opportunities for women in many fields, arrange courses to meet their needs, and structure existing courses to attract their enrollment. The second step is for counselors to encourage their participation outside the traditional areas. Research clearly indicates that women profit even more from vocational education than do males.

The persons least well served by our society and by our education and training system are those out of school and under age 20. Graduates of the general high school curriculum, graduates of the college preparatory curriculum who did not attend college, and graduates of the many vocational curricula which have lost touch with the world of employment have nearly as many problems as the people we label "dropouts."

It is becoming increasingly difficult for persons under 20 to obtain a meaningful job. Equally demoralizing is the fact that the employment they can get is often temporary and usually low paid. The prospect for young persons in the future is even more bleak, for employment of youths is almost certain to become more difficult.

We have begun to see some of the explosive social consequences of a large group of unemployed and underemployed youths between 16 and 20. They have been heavily involved in urban riots, and, in rural and urban areas alike, they are responsible for far more than their share of crime and vandalism. Costs of their depredations are astronomical in property values, and costs of human suffering are incalculable.

The only practical solution seems to be to keep youths occupied in worthwhile activities until they are ready for employment. For much of this group, the best place is school. Yet this is the group the current vocational system is least prepared to serve. Such remedial manpower and antipoverty programs as the Manpower Development and Training Act and the Job Corps can currently enroll only tens of thousands when hundreds of thousands need help. The schools must have help to meet this massive need.

Special attention to those with academic, socioeconomic, and other handicaps was one of the new directions of the act, but as indicated above, this is not among the impressive accomplishments. Fragmentary information suggests, and experience confirms, that vocational students tend to be substantially below other students in general capability. Yet too often the better schools attempt to up-

grade their student bodies and enhance their prestige, not by providing special help to those who need it, but by actually eliminating such students by more stringent requirements.

In some school systems, vocational education serves as a dumping ground for academic misfits. In others, where vocational education has a strong voice in policy determination, it tends to reject these misfits, so that they are placed in the general curriculum which prepares them for nothing. As a general rule, the academically able students are eligible for vocational education, but the least able are rejected. These able students are the very ones employers seek for industrial training programs. The students who are left out are those with low motivation and poor preparation, though these are two handicaps with which vocational education copes well. Many students come from homes which do not stress verbal skills. Vocational education places emphasis on doing, and provides strong motivation to learn those academic skills which are needed for occupational success. Here many students learn for the first time that reading, arithmetic, and report writing have utility in the real world.

We believe three actions are essential if youths with academic, socioeconomic, or other handicaps are to be served well: First, a substantial portion of vocational education funds must be reserved for the hard-to-reach and the hard-to-teach. Second, admission requirements for vocational education must be based on ability to succeed in a field of work, rather than on academic grades or rank in class. Third, we are firmly convinced that the general curriculum as it is narrowly construed in many areas must be abolished. It promises to prepare students generally for life, but, in fact, it prepares them for nothing. It is a trap for those students who are not admissible to the college preparatory or vocational curriculums—a trap from which the students can escape only by dropping out or by graduating with no preparation for work or life. We repeat that we support general education, but we cannot support the general curriculum.

The problems of youths with academic and socioeconomic handicaps are amplified for members of minority groups. Limited information indicates that, in large cities, a higher proportion of Negro than white youth tends to be enrolled in vocational courses, while the opposite is true elsewhere. However, given their gross underenrollment in college, the occupational training needs of Negro and other minority youths are far greater than these enrollments could meet. Some of the higher proportionate, large city enrollments may also stem simply from the "dumping ground" proclivities of some academic educators applied to youths who start with the handicaps of inadequate education in the home and built-in disincentives in the

streets and the elementary schools. Although there are no hard data, experience suggests underrepresentation of Negroes in vocational courses in rural and small city schools and gross underrepresentation in postsecondary vocational education and adult extension courses. Data from the Civil Rights Commission indicate that most vocational education is provided in *de facto* segregated schools. Observation indicates a tendency to offer training in lower skills in minority schools than in predominantly white schools. Even more serious underenrollment probably exists for such minority groups as Mexican-Americans and Indians. A serious quality problem exists if for no other reason than that minority groups tend to live where all schools need sharp improvement. However, the limited studies which are available do indicate that minority group members who receive vocational education profit from it to a higher degree than others.

The Present Nature of Vocational Education

Teacher Education

Although there is need for improvement in the amount and quality of teacher education, the competence and dedication of instructional staffs is generally impressive.

The teacher of vocational education is generally competent in his field, and he knows how to teach. In all fields except trade and industrial education, he is usually a college graduate. In agriculture and home economics, he learns the content of his teaching field at home and in college in situations structured to promote teaching and learning. In the health fields and business education, he learns this content in college and on the job. In distributive education and trade and industrial education, the content is often not taught in college, so he learns it as an employee, usually before he begins to think about teaching as a career.

The practice of structuring teacher education along the traditional occupational category lines perpetuates fragmentation of vocational education, severs it further from general education, and hinders adaptation to labor market change. What is needed is "vocational teacher training," with specialization at advanced levels, not separation by category throughout.

Instruction in how to teach is usually provided by a college; in the case of trade and industrial education and distributive education, after the teacher has begun to teach. Shortly after the teacher is employed, he acquires tenure, so it is very difficult to dismiss him. Through the subject he teaches might no longer be needed, he too often continues to teach it until he retires. If the content of his field changes, he

usually goes back to school or goes back to work during summers to bring himself up to date. If he does so, however, it is at his own expense. Some teachers choose to grow obsolete, spending their summers in such employment as selling encyclopedias and make more money than they could earn in their own field. Soon they are no longer employable in their occupation, but they may be allowed to continue to teach it anyway. While the dedication and ability of most teachers is commendable, built-in procedures are needed to keep current those who desire to do so, encourage those who do not, and weed out those who will not.

Counseling and Guidance

The lack of counseling and guidance is a particularly unfavorable point. In specialized vocational schools, counselors are interested and competent in vocational counseling. High school counselors in general, however, have too little knowledge of and interest in vocational education and the labor market.

Most guidance personnel are oriented by past experience and by community pressures toward providing educational guidance for higher education. They know colleges and college requirements, but they do not know enough about employment outside the professions or about the requirements for such employment. Vocational guidance cannot be considered apart from educational guidance and guidance aimed at changing attitudes and resolving personal problems. Guidance for all these purposes must form a coherent whole. Nor can vocational guidance be considered apart from the educational program, for the educational program determines very largely what every student is taught about the world of work.

Two actions seem to us desirable: First, employment of guidance personnel who have experience and knowledge of the world of work and its requirements and integration of such personnel in the regular guidance staff to handle specific student problems and to reorient other guidance workers. Second, development of a systematic program which will enable the regular guidance staff to acquire knowledge of and experience in the world of work.

Prevocational Instruction

Equally important, we feel, is modification of the school program to provide, as a part of the course work of all students, instruction designed to acquaint them with today's world of work. At present we have almost none of this, for the Congress has decreed this off limits to vocational education, and federal funds may not be used for this purpose. Much of the present instruction is actually misleading. For

example, in the elementary school, children are introduced to only a few occupations (postman, fireman, and policeman), and what they do learn is so antiseptic that the real requirements and duties of these jobs are never touched. In the junior high school, industrial arts for boys is primarily concerned with development of leisure-time pursuits, with activities limited largely to those pursued by the individual. The view of industry given the student is that of 200 years ago when goods were produced by individual craftsmen on a custom-order basis. Home economics at the junior high level does a better job, although it introduces girl primarily to the middle-class home where the wife has both time to sew and money for expensive appliances. Little or nothing is taught about the problems of the working wife or about occupations other than homemaking. In the senior high school, many of these same conditions hold, though the situation has definitely improved since 1963.

The entire curriculum could be designed to present a view of employment: Music, art, mathematics, English, and so forth, could include content about employment opportunities and requirements in related occupations. The curricula could be constructed in spiral fashion to enable each student to learn about the world of work at higher and higher levels of specificity as he proceeds through school. If such a program were to be implemented, federal vocational education funds should be provided, on a contract basis, for development of curriculum materials and teacher training for any school program which will contribute to understanding of the world of work. While such programs are not vocational education, and salaries for teaching them need not be reimbursed, it is to the advantage of vocational education that they be provided, and provided accurately.

Trends in Vocational Education

Enrollment trends are currently more in line with labor market developments than ever before. Enrollments in home economics and agriculture continue to increase but at a rate slower than the increase in total vocational enrollments. The numbers being trained in these areas do not exceed the needs of the nation, but, in terms of priority uses of scarce funds, it would be preferable to expand other areas more rapidly and these less rapidly. Distributive education enrollments are low in relation to the proportion of sales jobs in the economy, but perhaps high enough considering the pay scales in many of these jobs. Enrollments in trades and industries are lagging surprisingly, relative to the demands and the earnings opportunities available. Considering the growth of attractive opportunities, the enrollments in the technical and health fields are most disappointing.

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Other fields which have received too little attention include most occupations employing large numbers of women, most of the consumer and producer service occupations, occupations important in public employment, the unskilled occupations, and those occupations in which few people are employed per community (even though they may be quite significant when the entire state or nation is considered).

On the other hand, the apparent growth of training for office occupations is hopeful and in line with needed and available opportunities for girls, though the available data allow us only to assume that the enrollment increase is real rather than simply a paper increase due to the reporting of enrollments required as a condition of federal support.

Vocational Education Facilities

Facilities tend to be poor in areas where all education facilities are poor and good where investments in education are high. Even where there is evidence of deterioration, overcrowding appears to be a more serious problem than outdated equipment. As pointed out earlier, the 1963 act has made important contributions to the capacity and quality of vocational education facilities. However, many are currently questioning the concept of the area school which seems to intensify the separateness between vocational education and academic education and to mark vocational students as second-class citizens of their home schools where they attend only a rushed part day.

The comprehensive high schools, another great hope of recent policy changes, are also being challenged. Some charge that they do not generally provide really comprehensive offerings, while marking the vocational student academically and socially as being of lesser status. In many large cities, students are divided among college prep high schools, vocational and technical high schools, and general high schools. Outside the large cities, these three programs are operated under the same roof and called a comprehensive high school. But small high schools cannot possibly offer a program broad enough to be comprehensive, and many of the larger schools are comprehensive only in name. The student bodies in their three curricula are separated by social, economic, and intellectual barriers which are rarely breached.

The State of Innovation

Although impressive innovations are under way in many states, there appears to be a too frequent reluctance to adopt such innovations, particularly when they have been developed by institutions out-

side the public vocational education establishment. Innovation consciousness often appears to be more intense at the local level than the national level, with certain state boards of vocational education showing the least progressiveness. Considering the frequent hunger for leadership at the local level, the U.S. Office of Education has shown undue timidity in failing to endorse and press for innovations more aggressively.

There is particular backwardness, with notable exceptions, in undertaking an orientation to the world of work in the junior high school or earlier to better prepare students for future vocational choices. There has also been a general failure to recognize that vocational education may have as much or more to offer as a technique for motivating students to learn by doing as it does as a method of skill training. This is particularly important in light of studies suggesting that a relatively low proportion of high school students make occupational use of specific vocational skills learned there.

Innovation, to have any real impact, must reach each instructor. In theory, every school district determines the content of instructional materials and the effectiveness of instruction. In practice, the teacher determines what shall be taught. Because he cannot teach what he does not know, there are often tremendous gaps in instruction. In practice, even the largest school district cannot prepare instructional materials for each of its courses. Millions of dollars of federal funds have been spent to develop instructional materials for certain science courses, but almost nothing has been spent on similar materials for vocational courses. Obviously, it is inefficient to expect every school district to develop its own. The school district should spend its funds in choosing and modifying existing instructional materials to meet its needs. But the federal government must subsidize the preparation of instructional materials where the low demand prohibits commercial production.

Part-Time Cooperative Education and Work Study

The learning-by-doing concept is particularly relevant to the important but underused part-time cooperative education program and the work-study program of the 1963 act. Formal instruction in school classrooms, shops, and laboratories is most valuable in the initial stages of vocational education. Properly planned, formal vocational instruction not only teaches basic skills, knowledges, and attitudes, but it teaches students how to learn on their own. Equally important for many students, it demonstrates the importance of other school subjects. For the adult, formal vocational instruction offers the

opportunity to learn the theory and rudiments of new developments in his occupation, or a way out, should he need to shift occupations.

No one would think of typing skills except through formal instruction, but formal instruction alone does not produce competent secretaries. Ideal vocational education combines formal instruction with learning on the job. This combination was first developed for apprentices and has been successful wherever it was intelligently applied. Apprentices who learn skills on the job at the same time they acquire related knowledge in the classroom are likely to be leaders. Apprentices who learn only on the job or whose classroom instruction is not related to their work are not as successful. Nor are apprentices generally successful when their range of instruction on the job or in class is so narrow that they cannot learn the entire occupation.

More recently, formal instruction and on-the-job training have been combined in the part-time cooperative program. First used in collegiate engineering instruction, it has been adapted to high school vocational education with marked success. Oddly, it has rarely been used in junior colleges, though it is an excellent method at this level of instruction. The high school part-time cooperative program usually requires that the student work half of each day and go to school the other half. Usually, the student is at least 16 years old and is a junior or senior. While at work, he is supervised by a school-employed coordinator who makes certain that he is not exploited and that he is receiving worthwhile instruction. When the student is in school, he spends one hour per day studying the theory of his occupation. The coordinator who teaches this class, makes certain that what the student learns is related to his work. The student also takes other academic subjects.

The part-time cooperative plan is undoubtedly the best program we have in vocational education. It consistently yields high placement records, high employment stability, and high job satisfaction. Students cannot be trained faster than they can be placed. The availability of training stations with employers is limited by the needs of the employer.

This program is also popular with students. Pay, an opportunity for instruction which is obviously "real life," and prestige all contribute to this popularity. Usually, many more students apply than can be accepted; this leads to rejection of the students who need it most, and undoubtedly contributes to the excellent record maintained by those who are accepted. Making it available to all who desire it would largely eliminate this skimming process.

Time Requirements in Vocational Education

Fearful that the academic educators of 1917 might offer vocational education for too limited periods each day, the supporters of the Smith-Hughes Act specified that at least half of each day be spent in useful and productive training for work. As with many such regulations, however, the time requirement became a fetish. Many schools required the student to spend three hours per day in a shop and one or two hours per day in classes concerned with related technical information. With a five- or six-hour school day, this left little time for other subjects. Even though legislative requirements were later relaxed somewhat, the schools changed very slowly.

Now, however, most schools outside the large cities require only two or three hours per day of vocational education, and the trend is toward making it available only in the last year or two of high school. Similar classes, offered earlier in the student's career and offered for a shorter length of time each day, are considered to be a part of general education, and are not reimbursed from federal funds.

The principal remaining anomaly in the time schedule for vocational education classes is that some schools require the time spent in all vocational classes to be the same. Drafting requires considerably more time to learn than does welding, yet the same amount of time is usually spent on each. Some able students can learn a given skill in half the time required by less able students, yet the time requirements for each are usually identical. But this situation is common in education generally and applies equally well to classes in history, mathematics, and other subjects.

Relevance to Labor Market Conditions

Every vocational program should be based on a study of employment supply and demand and consideration of student mobility. In practice, data on supply are not available; data on demand are unreliable; and an implicit assumption appears to be that no graduate of the program will ever leave the school district.

The best information on the adequacy of a vocational education program comes from the followup of the student who is placed on a job. Research indicates clearly that the most successful vocational programs are those which assume responsibility for placing their graduates and thus get feedback on their strengths and weaknesses. The vocational placement officer, the student, his employer, and his fellow workers know the strengths and weaknesses of the program. Without the link of the placement office, this information is unlikely to get back to the school. If the graduate cannot be placed in the field

for which he is prepared, something is wrong. Acceptance of placement responsibility by vocational educators would provide a built-in test of adequacy and relevance.

The Financing of Vocational Education

Like most education, vocational education aids the individual, his employer, and society. But it also has costs, many of which are really investments. In high school, the individual pays extra fees for the expensive materials he uses, and he foregoes earnings; in junior college the fees and foregone earnings increase and to them is often added a substantial tuition; in adult education, costs to the individual are not such a serious obstacle because he is often employed full time. Costs to the individual become extremely high in certain proprietary schools.

Costs to the employer vary greatly. Direct and indirect costs may be enormous. Trained workers are an absolute necessity if he is to stay in business. He may elect to train them himself, steal them from another employer who trained them, rely on the worker to pay the costs of training in a proprietary school, or rely on the worker and the public to pay training costs in a public school.

In practice, most employers use all four of these methods. But large employers are more likely to plan training for their own workers than are small employers. Excessive cost per trainee prohibits extensive formal training by small employers. These employers are more likely to recruit trained workers (often from other small employers) simply because they have no choice. Often, however, they have to pay severely for this practice, either in excessive wages or in lowered efficiency, because they are unable to appropriate the best workers.

Proprietary schools tend to attract students who seek glamour fields such as radio, television, cosmetology, secretarial work, and nursing. They also attract adults who are interested in instruction not provided by public schools. Usually, private schools provide instruction in a new field long before the public schools. Like the public schools, their placement record depends on the quality of their product and on the current demand for employees. Unlike the public schools, they spend a great deal of effort on selling their wares to prospective students.

Undoubtedly the least expensive way for an employer to get trained manpower is to have the individual employee or prospective employee pay for training done by private schools. The next most inexpensive method for the employer is to have the training done to his specifications by the local public schools. The influence of local employers

seeking to shift their training costs is a key reason why so many schools act as if none of their students will ever leave the school district.

The employer who will not or cannot afford to train his own workers should pay more for the training provided by the public than does the employer who does train his workers. Stealing trained employees may be a necessity at times, but regular larceny should be discouraged, perhaps by a tax on failure to provide training. We are unwilling at this time to recommend such a tax. We do recommend careful studies of the effectiveness of such taxes in England and France, and perhaps in other countries.

The financial burdens of vocational education are often inequitably distributed. Since vocational education benefits the individual, the employer, and society, each should pay a portion of the cost. At least for the individual who would otherwise be on relief or in prison, it makes sense for his contribution to be deferred, permitting him to attend school and pay his share through loan repayments and taxes on the additional income he will earn. Moreover, it seems unjustifiable for the vocational education student to pay higher fees than the academic student. We don't expect the chemistry student to pay for chemicals, but we often charge the welding student for welding rods.

Inequities also exist in the ways in which costs of vocational education are shared by the local school district, the states, and the federal government. In most cases, by far the largest share is paid by the local district. In spite of the efforts of some local districts to keep their students at home, these actions seem completely ineffective. Why should the major portion of the cost of educating potential migrants be borne by the local taxpayers? This problem of local costs is compounded by the extreme variation in wealth from one local district to the next. Two steps would seem to be warranted: First, decrease the proportion of local costs by providing more state and federal funds, and second, delete an administrative ruling which requires state and local matching of funds by purpose and by project. The effect of this ruling is to make poor districts pay as large a proportion of matching costs as rich districts.

The state share of federal funds is based on population and income. This formula does not take into account state and local effort: Some poor states are spending a great deal (relative to income), while other poor states spend very little. The same is true for wealthy states. We believe that the federal government should reward heavy state and local effort to support vocational education.

Most states disburse state and federal funds to local schools on the basis of teacher salaries. This rewards wealthy districts which

are able to pay high salaries, and it rewards small districts which have inefficiently small classes. We believe funds should be distributed on the basis of average daily attendance of students. This would have the additional benefits of rewarding districts which maintain enrollments throughout the school year and would provide accurate enrollment data for the first time.

The federal government's share of the costs of vocational education should be increased, we believe, because of increasing mobility of students, because of the obvious benefits of vocational education, and because it is in the national interest that the needs of disadvantaged students and disadvantaged areas of the nation be met.

Coordination With Other Programs

The Vocational Education Act of 1963 was only one of many programs introduced during the 1960's to assist the unemployed to compete more effectively for available jobs and, in some programs, to provide public service jobs for them. Among these are the Manpower Development and Training program, the Job Corps, the Neighborhood Youth Corps, the Work Experience and Training program, and the New Careers program. Their chief contrast with vocational education is that they are remedial in nature. In fact, the frequent failure of the schools in the past to motivate students and to prepare them occupationally has created the demand for remediation. Even with the best of occupational preparation in the schools, however, the need for remedial programs will continue. Technological change will make some skills obsolete; business establishments will fail or move; consumer tastes will change, leaving workers to find new skills in order to be absorbed in new employment. The apparently inexorable trends toward better preparation will leave many of the older workers handicapped in competition with the younger. However, adequate vocational education can minimize these problems.

Though remedial programs are making significant contributions, they are still inadequate in capacity. Unfortunately, they were established piecemeal to meet current crises, with too little attention to interrelationship with other programs, existing or proposed. Duplicated services are available among some programs, and other needed services do not exist. Some population groups are subject to competition among programs, and others are neglected. Some programs pay stipends to trainees, while other do not. Some programs require heavy local expenditures, while others are almost totally federally financed. Program administration is divided and scattered among numerous federal, state, and local agencies in a confusing welter of eligibility requirements, application procedures, and funding sources. In the con-

fusion, the areas and groups needing help the most tend to find it least. Often this is a result of a lack in leadership and sophistication. All of these programs relate in some way or other to vocational education. Many rely upon its resources. All the programs, remedial and preventative, and, more importantly, the clients they are designed to serve, would profit by rationalization, coordination, or consolidation.

The Timing of Occupational Preparation

The current status of occupational preparation is clouded by an unfortunate tendency to consider vocational and general education as incompatible. Some critics maintain that narrow vocational programs are crowding out more widely useful general programs. There is no doubt that a few vocational education curricula are narrow and stultifying: A program which prepares all Negro students for personal service occupations or a program which spends two-thirds of the school day on vocational subjects cannot be justified. Equally bad is the occasional vocational curriculum which really has no general education content: All of the academic classes are diluted and bear such titles as "Mathematics for Printers" and "Vocational English."

However, good vocational and general education programs are far from incompatible. They should in fact reinforce each other. General education provides the basis for understanding the theory upon which the vocational courses are based. Vocational education leads many adolescents to see for the first time that mathematics, science, and English are useful and important.

This misunderstanding of the relationship of vocational and general education has led some persons to advocate the abolition of vocational education in the public schools. They often argue that "industry prefers to train its own workers." This statement is sometimes supported by presidents of large companies which can afford to operate training programs, though the statements of the company presidents would be more persuasive if they were not negated by the actions of their own personnel directors who invariably hire the best trained applicants. Very few presidents of small companies could possibly argue that they prefer to provide all the vocational training needed by their employees.

Another frequent argument is that vocational education has no place in the public schools because it is a subsidy to employers. Those who hold this view almost invariably support professional education in public colleges, and really are saying that occupational preparation (and some degree of subsidy) is justifiable only for that minority of our population which goes to college.

Other theorists are willing to support vocational education in the public schools but believe it should be postponed until after high school graduation. There is some merit in this position. Most youths cannot secure meaningful employment until age 20, and, when specific vocational education is received long before it can be used, many of the skills, knowledges, and attitudes will be forgotten.

There is no question that the trend is toward postponement of specific vocational education until junior college years. Unfortunately, however, most youths do not reach junior college. Indeed, many of them drop out before the junior year of high school when most vocational education courses now begin.

The problem of retention of early training is not peculiar to vocational education. The knowledges and skills of science are also apt to be forgotten if they are not used. This does not lead us to postpone all science instruction to the junior college years. Instead, we begin science instruction in the early elementary grades. As the student goes through school, he passes through a spiral science program which repeatedly exposes him to science concepts on a higher and higher level. A general feeling for science is imparted at first, and instruction becomes more and more specific as he goes through school. If the student enjoys science, it can lead to a greater appreciation for other subjects such as English and mathematics.

Considerations such as these lead to the curriculum proposals presented later in this report. This curriculum lends intelligibility to other academic subjects; it encourages the student to stay in school until he is prepared for meaningful employment; and it postpones the more specific (and easily forgotten) types of instruction until they are needed.

The Results of Vocational Education

Our deliberations have identified several areas which need additional attention. But in spite of these difficulties and problems, publicly supported vocational education is the only formal means of employment preparation available to most noncollege students. Apprenticeship is an important route which depends on the help of vocational education for related instruction, but it involves relatively few youths in a limited number of trades. As already stated, the Manpower Development and Training program, the Job Corps, and other similar training programs are primarily remedial in nature, rendering their important services to those who failed to take advantage of opportunities for occupational preparation in the schools. MDTA is, in the main, dependent upon state and local vocational

education for personnel and facilities, and other remedial programs have varying degrees of similar reliance.

Limited followup data continue to show a high proportion of placement for vocational students, even though many of them choose further training and many shift to other occupations. Sample studies give high marks to vocational education for its impact on the subsequent employment experiences of its graduates, particularly in contrast to those in the general curriculum (whether this finding indicates the strengths of the former or the weaknesses of the latter is debatable). Studies relating the costs of vocational education to the benefits derived have given it solid support. When controlled for differences in native ability, vocational students profit substantially as compared to others in both employment and earnings. The agenda for the future suggests further improvement and expansion of vocational education. It is in pursuit of that objective that we discuss, in the following section, some of the basic concepts essential to adequate occupational preparation and career development.

Basic Concepts of Education for Employment

As earlier sections have shown, the Vocational Education Act of 1963 in many ways charted a major reorientation of vocational education. However, in the brief time available, the promise of the act has not been realized. Meantime, the world of work and the problems of preparation for it, access to it, and successful performance in it have become even more complex. Out of the changing social and economic environment of the past two decades have emerged clearer concepts of career development, some new and some modifications of earlier ones. From these concepts, we can draw operational principles and design a system of legislative and administrative changes necessary for achieving vocational education for all. Three concepts are particularly relevant to this report.

Academic and Vocational Education

It is no longer possible to compartmentalize education into general, academic, and vocational components. Education is a crucial element in preparation for a successful working career at any level. With rising average educational attainment, better educated people are available so that the employer seldom needs to accept the less educated. If it represents nothing else, a high school diploma is evidence of consistency, persistence, some degree of self discipline, and perhaps even of docility. The relevance of education for employment arises from better educated labor and a technology that requires it. The educational skills of spoken and written communication, computation, analytical techniques, knowledge of society and one's role in it, and skill in human relations are as vital as the skills of particular occupations.

On the other hand, employability skills are equally essential to education. If education is preparation for life, and if practically every-

one's life and opportunities for self-expression and self-fulfillment include work, then only the successfully employable are successfully educated. American society is achievement oriented and attributes something less than wholeness to the nonstriver and nonachiever. Culture and vocation are inseparable and unseverable aspects of humanity.

Vocational education is not a separate discipline within education, but it is a basic objective of all education and must be a basic element of each person's education. It is also a teaching technique which may have even more to offer as method than as substance. As a selecting out process for the professions, education has fostered, stressed, and rewarded the verbal skills important to these pursuits. It has given too little attention to development of attitudes, manipulative skills, and adaptability to new situations. In the process of emphasizing verbal skills, the predominant methods of instruction are lecture and discussion, and little attention is given to the alternative technique of learning by doing. As discussed earlier, for many students, the techniques of vocational education can supply a core around which an attractive package of academic as well as skill content can be prepared which will be more palatable and useful to undermotivated students than either alone. This may be most applicable to those from deprived environments whose verbal experiences have been limited and whose time horizons have been shortened by expectation of failure. Skill development can be accomplished through work experience or through education in the school's shops and laboratories. The key is to build a better means of integrating academic education, skill training, and work experience. The common objective should be a successful life in which employment has a crucial role.

The Constancy of Change

The second premise is by now a cliché: "Nothing will henceforth be more constant than change." Technological and economic progress feeds on itself, opening new vistas and closing the old. The underprepared are threatened by displacement, and the well prepared are confronted with new opportunities. Both require adaptability. Preventive measures can reduce the demand for remedial programs but never eliminate the need for them. Appropriately prepared persons may be highly adaptable, but that adaptability may depend upon upgrading present skills as well as acquiring new ones. The need for continuous learning, formal or informal, will certainly become universal. There will always be those with inadequate preventive occupational preparation who will need remedial help.

The demand upon vocational education is clear: Programs for youth must prepare them for change; programs for adults must be universally available, and must emphasize coping with change.

Toward Freedom of Opportunity

Finally, the most treasured value of our society is the worth and freedom of the individual. Each individual is entitled to the benefits of a social system which will make it possible for him to get from where he is to where he has the potential to be. One operational measure of freedom is the range of choice available to the individual. The major constraints upon the range of choice are ignorance and poverty and disease and discrimination. Education can reduce the barriers of ignorance, and proper occupational preparation can lower the barriers of poverty. They cannot eliminate disease and discrimination, but they can substantially contribute to overcoming them.

Operational Principles

A number of operational principles follow from these premises.

1. Vocational education cannot be meaningfully limited to the skills necessary for a particular occupation. It is more appropriately defined as all of those aspects of educational experience which help a person to discover his talents, to relate them to the world of work, to choose an occupation, and to refine his talents and use them successfully in employment. In fact, orientation and assistance in vocational choice may often be more valid determinants of employment success, and, therefore, more profitable uses of educational funds, than specific skill training.

2. In a technology where only relative economic costs, not engineering know-how, prevent mechanization of routine tasks, the age of "human use of human beings" may be within reach, but those human beings must be equipped to do tasks which machines cannot do. Where complex instructions and sophisticated decisions mark the boundary between the realm of man and the role of the machine, there is no longer room for any dichotomy between intellectual competence and manipulative skills and, therefore, between academic and vocational education.

3. In a labor force where most have a high school education, all who do not are at a serious competitive disadvantage. But at the same time, a high school education alone cannot provide an automatic ticket to satisfactory and continuous employment. Education cannot shed its responsibilities to the student (and to society in his behalf) just because he has chosen to reject the system or because

it has handed him a diploma. In a world where the distance between the experiences of childhood, adolescence, and adulthood and between school and work continually widen, the school must reach forward to assist the student across the gaps just as labor market institutions must reach back to assist in the transition. It is not enough to dump the school leaver into a labor market pool. The school along with the rest of society must provide him a ladder and, perhaps, help him to climb it.

4. Some type of formal occupational preparation must be a part of every educational experience. Though it may be well to delay final occupational choice until all the alternatives are known, no one ought to leave the educational system without a salable skill. In addition, given the rapidity of change and the competition from generally rising educational attainment, upgrading and remedial education opportunities are a continual necessity. Those who need occupational preparation most, both preventive and remedial, will be those least prepared to take advantage of it and most difficult to educate and train. Yet for them, particularly, equal rights do not mean equal opportunity. Far more important is the demonstration of equal results.

5. The objective of vocational education should be the development of the individual, not the needs of the labor market. One of the functions of an economic system is to structure incentives in such a way that individuals will freely choose to accomplish the tasks which need to be done. Preparation for employment should be flexible and capable of adapting the system to the individual's need rather than the reverse. The system for occupational preparation should supply a salable skill at any terminal point chosen by the individual, yet no doors should be closed to future progress and development.

In short, an environment is emerging in which nearly all require salable skills which demand intellectual as well as manipulative content and which include the base for constant adaptation to change. An increasing amount of the knowledge necessary to success must be organized and presented in a formal manner; the pickup or observation methods of the past are no longer adequate. Rural schools with their inadequate offerings and ghetto schools with their deficient resources, added to the initial environmental handicaps of their students, can never hope, without special assistance, to gain on the quality-conscious suburban schools. Education is neither the unique cause nor the sole cure of the problems of the rural depressed area or the urban slum. But it is a necessary factor.

Toward A Unified System of Vocational Education

That most of the concepts of the previous section were in the minds of the authors of the Vocational Education Act of 1963 is apparent from its declaration of purpose: "that persons of all ages in all communities of the state—those in high school, those who have completed or discontinued their formal education and are preparing to enter the labor market, those who have already entered the labor market but need to upgrade their skills or learn new ones, and those with special educational handicaps—will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training."

An adequate system of vocational education capable of achieving these objectives while coping with a changing environment, should, we believe, have the following characteristics.

1. Occupational preparation should begin in the elementary schools with a realistic picture of the world of work. Its fundamental purposes should be to familiarize the student with his world and to provide him with the intellectual tools and rational habits of thought to play a satisfying role in it.

2. In junior high school, economic orientation and occupational preparation should reach a more sophisticated stage with study by all students of the economic and industrial system by which goods and services are produced and distributed. The objectives should be exposure to the full range of occupational choices which will be available at a later point and full knowledge of the relative advantages and the requirements of each.

3. Occupational preparation should become more specific in the high school, though preparation should not be limited to a specific occupation. Given the uncertainties of a changing economy and the

limited experiences upon which vocational choices must be made, instruction should not be overly narrow but should be built around significant families of occupations or industries which promise expanding opportunities.

All students outside the college preparatory curriculum should acquire an entry-level job skill, but they should also be prepared for post-high school vocational and technical education. Even those in the college preparatory curriculum might profit from the techniques of learning by doing. On the other hand, care should be taken that pursuit of a vocationally oriented curriculum in the high school does not block the upward progress of the competent student who later decides to pursue a college degree.

4. Occupational education should be based on a spiral curriculum which treats concepts at higher and higher levels of complexity as the student moves through the program. Vocational preparation should be used to make general education concrete and understandable; general education should point up the vocational implications of all education. Curriculum materials should be prepared for both general and vocational education to emphasize these relationships.

5. Some formal postsecondary occupational preparation for all should be a goal for the near future. Universal high school education is not yet achieved but is rapidly approaching reality. Postsecondary enrollments are growing, and before many years have passed, the labor force entrant without advanced skills gained through postsecondary education, apprenticeship, or on-the-job training will be at a serious disadvantage. Universal advanced training will bring increased productivity, higher standards of living, and greater adaptability, to the profit of the economy as well as the individual. If postsecondary education and training is to be universal, it must be free. Fourteen years of free public education with a terminal occupational emphasis should be a current goal.

6. Beyond initial preparation for employment, many, out of choice or necessity, will want to bolster an upward occupational climb with part-time and sometimes full-time, courses and programs as adults. These should be available as part of the regular public school system. They should not be limited to a few high-demand and low-cost trades, but should provide a range of occupational choice as wide as those available to students preparing for initial entry.

7. Any occupation which contributes to the good of society is a fit subject for vocational education. In the allocation of scarce resources, first attention must be paid to those occupations which offer expanding opportunities for employment. In the elementary and junior high schools, attention can be paid only to groups of occupa-

tions which employ large numbers of people, and instruction must be restricted to broad principles, common skills, and pervasive attitudes which will be useful in a broad range of employment. These restrictions are less and less valid as the student goes through high school and junior college, until, in adult education, instruction is justified in even the most restricted field if it is valuable to the individual and to society.

8. Occupational preparation need not and should not be limited to the classroom, to the school shop, or to the laboratory. Many arguments favor training on the job. Expensive equipment need not be duplicated. Familiarization with the environment and discipline of the workplace is an important part of occupational preparation, yet is difficult to simulate in a classroom. Supervisors and other employees can double as instructors. The trainee learns by earning. On the other hand, the employer and his supervisors may be more production than training oriented. The operations and equipment of a particular employer may cover only part of a needed range of skills, necessitating transfer among employers for adequate training. The ideal is to meld the advantages of institutional and on-the-job training in formal cooperative work-study programs.

9. Effective occupational preparation is impossible if the school feels that its obligation ends when the student graduates. The school, therefore, must work with employers to build a bridge between school and work. Placing the student on a job and following up his successes and failures provide the best possible information to the school on its own strengths and weaknesses.

10. No matter how good the system of initial preparation and the opportunities for upgrading on the job, there will always be need for remedial programs. Remedial programs will differ from the preventive in that many of the students will require financial assistance while in training; the courses must be closely oriented to the labor market to assure a quick return to employment; and the trainee will be impatient of what may seem to be the frills of regular vocational programs.

11. At every level from the elementary school through the post-secondary, adult, and remedial programs, there will be those with special needs as defined by the 1963 act. For both humanitarian and economic reasons, persons with special needs deserve special help.

12. Many communities are too small to muster sufficient students for a range of occupational offerings broad enough to provide realistic freedom of occupational choice. Potential students, often those with the greatest needs, live in areas too isolated for access to meaningful training. Others come from a home and neighborhood environment

which makes sound preparation for life and employment difficult. An adequate system of occupational preparation will provide residential facilities wherever their absence presents an obstacle to anyone in need of education and training.

13. The public system for occupational preparation must be supported by adequate facilities and equipment, buttressed by research and innovation, and by the preparation and upgrading of competent teachers, counselors, and administrators. To assure constant improvement, it must provide for constant evaluation and reporting of problems and accomplishments.

14. The system of occupational preparation cannot operate in a vacuum. Data must be made available on public and private training opportunities to eliminate undesirable duplication. Data on supply and demand for various occupations must be available on a broader and more accurate basis. But total training opportunities must be based, not on the number of jobs which are available, but on the number of persons needing training.

Creation of the system of occupational preparation outlined here must be a continuing pursuit. The Vocational Education Act of 1963 and the efforts of vocational educators have carried the nation a substantial way toward these objectives. Our recommendations which follow will, if adopted, assure further progress. But they will never end the quest because, fortunately, society does not stand still.

Recommendations of The Vocational Education Advisory Council

To continue pursuit of the objectives set by the Vocational Education Act of 1963 and to achieve others indicated by the experience of the succeeding four years, it is recommended that the act be amended to accomplish the following:

1. Administrative complexities should be reduced by combining all vocational education legislation into one act.
2. A Department of Education and Manpower Development should be established at Cabinet level.
3. Innovation should be encouraged by contracts or grants between the Commissioner of Education and state boards, local educational agencies, and other public or nonprofit institutions.
4. Specific funds and permanent authority should be provided to develop and operate new and expanded vocational education programs for persons who have academic, social, economic, or other handicaps.
5. The act should provide permanent authority for work-study programs at the secondary and postsecondary levels structured so as to combine education, training, and work experience, as well as offer income opportunities.
6. Residential vocational schools should be constructed and operated under grants from the Commissioner of Education to state boards of vocational education or, with the approval of state boards, to colleges, universities, and public education agencies.
7. At least 25 percent of vocational education funds should be earmarked for postsecondary schools and adult programs.
8. Vocational homemaking education should be included in a separate section of the act with specific funding authorization.
9. Funds should be distributed to the states on bases which will provide incentive for increased enrollment and attendance and improved performance.

10. The act should permit matching of the federal allotment on a statewide rather than area-by-area or project-by-project basis.

11. To end the disharmony between the planning processes of the schools and the appropriations practices of Congress, provision should be made for states to receive allotments earlier in the calendar year and to spend funds through the succeeding fiscal year.

12. Salaries and expenses needed for the administration of vocational and technical education should be included in the annual appropriation provided by the act, rather than in a separate budget as at present.

13. The presently misnamed "State Plan" should be recognized as merely a legal contract between the federal and state agencies. The present "Projected Program Activities" should become a five-year projected plan subject to annual updating.

14. The preparation and upgrading of professional and paraprofessional personnel should be recognized and financially supported as an objective of the act.

15. The opportunity grant program of the Higher Education Act of 1965 should be extended to postsecondary technical and vocational programs by setting aside 25 percent of the funds appropriated for title IV of that act.

16. The feasibility of reimbursement to employers for unusual costs of supervision, training, and instruction of part-time cooperative students should be tested in pilot projects.

17. The prescribed 10 percent of the sums appropriated under Section 4(a) of the Vocational Educational Act of 1963 should be available for research, with the Commissioner of Education allocating the monies in the most advantageous manner among the three legitimate claimants:

(a) grants or contracts to colleges and universities and other public or nonprofit private agencies and institutions to pay part of the cost of research and dissemination of research results;

(b) grants or contracts approved by the operating bureau for evaluation, demonstration, experimental programs, and for dissemination of results;

(c) grants to states for paying part of the cost of state research coordinating units, state research, evaluation, demonstration, experimental programs, and dissemination of results.

18. An annual descriptive and analytical report on vocational education should be submitted to the President and Congress by the Office of Education.

19. Each state should be required to conduct a periodic statewide review and evaluation of its vocational education program.

20. Prevocational training and employability skills should be included within the definition of vocational education.

21. Confusion concerning the meaning of the term "area vocational education facilities" should be ended by deleting the word "area."

22. The responsibility of vocational educators for students until they are successfully placed in training-related jobs should be affirmed by including initial job placement within the definition of vocational education.

23. Achievement of the act's objectives at the levels of enrollment currently contemplated will require an appropriation of \$1,565 million per year. It is our unanimous conviction that no sounder investment can be made by the citizens of the United States than this—an investment in their own, their children's, and their economy's future.

TABLE 6. RECOMMENDED VOCATIONAL EDUCATION APPROPRIATIONS

	Students Served	Amount	Proportion
I. Grants to states and grants authorized by the Commissioner of Education	8,000,000	\$500,000,000	
(A) Grants to states	—	437,500,000	50-50
(B) Grants by Commissioner	—	62,500,000	100
II. Work-study program	575,000	350,000,000	90-10
III. Exemplary and innovative programs, general and disadvantaged population	175,000	200,000,000	100
IV. Residential vocational schools (50)	25,000	200,000,000	90-10
V. Programs for the socially, economically, and culturally disadvantaged	175,000	300,000,000	90-10
VI. Vocational homemaking	2,000,000	15,000,000	50-50
Total	10,950,000	\$1,565,000,000	

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Background and Potential of the 1968 Vocational Education Amendments

Most of the recommendations of the Advisory Council on Vocational Education, presented in December 1967, had become law by the end of 1968. Rarely had recommendations of a council, commission, or task force met such prompt and favorable response. However, the Council's unique contribution was not its specific recommendations, most of which had been previously proposed or were directly responsive to failures in implementing the 1963 act. The contribution was the philosophy of vocational education endorsed in the Council's Publication 1—never officially published, yet clearly influencing the legislation. The explanation, of course, was that the time was ripe and forces were already in motion for passage of the recommendations. The spread of a philosophy is a slower process.

Preliminary discussions had accompanied a modest bill with a few similar features introduced and considered in 1967. The American Vocational Association had its staff and lawyers busy designing their own recommendations, and its fairly formidable lobbying forces were already alerted. Congressman Roman L. Pucinski and Senator Wayne Morse, the Chairmen of the House and Senate subcommittees dealing with vocational education, had their continuing concern for improvements in vocational education reinforced by the fact that each was facing election. Six years of somewhat frustrating experience with remedial programs had convinced many that preventing competitive disadvantage in the job market was preferable to curing it. Expenditures of nearly two billion dollars per year had carried many from unemployment to successful competition for jobs, but the underprepared were still being dumped into the labor market pool more rapidly than the remedial programs could siphon them off. A small but growing number of congressmen, social scientists, and educators were dedicated to the notion that major reforms were necessary if education was to be made relevant for the non-college bound.

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Because of its "learning by doing" techniques, vocational education, despite its shortcomings, appeared to be the best focal point for changing the entire system. Concentrations of unemployment, amidst the tightest labor markets ever recorded in the absence of wage and price controls, made obvious a mismatch between manpower requirements and skill attainment. This low unemployment rate accompanied by unyielding economic distress provided the comparative calm, yet the continued motivation, to design a more long-range approach.

The Vocational Education Amendments of 1968 should prove to be, even more than the 1963 act, a landmark in the history of education for employment. The 1963 act directed a reorientation of vocational education. The 1917 emphasis on the skill demands of the labor market was to give way to a primary goal of enhancing the employability of people. The act had provided a five-fold increase in federal funds, but it had failed to tie objectives and resources together. The new monies could be used to achieve new goals, or they could be used to do the same old things in the same old ways. The 1968 Amendments reinforced the new orientation, earmarked monies for specific purposes and broadened the meaning of vocational education to bring it more in tune with the realities of preparation for employment at less than bachelor's degree level.

Whether the achievements of the 1968 amendments will exceed the disappointing performance of the Vocational Education Act of 1963 remains to be seen. There are, in fact, three legislative processes: the acts of Congress in turning legislative proposals into law; the decisions of guideline writers as they interpret the intent of Congress, substantiating discretionary authorizations by administrative directives; and, finally, the performance of administrators at various levels as they carry out their assignments according to their own predilections and the pressures to which they are subjected.

This section lists the Council recommendations accepted and rejected, recounts sufficient legislative history to assess the extent to which Congressional objectives were influenced by the Advisory Council recommendations, summarizes the content of the 1968 amendments, and explores the possibilities and pitfalls of the new law as it attempts to "make education relevant" to the modern world of work.

The Box Score of Council Proposals

The interrelationship between the Council's proposals and the act which emerged from Senate-House conference October 3, 1968, is too obvious to be accidental, though whether the Advisory Council recommendations instigated, merely preceded, or were written in

recognition and anticipation of demands already formulated is not so clear. Most of the recommendations were endorsed, a few rejected, and others contained in legislative proposals not acted upon, but none were ignored. All previous vocational education acts, with the exception of the Smith-Hughes Act, were erased in favor of the one new piece of legislation. The title of the Smith-Hughes was retained primarily for sentimental purposes. Its continuing \$7.2 million appropriation must, after June 30, 1969, be allocated according to the formula contained in the 1968 amendments. Innovative programs were provided. Funds were earmarked for not only those with academic, social, and economic handicaps, but special provisions were made for the physically and mentally handicapped. Though work-study authorization was extended for two years, no explicit education, training, or work experience linkage was directed, though no obstacle to such linkage was imposed.

Residential schools were authorized on both demonstration and regular bases. Postsecondary vocational education won its earmarked portion of the funds. Homemaking was not only separated from vocational education for wage-earning employment so Congress could decide specifically how high its priority should be, but Congress did what the Advisory Council had not been able to agree upon. It partially redirected homemaking education to serve disadvantaged families needing help in consumer education, nutrition, and other basic homemaking needs as well as training for gainful occupations.

Statewide matching was authorized. The state plan was transformed into a long-range planning mechanism. Vocational education was left out of the opportunity grant program but was included under the Education Professions Development Act. Cooperative education was given its own earmarked budget, and general authority was given for reimbursing employers. Statewide and national evaluations were provided through state and national advisory councils, given powers beyond anything specifically suggested by the Advisory Council. Independent budgets, authority to hire staffs and make evaluations provide them an unprecedented autonomous role. The definition of vocational education was broadened to include prevocational orientation, employability skills, academic education necessary to preparation for employment, and even job placement, though the latter is nowhere implemented by specific mention within substantive sections of the act.

Of less interest, but still significant, were proposals Congress chose to reject. The timing of allotments could not be improved significantly without improvement in the appropriations process,

so jealously guarded by the Congress. Two-year funding was not granted except for monies reallocated to another state after the first failed to use it. Provision was not made for federal administrative expenses within the annual appropriation. No specific mention was made of professional and paraprofessional skills. The research issue was further confused as explained below. "Area" was not deleted from the term "area vocational" school. Congress did not endorse the \$1,565 million recommended annual figure, but it did authorize \$865 million per year for fiscal year 1970.

A department of Education and Manpower had been proposed in a bill jointly introduced by Congresswoman Edith Green and Congressman Albert H. Quie. Support was building among educators anxious to absorb manpower training, but labor market experts considered the concept too narrow, excluding as it did placement activities and other labor market services.

Congressional Intent

The 1968 amendments were totally Congressional products, sparked by the Advisory Council report and generally supported by the American Vocational Association and other national, state, local, and private groups. The administration was not only a bystander but some in the Bureau of Budget were prepared to recommend veto of the ultimate bill. Even the \$15 million proposal of 1967 which became the Partnership for Earning and Learning Bill of 1968 was the personal proposal of the Director of Adult, Vocational, and Library Programs backed by the permanent national advisory committee (not the *ad hoc* council whose report comprises Part One of this monograph). It enjoyed only lip-service support from the White House. The administration's promise to cut expenditures in exchange for passage of the anti-inflationary tax surtax was only a partial explanation. Later developments discussed below indicate the Bureau of the Budget's 1968 estimate of the worth of vocational education. Staunch administration supporter, Roman C. Pucinski, Chairman of the House Subcommittee on Education, introduced House Resolution 15066, "The Partnership for Learning and Earning Bill." Though he praised the administration's record in general, he expressed chagrin at the meagerness of the vocational education proposal:

I have said repeatedly that . . . the very keystone [to preparation for employment] particularly in the disadvantaged areas, been taken] of the programs . . . available under vocational is vocational education. . . . If 10 years ago advantage [had education, . . . you wouldn't have the hard-core unemployed.

Today the President proposes spending \$2 billion on training for jobs and finding jobs for so-called hard-core unemployed, and yet, even the administration continues to view vocational education as a stepchild . . . this Learning and Earning Act of 1968 . . . is so modest that it wouldn't even begin to scratch the surface of the nation's needs . . . I introduced this legislation. But . . . it is just a beginning.¹

Senate Education Subcommittee members chose to be more circumspect, hoping to keep their intended legislative proposals under wraps until the strategic moment. They were critical of the limited funds recommended for vocational education but chose to blame the Vietnam war without implying criticism of the administration. Though the Subcommittees of both houses shared the conviction that the administration's proposal was inadequate, their outlooks and objectives differed significantly. The legislative history includes the concerns and pressures represented by the separate Senate and House bills as well as the final conference product.

The House Version

Traditionally, vocational education bills were designed and introduced in the House and passed with Senate acquiescence. Of the 1963 act provisions, only the work-study program was a Senate product. In 1968, though the House had its own bill and held the first hearings, the Senate also wrote its own bill and, in many ways, its stamp was heaviest on the legislative product which emerged from conference.

Though Congressman Pucinski's Vocational Education Improvement Act of 1967 saw only eight days of hearings in the House and none in the Senate, its provision for work-study opportunities, residential schools, exemplary programs, fellowship and exchange programs, and increased funds for state grants were precursors of not only the 1968 act but the Advisory Council's recommendations. The administration's bill introduced in February 1968 by Congressman Pucinski, as Chairman of the House Subcommittee on Education, was limited essentially to the exemplary program aspects of the previous year's proposals. The major message throughout eleven days of hearings was inadequacy of the Partnership for Earning and Learning Bill, containing as it did only modest funds for exemplary (newly developed model) programs.

¹ U.S. Congress, House, *Partnership for Learning and Earning Act of 1968*, hearings before a Subcommittee of the Committee on Education and Labor on HR 15066, 90th Cong., 2nd sess., 1968, p. 196.

The powerful American Vocational Association had its own ideas and power to push them. The twenty-year agitation for federal support to vocational education leading to the Smith-Hughes Act had created a permanent, well-organized lobby with bases in every state but with particular strength in rural ones. Predominant AVA pressures tended toward larger budgets and conservative policies, though all AVA staff and some of the powerful state directors did not fit this mold. Restiveness with their restricted roles, concern for employment-related social problems, and a desire to "do good" mingled with self-interest among vocational educators as among other members of society. These evidences of scattered and restrained progressiveness were important since the AVA's legal counsel contributed much to the drafting of the various bills, and he and the AVA Executive Director participated in bill-marking sessions at the invitation of Subcommittee Chairman Pucinski. Pressing from the more liberal side was the AFL-CIO. Health, Education and Welfare influence was divided between the more liberal but less aggressive leadership in the Office of Education and the more traditional staff. The Education Commission of the States, the United States Chamber of Commerce and the National School Board Association all offered general but lower-key support.

Other special interest groups lobbied for specific provisions. The American Association of Junior Colleges pressed for separate funding of postsecondary vocational education programs. The National Catholic Welfare Conference, the United Business Schools, and the Association of Trade and Technical Schools all pressed for inclusion of private schools. The American Personnel and Guidance Association was active in seeking funds for vocational guidance. The American Library Association sought separate funds for vocational educational libraries. The Research Council of the Great Cities pursued a more urban orientation. The National Governor's Council urged gubernatorial appointment of state advisory committees.

The influence of these groups, reinforcing their own predilections, brought from Congressmen Pucinski and Lloyd Meeds a more generous and urban-oriented House Resolution 16460. Their city emphasis elicited a rurally-oriented alternative from Carl D. Perkins, the Chairman of the full House Education and Labor Committee, and Congressman Quie. The compromise between the two, more Pucinski-Meeds than Perkins-Quie, passed the House on July 15 without a dissenting vote, two days before unanimous Senate action on its own version.

The Senate Version

The Senate committee began its work from a set of assumptions much more critical of the existing status of vocational education than did its opposite number. The Senate Committee majority staff diagnosed the failure of the 1963 act to make important changes in the focus and content of vocational education as the fault of educators who had not taken its objectives seriously and of federal administrators who had failed to pursue them aggressively. The committee bill was viewed less as an education measure concerned with substance than as an administrative one concerned with procedure. It was, in effect, a set of Congressional guidelines requiring performance to achieve the objectives set five years previously. However, at the staff level at least, the hidden agenda was: (1) de-emphasis of traditional secondary school vocational training, assigning it instead two primary roles (remedial activities on behalf of the competitively disadvantaged and the physically and mentally handicapped and preparation of the non-college bound for postsecondary, vocational-technical education) and (2) giving a supervisory role to lay advisory committees as a goad to a reputedly lethargic system.

The longer-run objective was indicated by the fact that the Senate bill was a totally new document, even though it emphasized administrative procedures. The House bill, in contrast, was a "cut and paste" adaptation of the existing legislation.

The Conference

Given no greater differences, the Senate-House conference should have been an amicable, low-pressure meeting. However, initial July passage was followed by a delayed late September-early October conference, perhaps to put the final O.K. as close to electioneering time as possible. The penalty of the delay was to resolve the issues in the last few days of a Congressional session while all the House members and many of those from the Senate Conference Committee were campaigning for re-election. The House members dominated the conference which reached its conclusion at 2:30 a.m., eleven days before the close of the Congressional session. However, though the House Conferees won most of the battles, the Senate version of the bill really won the war.

The underlying issues, still unresolved among the members of each house as well as between the groups of conferees, were significant and far-reaching in their consequences. Widespread concern for urban social problems and the influence of big city congressmen in newly powerful positions was threatening the traditional rural bases

of vocational education. Some of the stronger Republican members favored the continuation of relatively unrestricted block grants. Others, in both houses, disenchanted by the results of the 1963 act, were convinced that change could be forced only by earmarking funds to specific purposes.

The powers of the federal Commissioner of Education, relative to those of the state Board of Vocational Education, were an issue which also involved differences of opinion over authority, membership, and appointment procedures for members of national and state advisory councils. The advisory councils were the chosen instruments of the Senate's hope to end what some felt to be a "closed shop" and open vocational education to the influences of employers, labor unions, and other interest groups as well as the general public.

Prevocational orientation in the elementary and junior high schools was an attractive concept, but there was fear that one result would be to drain off for general education funds otherwise available to programs directly geared to occupational training. Homemaker education was the subject of a two-sided controversy, illustrated earlier by differing views within the Advisory Council. Some were opposed to homemaking as an aspect of vocational education. Lacking support to eliminate it as non-vocational, they sought to have its visibility increased by a separate authorization. Then Congress would be forced to evaluate the program separately in each appropriation rather than leaving the allocation to the states, with funds assigned to homemaking reducing those available to more employment-oriented aspects of the curricula. Others thought homemaking education should continue but should be reoriented from sewing and cooking classes for middle-class girls to consumer education, nutrition, and other rudiments of homemaking for the poor in rural depressed areas and, in particular, large city ghettos.

The Conference began with a point-by-point comparison of the House and Senate bills, with the latter seemingly coming out second best, though without agreement on specific language. Because the Senate managers had been relatively acquiescent to that point, the first major conflict arose in reviewing the research and staff training titles. These provisions, usually tagged on as a polite afterthought in most reports and legislation, had produced one of the two significant controversies within the Advisory Council as well (homemaking education being the other). The 1963 act had provided a potential new bonanza for researchers. It had assigned 10 percent of the basic authorization to research, controlled from the federal level. Had it been fully funded, the research budget would have reached \$25 million by fiscal 1968. Even as it was, the actual appropriations of \$12 million in 1965, \$18 million in 1966, and \$10 million in 1967 were

difficult to spend wisely in the initial years while a research constituency was being developed.

The 1963 act assigned the total research appropriation to the federal Office of Education. There, the Commissioner of Education, confronted with major increases in educational research budgets from the Elementary and Secondary Education Act and other legislation and philosophically convinced that operations and research should be in separate hands, removed vocational education research from the operating bureau administering the rest of the vocational funds and assigned it to a separate Office of Education-wide Bureau of Research. The assignment was resented by both the operating bureau which thought it could make more "practical" use of the funds and the state directors who thought the money should be spent at their level. The Advisory Council had been pressed to recommend a percentage distribution but restrained itself to endorsing the legitimacy of each claimant and recommending that the Commissioner of Education be given the discretion to decide the distribution.

The House version compromised between the state and federal positions by allotting 50 percent of the research funds to the states and leaving half to the Commissioner of Education from which to make grants and contracts for research. The Senate went into great detail as to uses of the funds and methods of application but allotted all research funds among the states, permitting the Commissioner of Education to use 50 percent of the funds available to the states for projects of national and regional significance. Whether the latter monies had to be expended within the states to which they were allocated was never clarified.

Out of the sometimes acrimonious discussion of the research provisions, a compromise emerged which left the research and training provisions ambiguous. However, it won for the Senate the use of its language throughout the bill, modifying or changing it only where specific agreement had already been reached. As a result, the administrative orientation and most of the key Senate provisions were preserved.

The Senate bill contained a floor amendment proposing a new pre-school program to replace Head Start, while the House bill proposed transfer of the Job Corps from the Office of Economic Opportunity to the Department of Health, Education and Welfare. The compromise was separate studies of each action, the first by the President and the latter by the Commissioner of Education. A Senate attempt to consolidate local education activities by allowing comingling of federal, state, and local funds from different appropriation sources was defeated, but a study to investigate the feasibility of such procedures was authorized. A Senate directive for promoting

federal enforcement of compulsory school attendance rules and minimum education requirements (essentially a "red herring," apparently placed in the Senate bill for bargaining purposes) was not accepted.

The Senate sought one large authorization with percentage allocations to each program while the House preferred individual authorizations for each program. The total annual package recommended by the House was larger than that of the Senate, but the latter had authorized for four years and the former only for two. The House authorization procedure prevailed, but within the language and with

TABLE 7. PROGRAMS, AUTHORIZATIONS AND MATCHING REQUIREMENTS UNDER THE VOCATIONAL EDUCATION AMENDMENTS OF 1968

Program	Funds (fiscal year; in million \$)					Federal/State Matching
	1969	1970	1971	1972	1973	
1. Comprehensive state programs						
a) Grants to states	319.5	508.5	607.5	607.5	508.5*	50-50
b) Additional programs for people with special needs	40.0	40.0				Up to 100%
c) Activities of National Advisory Council	0.10	0.15	0.15	0.15		
d) Administration of state plans and activities of state advisory councils						
	Such sums as Congress may appropriate					
2. Research and training	35.5	56.5	67.5	67.5	56.5*	Up to 100% for Commissioner's portion; 75-25 for cost of state research coordinating units; 90-10 for other state research activities
3. Exemplary programs	15.0	57.5	75.0	75.0		No matching required
4. Residential vocational schools						
a) Demonstration schools	25.0	30.0	35.0	35.0		No matching required
b) Grants to states	15.0	15.0				90-10
c) Subsidy for interest	5.0	10.0				Debt cost over 3%
5. Consumer and home-making education		25.0	35.0	50.0		50-50 (90-10 in programs for poor and unemployed)
6. Cooperative programs	20.0	35.0	50.0	75.0		No matching
7. Work-study programs	35.0	35.0				80-20
8. Curriculum development	7.0	10.0				No matching
9. Training of vocational educational personnel	7.0	10.0				No matching
10. Administration of new programs						
	Such sums as Congress may appropriate					

*Permanent authorization to continue at the 1973 level for each succeeding year

the addition of years and categories proposed by the Senate (see Table 7). In general, the higher authorization prevailed in each case. The House proposal for transfer of \$5 million annually to the Labor Department for projecting manpower requirements was readily accepted by the Senate.

The Senate opted for a vigorous national advisory council authorized to review state plans and evaluate state activities. It won the first but failed to gain the second. The House, on the other hand, sought to enhance the independence of the state advisory councils by having their members appointed by the governor. Chief state school officers proposed that *they* appoint the state advisory council. Both the Senate and House objectives were opposed by the AVA. The compromise in the latter was appointment by the governor except in states with an elected State Board of Vocational Education.

Both the House and Senate bills stressed vocational education for those having "academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program" as prescribed by the 1963 act, the Senate assigning 15 percent of the basic state grant monies for that purpose with the House recommending that or 25 percent of the state allotment in excess of the June 30, 1969, level, whichever was greater. Each took the same position on a set-aside for postsecondary vocational education, and the House provisions prevailed in both. The Senate recommended, and the House accepted, a separate 10 percent set-aside for the physically and mentally handicapped for whom it felt the vocational rehabilitation program was providing too little vocational education, particularly at the high school level. Both agreed upon the new definition: "vocational or technical training or retraining . . . and remedial or related academic and technical instruction related thereto . . . for gainful employment as semiskilled or skilled workers or technicians or subprofessionals . . . or to prepare individuals for enrollment in advanced technical programs."

Both houses were committed to strengthening the state plan procedure, but it was the Senate Committee which apparently felt most strongly about active review by the Commissioner and refusal of funding until adequate planning had been accomplished. Neither made recommendation for improving the data reporting system, perhaps thinking the authority was already sufficient, though the will apparently was not.

The Senate again authorized the demonstration residential schools of the 1963 act, but this time contemplating at least one in each state in contrast to the original national total of seven. The House, instead, wrote two new provisions, the first offering grants to reduce

borrowing costs in the construction of residential facilities, and the other providing grants for construction of dormitories. The conferees adopted all three.

The Senate had been more generous but less innovative concerning home economics than the House. It recommended a separate category for homemaking education with three-year authorizations for \$25, \$35, and \$50 million successively. To Senator Yarborough, it was "the best program in vocational education." It was up to the House to take the heat from the home economics lobby for a smaller \$15 million a year authorization as well as to innovate with consumer education for the poor. The Senate also accepted the House continuation of work-study, having omitted it from its own bill for strategic reasons.

Each house again acted unanimously, endorsing an act which may have more revolutionary potential than the Congressional principals realized. Yet it may have no significant effect, depending upon the understanding and courage of those who must implement and administer the act—including those who make the funding decisions.

Implementing the 1968 Act

The Congress apparently had six broad objectives in mind when it passed the Vocational Education Act of 1968: (1) augmenting the funds available to vocational education, hoping to stem the influx of underprepared people into the labor market as an alternative to bailing them out when unemployment and underemployment has signaled their plight; (2) implementing through earmarked funds and a reorientation of home economics the 1963 directive emphasizing the special needs of those with academic, social, and cultural handicaps, and adding the physical and mentally handicapped; (3) beginning preparation for employment at an earlier age, particularly for the disadvantaged; yet (4) encouraging the provision of programs for skill development at the postsecondary level; (5) sponsoring the development of new and innovative concepts in planning and teaching through earmarked funds for exemplary and cooperative programs, residential school, curriculum development, and teacher-training; and (6) encouraging long-range planning on the national and state level, applying leverage for change by more independent national and state advisory councils, and providing for more aggressive federal leadership through a more inclusive and tighter system of State Plans as well as through predominantly federal funding for special projects. The 1968 amendments provided both more sticks and more carrots than VEA '63, but whether the objectives will be

any nearer achievement in 1973 will depend upon the vigor with which the act is implemented, endorsed, and administered.

The pitfalls are many—vague phrases were written into the law giving broad discretion to the Commissioner of Education. These must be filled in with administrative detail, giving legal counsel and administrators a chance to, in some respects, re-legislate the act. Beyond these official rules and regulations, made available to the interested public through the *Federal Register*, and the even more powerful “guidelines” issued by the USOE, are unofficial and invisible ones embodied in the instructions of agency heads to their subordinates. Being privy to the latter information is the key to successful grantsmanship—expressed in knowing and writing the magic words that attract grants and contracts. Other biases may be hidden in the minds and reflected in thousands of acts and decisions of various administrators. While guidelines and administrative decisions will shape the longer-run nature of vocational education and determine in large measure whether its objective will be achieved, a key shorter-run determinant will be the decisions of Budget Bureau staff who recommend to Congressional appropriations committees the actual sums to be made available to vocational education. Ultimately, of course, achievement of Congressional objectives requires the understanding, the commitment and the effectiveness of those who plan, equip, direct, and teach vocational education at the state and classroom level.

More than most federal programs, vocational education has been historically burdened by inflexible federal rules, regulations, and guidelines without having the advantage of direct federal guidance and technical assistance. The source of that inflexibility was Federal Bulletin #1, in effect with periodic revisions during the 1920's, 30's, and 40's. It described in the most minute detail almost everything that could or could not be done in federally assisted vocational education programs. The formal bulletin was refined even more by oral guidelines presented annually at regional meetings of state and local administrators. Relaxation of Bulletin #1 began in the late 1940's as the legislative requirements were eased slightly in 1946 and markedly in 1963, until by the latter date it was a quite innocuous document. Nevertheless, state plans written by state directors trained under Bulletin #1 too often reflect the old, rather than the new, in vocational education.

In many states, the State Plan has been carefully locked away from the eyes of lesser administrators and teachers, offering the perfect squelch to the excessively innovative: “It can't be done because it violates the State Plan.” Now, with the 1968 amendments requiring

public hearings on State Plans and review by state advisory committees, school personnel, rather than being intimidated by its "brooding omnipresence," can search it for regulations upon which to hinge their new ideas.

Federal guidelines for the Vocational Education Amendments of 1968 cannot be restricted simply to reciting the law, but must interpret it. The specificity of the interpretations must walk the narrow line between imposing rigidity on each state and allowing reactionary forces in a state to proceed with unchanged views of the social needs stated so clearly by Congress. These guidelines, currently in the making, will not be engraved by the finger of God on tablets of stone. They should be reviewed and revised in the light of the annual evaluations performed by the state advisory councils and by the National Advisory Council. It is the purpose of this section to review the major provisions of the Vocational Education Act of 1968, identifying the ways by which proper interpretation and administration can achieve the forward-looking objectives of the Vocational Education Advisory Council and of the Congress. If the guidelines, as promulgated in 1969, fail to reflect these and other appropriate principles and objectives, it is only to be hoped that their durability will be limited.

Declaration of Purpose

The high principles of the Vocational Education Act of 1963 fell short of implementation. The declaration of purpose in the 1968 amendments is identical with the objectives expressed in the earlier act, except for the addition of a statement that emphasizes vocational education in postsecondary schools. These objectives will also remain pious exhortations unless implemented by specific definitions, assessment of status, plans for achievement, and provisions for evaluation.

Adopted in 1963 and restated in 1968, the principal purpose of vocational education is that "all persons of all ages in all communities of the state . . . will have ready access to vocational training or retraining which is of *high quality*, which is *realistic* in the light of actual or anticipated opportunities for gainful employment, and which is *suited to their needs, interests, and ability* to benefit from such training." [Emphasis added.] Federal guidelines should require specific description in the State Plan of the ways in which these goals will be implemented and assessed. It is not sufficient to direct the state advisory council to evaluate the program yearly. Rather, a specific plan for collection of data and assessment of progress should be included within the State Plan.

State Vocational Education Programs

Uses of Federal Funds

The new law retains all uses permitted under the 1963 act but makes significant additions. There are now nine purposes for which federal grants may be used, the last three of which are new:

(1) programs for high school students, including a new addition of programs which prepare high school students for advancement into more highly skilled vocational and technical education at the postsecondary level.

(2) programs for post-secondary students;

(3) programs for adult workers, whether employed, underemployed, or unemployed;

(4) programs for persons who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education programs;

(5) various ancillary services and activities;

(6) construction of area vocational schools;

(7) programs for handicapped persons;

(8) vocational guidance and counseling;

(9) private vocational training institutions.

The states may also use federal funds for the development and administration of the state plan, for evaluation of vocational education programs and the dissemination of their results. Certain sums of each state's allotment are earmarked for the following purposes: at least 25% of the funds *in excess* to all allotments for the fiscal year 1969—but in no event less than 15% of the total allotment—must be used for vocational education of persons with academic, socioeconomic, or other handicaps; an identical earmarking for post-secondary programs; and 10% of each state's allotment for handicapped persons.

However, to simply state the broad areas within which federal funds are to be spent does little to assure that the act's objectives will be achieved. Federal guidelines must clearly delineate the scope of the programs for which federal grants can be used. In particular, they must clarify the relationship between the uses of funds stated in the law and the general purpose of federal aid to vocational education, namely, to provide "high quality" vocational education in preparation for any gainful work below the professional level to "persons of all ages in all communities of the state."

Several of the uses require comment. The definition of vocational education in the 1968 act has been broadened to bring it closer to general education. It specifically provides that academic work which

is related to a vocational education program falls within the definition of vocational education. The jobs for which a person can be prepared go beyond the traditional "recognized" occupations and include, for the first time, "new and emerging" occupations. Finally, the definition of vocational education now includes job placement, though, with nothing in the substantive portions of the act drawing attention to it, this change is likely to go unnoticed.

This new definition of vocational education opens the field to any educational or training activity directly related to preparation for employment. However, it may also pose the danger that already limited vocational education funds could be used as a replacement for other educational expenditures. Careful attention will be required to assure flexibility without abuse. Early orientation to the world of work and year-by-year nurturing of the information and attitudes necessary for valid occupational choice are key elements in the philosophy of the 1968 act. These are appropriate uses of exemplary and special needs funds, but the primary burden should rest with general education budgets. State Plan requirements should include specific and detailed commitment to integrate general education funds and personnel in achieving these objectives.

After all the difficulty since 1963 of getting vocational educators to recognize and meet the needs of the socioeconomically and academically disadvantaged, it is necessary to sound a warning. The temptation will be great to isolate the "special needs" group, providing them with short-cut training for entry level jobs. The Congressional intent and the humane requirement is clear. The target group is neither to be passed over by a starting point beyond their reach nor to be trained for second class economic citizenship. The assignment is to take the disadvantaged from where they are to where they should be with preparation which opens for them the full range of economic opportunity for which their potential abilities and ambitions can qualify them.

Vocational education for handicapped persons should not be limited to those enrolled in secondary school programs, but should be available to all handicapped students likely to be ready for employment within a reasonable time after completing the vocational education program. In some schools, mentally retarded students are kept in elementary school programs until they leave school. The usual limitation of vocational offerings to the secondary and postsecondary levels should not apply to them.

Vocational guidance and counseling to facilitate occupational choice should be available to students in the elementary school and the junior high school as well as in the high school. Although the

student may change his occupational choice several times prior to entering vocational education, the evidence seems clear that realistic occupational choices made early are of great assistance in motivating general education. Moreover, early consideration of occupational choices is likely to lead to wiser decision-making than is its postponement. The concept that vocational education techniques can serve as a vehicle for the acquisition of general education as well as a provider of skills should be clearly endorsed in federal vocational education guidelines. Integration of vocational education and general education funds for that purpose should be given the strongest possible encouragement.

Great foresight tempered with caution is required in training for new and emerging occupations. A broad-minded definition will permit the use of federal funds not only to train for a "new" occupation already in demand but also for occupations not yet fully developed, for which substantial job opportunities may be two or three years away.

The definition of an "area vocational education school" specifies that such a school should be available to all residents of the state or to residents of an area of the state designated by the state board. There is no specific provision for residents of a metropolitan area which crosses a state boundary. The guidelines should make it clear that state boards involved in such metropolitan areas should negotiate joint agreements providing for the sharing of instructional cost for students who cross state lines to enroll in an area vocational school serving such a metropolitan area.

The term "area vocational education school" is restricted by the law to schools or departments used exclusively or principally for vocational education. "Principally" should not be used in a restrictive way. Any situation in which more than half of the hours of instruction or more than half of the faculty teaching load is in vocational education should be approvable. However, future legislation should be modified to encourage combined programs of vocational and general education.

In order to be eligible for federal funds, private vocational institutions must meet four basic criteria, one of which is that the school must have been in existence for two years or be *specially accredited* by the Commissioner as an institution meeting the other requirements of the law. Special accreditation should be granted only to those programs which, though needed, are not available in the public schools or in already established private institutions. It is a well-established principle of institutional evaluation that it is impossible to determine whether or not an educational institution is performing adequately

until it has been in existence long enough to graduate some students. Nevertheless, where the need is clear, and where a given occupational training program can be provided *only* through a new institution, it would appear sound to approve that one program tentatively and then review it when the institution had been in operation for two years or more.

Federal funds may be used for private vocational training institutions only if they can contribute significantly to the objectives of the state plan and can either provide training *at a lesser cost* or furnish equipment or services not available in public institutions. Interpreted literally, this would allow federal funding of a private institution even if its costs were higher, as long as it had even one needed piece of equipment which was not available in the public schools. The guidelines should specify that, in order for federal funds to be used in a private institution, the determination of "significant contribution" and "lesser cost" or "availability of equipment or services" should be made on a program-by-program basis. There should be no approval of *all* programs in a private institution just because *one* such program meets the criteria.

The State Plan

To be eligible for its allotment of funds, the Vocational Education Act of 1963 required that a state submit certain information contained in two documents—the State Plan and the Projected Program Activities. The State Plan was merely a recapitulation of the law and the regulations. Only from the Projected Program Activities was it possible for the Commissioner of Education to find out for what a state intended to spend its federal vocational education grant funds. In practice, the information submitted to the Office of Education has been most inadequate; yet the allotments have been paid to states as a routine matter. Never to date has a State Plan been rejected and funds withheld, despite clear authority to do so. There has even been doubt that the information which was submitted was seriously examined. The 1968 amendments developed an improved concept of federal-state relations. However, the language will be meaningless unless the Commissioner actually exerts the necessary leadership to put the new provision into practice. In fact, it is doubtful that the new provisions will be taken seriously until some deficient plans have been rejected.

The law lists the following specific requirements for approval of a State Plan:

—The State Plan must be prepared in consultation with the state advisory council.

—Local educational agencies must be given an opportunity for a public hearing before the state board.

—The State Plan must provide for a long-range plan—three to five years—for vocational education in the state. The annual program must include the annual activities which will carry out the objectives of the long-range program and must also indicate to what extent the recommendations of the state advisory council were considered.

—The State Plan must set forth in detail the policies and procedures for the distribution of funds to the local communities. When new local programs are needed but the local agency does not have the funds to pay the non-federal share of the cost to establish these new programs, federal funds may be used to pay the full cost of such new programs.

—The State Plan must indicate what cooperative arrangements have been set up at the state and local levels with the employment services, manpower organizations and other institutions concerned with manpower needs and job opportunities.

—An annual evaluation report must be submitted to the Commissioner.

The law specifically requires the Commissioner *not* to approve a State Plan until he has found that the state is in compliance with the provisions of the act and is satisfied that adequate procedures are provided to insure that the State Plan will actually be carried out. This directive imposes upon the Commissioner of Education the grave responsibility of assuring that the Declaration of Purpose becomes a reality in all states and communities of the nation. Thus, the new law transforms his role from paymaster to guardian of high-quality vocational education.

Is the Commissioner prepared to assume this role? The first indications will be found in the federal guidelines issued to implement the act. Potential contributions of those guidelines will be in part determined by the extent to which they incorporate the following:

State Plans should be required to list the specific information which will be made available to the Commissioner to enable him to determine whether or not the State Plan has been followed. No funds should be dispensed to states nor by states to local education agencies which do not regularly supply data needed for evaluation. Special assurances should be required from those states which have, in the past, supplied inadequate information or have supplied it too late to be of value. This could include the state writing into its State Plan that if it fails to submit these reports completely and promptly, it will return a portion of its state allotment to the Commissioner for allocation to other states. However, the abysmal state of current vocational education data is primarily the fault of the Office of Edu-

cation, which has neither requested the appropriate data, designed the appropriate reporting system for its reception and analysis, nor enforced even the meager reporting requirements supposedly in force.

Of critical importance are the provisions in the act dealing with the policies and procedures to be followed by the state in distributing funds to local educational agencies. For the first time, Congress has mandated that states take into account factors which influence performance, rather than distributing funds uniformly regardless of quality, cost or need. In the distribution of funds to local agencies, "due consideration will be given to the cost of the programs, services, and activities provided by local educational agencies which is in excess of the cost which may be normally attributed to the cost of education in such local educational agencies." High cost of education may be due to wise expenditures on quality education, or it may result from inefficiency. Presumably, only the former should be rewarded and the states should be required to indicate how such differentiation can be made.

The law specifies that "no local educational agency which is making a reasonable tax effort, as defined by regulations, will be denied funds for the establishment of *new* vocational education programs *solely* because the local educational agency is unable to pay the non-federal share of the cost of such new programs." [Emphasis added.] This will require each state to specify what is to be defined as "reasonable tax effort." "Reasonable tax effort" should mean at least average tax rates for that state. Unsuccessful attempts to pass tax referenda should not, however, be considered evidence of a "reasonable tax effort." Though the requirement is limited to *new* vocational education programs, states are not constrained from extending the provision to apply to all vocational education.

The law provides that funds will not be used for any program of vocational education which cannot be demonstrated to: "(A) prepare students for employment, or (B) be necessary to prepare individuals for successful completion of such a program, or (C) be of significant assistance to individuals enrolled in making an informed and meaningful occupational choice." Presumably any course which is a prerequisite for enrolling in vocational education but which is not also a prerequisite for all students would be eligible for funding under (B) or (C). This would include in many schools advanced industrial arts, specialized mathematics and science courses, etc.

Consumer and homemaking education programs under the new Part I of the 1968 law are included in the general State Plan. But these programs are not required to meet one of these three tests, namely to prepare students for employment. These special projects

are separately funded, have particularly defined purposes and should not be confused with training for "home economics" as an occupation. The guidelines should make clear the differences between "home economics" as part of training for gainful employment, and homemaking and consumer education. "Home economics" as a career, of course, must comply with all three tests provided in Section 123(a)(18).

Allotments and Payment to States

The 1968 act did not change the formula for allotting funds to the states. However, the reallocation provisions in the law, Section 103(c), need careful consideration because the Commissioner can and must establish by regulation criteria for reallocating unused funds within a state as well as among states.

The special funds appropriated for vocational education of persons with educational, socioeconomic, and other handicaps are excluded from reallocation to other uses. Apparently, consumer and homemaking education and cooperative vocational education programs are also exempt since the law allows specific reallocation to other states of funds for these programs unused within a state. However, unless the regulations established by the Commissioner are quite specific, the reallocation provisions could allow a state to transfer and use for other purposes those funds which have been appropriated for research, for the training of teachers, and for exemplary programs and projects.

In fixing criteria and setting the dates for reallocating funds, the Commissioner should consider these points:

Since the intent of Congress is clear that research, training, and exemplary programs and projects should be supported, the Commissioner should, on the first day of the fiscal year, re-allot to *other states* a particular state's share of funds appropriated for these three purposes if the state has not made provision in its State Plan for implementing these purposes.

Near the end of the fiscal year, the Commissioner should reallocate to other states all unused funds under title I of the 1968 act, also allowing the other states to spend these funds during the ensuing fiscal year.

Before funds allocated for research, training, or exemplary programs are allowed to be spent for other purposes within the state to which they were allocated, the state board *and* the state advisory council should be required to indicate convincingly to the Commissioner the reasons why support of research, teacher-training, or exemplary programs is not desirable or not feasible within the state at that time.

Re-allocation of funds to other states should give priority to states which have high unemployment, high dropout rates, low per-capita income, yet have specific plans for coping with these problems.

The amendments contain a maintenance-of-effort clause requiring that no payments can be made to a local educational agency or to a state unless the Commissioner finds that the local school and the state were spending the same amount in the preceding fiscal year as they were spending a year prior to that. The purpose of this requirement is understandable. The federal government has every right to expect that its funds will not be used to replace state and local efforts. At the same time, inflexible administration of the provision may conflict with the broader objectives of the act. For instance, as a local school district expands or becomes involved in a part-time cooperative effort, the costs to the local school may decline, even though it may serve a larger number of students more effectively. Similarly, it may be difficult for a school simultaneously to abolish an obsolete program and start a new program at the same level of expenditure.

Federal guidelines should certainly stop the current practice in certain states of requiring a maintenance of effort in each of the current programs in a local school. This has the effect of penalizing a school which starts an excellent vocational program before the State Plan is changed to allow such a new program to be reimbursed, and it also makes it extremely difficult for a school to abolish an obsolete program.

Research and Training

Congress completely rewrote Section 4(c) of the Vocational Education Act of 1963, which, for the first time in the history of vocational legislation, allowed federal funds to be used for research and demonstration projects. The revision reflects not only growing disillusionment with all federally funded research, but specific displeasure with the provisions and some of the results of the 1963 act. For this reason, Congress attempted to give further legislative guidance. Unfortunately, this revision does not benefit vocational education research. Moreover, the language in an important part of Section 131 of the 1968 act relating to research and training is so ambiguous that legal counsel will have an important voice in interpreting Congress's mind.

The Advisory Council on Vocational Education very carefully analyzed the experiences of three years of research activities in vocational education. It found genuine concern about the nature as well as the value of the research projects among various groups. The

most frequent criticisms fall into three categories: (1) the reported research projects failed to have an impact on new programs, (2) the results of research had not been translated into operational programs, and (3) the results were not disseminated among vocational educators and other persons interested in vocational education. The latter shortcoming was due to a peculiar legal interpretation by the legal counsel of the Office of Education that because the 1963 law did not specify dissemination, no money could be spent for that purpose.

To improve the effectiveness of vocational education research, the Advisory Council recommended that the U.S. Commissioner of Education allocate the research funds in the most effective way among these three organizations: to universities, colleges and other public or non-profit private institutions for research and dissemination of research results; to the operating agency (Bureau of Vocational, Adult, and Library Programs of the Office of Education) for evaluation, demonstration, and experimental programs; and to the states for state research coordinating units and for state conducted research, evaluation, demonstration, and experimental programs.

Congress made fundamental changes when it rewrote the research functions under the Vocational Education Amendments of 1968, but it rejected the Advisory Council's recommendations.

The new Part C of Title I of the 1968 law authorizes the Commissioner to make grants and enter into contracts for 50% of the total sum available to the states for research. The remaining 50% shall be used by the states in accordance with the State Plans to pay up to 75% of the cost of the research coordinating units and up to 90% for grants for research and training programs, experimental, developmental, or pilot programs. Projects for disadvantaged youth and dissemination of the results of these projects are singled out for special notice.

The act provides that research funds shall be used for six purposes: research; experimental, developmental, and pilot programs and projects designed to test the effectiveness of research findings; demonstration and dissemination projects; training programs designed to familiarize persons in vocational education with research findings and with successful pilot and demonstration projects; development of new curricula; and development of new careers and occupations.

The wording of the new Section is so unclear that it is uncertain whether the Commissioner may use "his" 50 percent of the research allotment for grants and contracts on the national level wherever he so decides or whether he must use it in only the state of which total allotment it is one-half.

A restricted interpretation, forcing the Commissioner to make research grants and contracts only within a state in exact proportions to the amount of vocational education operating funds allotted to that state, would have seriously curtailed the quality of research. The number of qualified research institutions is just not proportional to the state allocations. The vocational education research laboratories would have been penalized since, for instance, the amounts expended in North Carolina and Ohio on two national laboratories established there would more than consume the entire amount of research funds which could have been allocated to those states. Not only would it have crippled the laboratories, but it would have prevented any other vocational education research from being conducted in those states. Even worse, research programs of regional or national importance could not have been conducted unless state directors of a large number of states were to agree to allow funds from their states to be pooled. USOE legal counsel has now ruled that 50 percent of Section 131 funds may be allocated as the Commissioner sees fit, with no geographic restriction. It is to be hoped that this ruling will be upheld in face of almost inevitable challenges.

Congress ignored the Advisory Council's recommendation to make research funds available to the operating Bureau of Vocational, Adult, and Library Programs but did not forbid or hinder the Commissioner of Education doing so. If it was the intention of Congress that in-house research be funded from the operating budget of the Office of Education, it has yet to make such a specification in the appropriation. In fact, the Division of Vocational and Technical Education seems to end up with a smaller share of the USOE budget each time its duties are increased. The tendency of operating bureaus to concentrate research on operating problems was noted by the Advisory Council on Vocational Education. It was this concern which led the Commissioner of Education to assign all Office of Education research funds to a separate research bureau. The result was a shift to the opposite extreme. Research which does not ultimately affect the way people are prepared for employment, including the operations of vocational education, is of little value. The Commissioner could once again reorganize the research structure of the USOE, thus transferring all or part of the research functions to the operating bureau, but this might swing the pendulum too far in the operating direction. Alternatively, and preferably, the Commissioner could allocate a sizable amount (perhaps 10 percent of "his" funds) to the Bureau of Vocational, Adult, and Library Programs for operational research.

Special Programs and Projects

In addition to the overall state grant program of vocational education, the Vocational Education Amendments of 1963 provided seven special programs to cope more effectively with the rapid changes brought about by technological and economic progress—giving particular attention to the special problems facing the large cities.

Two of these special programs—work-study and residential schools—were incorporated in the Vocational Educational Act of 1963. Residential schools were never given a chance because the administration never sought funds for them, not even for a pilot project, and Congress never made any appropriations. Work-study programs were operative during the three fiscal years 1965-67.

The five new programs in the 1968 act include exemplary programs, cooperative vocational education, consumer and homemaking education, curriculum development, and leadership and professional development.

The special programs and projects have an important role in occupational preparation. Vocational education must look beyond the classroom and the school shop. It must be receptive to experimentation, to the relative advantages of on-the-job as well as institutional training, to cooperative work-study programs. Effective occupational preparation, even if once attained, could not survive long if teachers, trainers, and other professional personnel were not continuously exposed to new techniques and experimentation. It is highly significant that Congress accepted most of the special programs recommended by the Advisory Council.

Exemplary Programs

The purpose of this provision is to find new ways to reduce the continuously high level of youth unemployment. It authorizes federal grants for such projects as: planning and development of exemplary programs; familiarizing elementary and secondary students with the broad range of occupational opportunities; providing work experience; providing occupational guidance and counseling as well as job placement; improving vocational education curricula; personnel exchange between schools and other agencies; training working youths to increase their educational attainment; providing preprofessional training for high school students to become vocational teachers.

One-half of the sums allotted to each state is used by the state for grants to local educational agencies, non-profit institutions or business concerns. The other half of the allotment is at the disposal

of the U.S. Commissioner of Education for grant to or contracts with state boards or other organizations qualified to obtain funds from the state. The Commissioner may make no grant or contract unless the program or project has been submitted to the state board of the state in which it is to be conducted and has not been disapproved by the state board within 60 days or within such longer period of time as the Commissioner may determine. The application of this provision should permit a local education agency to submit a project to the state board simultaneously with its submission to the Commissioner. If the state board does not disapprove it within 60 days, the provisions of this paragraph should be considered met. If for any reason the local education agency fails to submit the project to the state board, then and only then should the Commissioner submit it to the state board for review.

Judgment will be necessary to determine the exemplary nature of any particular proposal within its own context. An effort tried elsewhere and new only to the area from which the proposal comes may precisely fit the need. On the other hand, care must be exercised to assure that scarce funds are not used to try supposedly new ideas which elsewhere have proven ineffective in contributing to the objective of reduced youth unemployment.

The legal language prescribes help for "young persons," without definition. The guidelines should fix the ages as six to 24. Since federal funds are authorized for programs to familiarize elementary school students with the broad range of occupational opportunities, the age of six seems obvious. Age 24 is suggested as the maximum, both because national labor market data show high unemployment through age 24 and because help may still be needed at this age for those who have served in the armed forces or have returned seeking postsecondary education after having been school dropouts.

The act provides that the U.S. Commissioner of Education can use his portion of a state allotment only for projects within the particular state for which the total allotment is made. However, provisions could and should be made for exemplary programs extending across state lines, especially in metropolitan areas.

Funds may be used for planning and developing *or* establishing, operating, or evaluating exemplary programs and projects. The emphasized "or" seems undesirable, since this could be held to require separate contracts for developing and for operating an exemplary program. Separate contracts for planning may at times be desirable, but the Commissioner should have freedom, where desirable, to write a single contract for further planning, development, establishment, operations, and evaluation.

No project can be financed for more than three years. The three-year limitation of financial assistance to a project should be interpreted in such a way as to permit the Commissioner or the state board to contract for evaluation of or dissemination of the results of exemplary programs, even though this might be done after the program had been in operation for more than three years.

Residential Vocational Education

The relationship between the Job Corps and the residential vocational school provisions of the 1963 and 1968 acts is too obvious to escape notice. Job Corps emerged from two not entirely consistent interests: memories of the effective Civilian Conservation Corps during the mass unemployment of the 1930's and concern for the large numbers of young men being rejected for military service. The assumption upon which the Job Corps Urban Centers (residential vocational schools for the disadvantaged) were based was that large numbers of young people spent their lives in home and neighborhood environments so debilitating that rehabilitation in that environment was not possible. The assumption was never proven true, and no tests were ever developed to identify those who did and did not require expensive residential training. Its inability to justify its high costs in comparison to available nonresidential programs for similar clientele is at the root of the criticism of the Job Corps. Yet large numbers of youth are scattered over areas of such limited population that meaningful vocational education in a nonresidential setting is impossible.

The launching of the Job Corps undoubtedly had much to do with the failure of the administration to request and the Congress to appropriate funds for the demonstration residential vocational schools authorized by the 1963 act. The 1968 amendments reiterated the need only a few months before the new administration's reconsideration of the Job Corps program and its reassignment to the Labor Department. Clearly, no one knew what to do with the program and its some \$150 million of capital investment. The facilities in many states were too large relative to state needs, finances, and administrative capability for absorption by state education agencies. Assignment to the Labor Department seemed to indicate a continued remedial, disadvantaged, and urban emphasis. An attractive alternative would have been a national OE-run program of residential vocational schools, catering to a primarily rural clientele, preventive as well as remedial in focus and not limited to the disadvantaged, though most enrollees would have undoubtedly met poverty criteria. Though coincidental and only partially rele-

vant, the 1963 experiences suggest that the 1968 residential provisions cannot be considered in isolation from the disposition of the Job Corps.

The residential section of the 1968 amendments provides federal funds for three programs:

Demonstration schools.—The U.S. Commissioner of Education may make grants to state boards, universities, and colleges, and—with approval of the state board—to local school agencies and other public organizations for the construction and operation of residential schools for youths between ages 15-21. Special consideration is to be given to the needs of cities with substantial numbers of dropouts or unemployed.

Special grants to states.—Federal funds are allotted to the states for planning, construction, and operation of residential vocational schools for youths age 14-21. The federal share is not to exceed 90 percent of the total costs per fiscal year.

Grants to reduce borrowing costs.—The Commissioner is authorized to make grants to state boards, universities, and colleges, and local education and other public agencies to reduce the borrowing costs for the construction of residential schools and dormitories by covering interest payments over 3 percent per annum. The residential school section has two conflicting provisions. For the purpose of establishing demonstration schools, the minimum age is 15; while for the other two programs, the minimum age is 14. The minimum age of 14 should be uniformly adopted. Demonstration projects require special consideration of the needs of large urban areas while debt reduction grants require the Commissioner to give special consideration to urban *and rural* areas. Preference in both programs should be given to the latter requirement, since it is less restrictive.

The 1968 act makes it clear that residential schools are not to be used as penal schools for juveniles. However, there is no reason that juveniles who have at some time or other been in trouble because of their delinquent conduct could not be assigned to residential schools as long as the emphasis is upon the prevention of juvenile delinquency or on rehabilitation, and if the juvenile is free to leave the school at any time.

Consumer and Homemaking Education

It must be reemphasized that this special program does not relate to employment preparation for such occupations as food services. The objective is to prepare for the role of homemaker, not for wage-earning employment. Occupational training in the fields commonly known as "home economics" falls under comprehensive vocational education funded by the general grants to the states and must be

given adequate attention there. The definition of homemaking education in the act is entirely new. Its purposes are: (1) to encourage greater consideration of social and cultural conditions and needs, especially in economically depressed areas; (2) to contribute to the employability of youths and adults in the dual role of homemaker and wage earner; and (3) to prepare for professional leadership in programs for these purposes. The act stresses the priority of attacking the problems of the poor and the working-wife homemaker. The program carries the 90-10 federal-state matching formula, hitherto more typical of anti-poverty and manpower programs than vocational education. At least one-third of the federal funds are to be used in economically depressed areas or areas with high rates of unemployment and are to be spent "to assist consumers and help improve home environments and the quality of family life." The assignment is a new one, almost totally unfamiliar to home economics teachers and requiring development of home extension services as well as in-school courses.

Only time will tell whether the challenge can be successfully met. The first test of commitment will be the extent to which the undesignated two-thirds of the federal funds available under this section are also used in ways which reflect the reorientation toward serving the disadvantaged.

Ancillary services such as teacher-training, curriculum development, evaluation, and state administration may be paid from funds appropriated under this new section. In order to avoid undesirable segregation of state staffs, teacher-training staffs, and local administration, it should be possible for the local schools and the state to report simply the proportion of time spent on consumer and homemaking education and on home economics for wage earning occupations. For certain teacher education courses, curriculum development research, and experimental programs which contribute both to consumer and homemaker education and to wage earning competencies for women, a simple percentage allocation of total budget should suffice to determine which portion should be paid under this section and which should be paid from the regular vocational education funds. At the same time, since the natural tendency will be to drift toward the easier and more familiar tasks, constant monitoring will be necessary from the federal and state levels to assure that the target groups are in fact being served.

Cooperative Programs

The 1968 act defines "cooperative work-study" as a program of vocational education for persons who receive instruction through a cooperative, jointly planned and supervised arrangement between

school and employers, alternating classroom study with on-the-job experience. The program is new in that cooperative education is for the first time singled out for special attention and authorization in the federal law. Nevertheless, cooperative vocational education has a distinguished history, though too limited in size relative to its advantages.

The new amendments make earmarked federal assistance available to the states to provide coordinators and instructors for cooperative programs, to reimburse employers for certain added costs incurred in providing on-the-job training through work experience, and for other costs, such as transportation of students.

Among the conditions under which a state may receive federal funds are the following considerations that must be assured in the state plan:

— Cooperative programs must provide training opportunities that otherwise may not be available.

— Such programs are to be developed in cooperation with employment agencies, labor groups, employers, and other community groups.

— Reimbursement to employers is available only where on-the-job training is related to existing career opportunities and does not displace other workers who perform such work.

— Priority is to be given to areas that have high rates of school dropouts and youth unemployment.

The cooperative work-study section also leaves many issues to administrative discretion. The minimum age for youth to be enrolled in cooperative education programs should be set at the minimum allowed by each state for remunerative employment. No maximum age should be specified, so long as the student is enrolled for credit at any level through the 14th grade. Particular attention should be paid to the development of cooperative vocational education programs in postsecondary education.

Any work experience which is approved by the local educational agency as having practical vocational and educational value should be approved by the state for cooperative vocational education. "Instruction related to work experience" may include vocational counseling and education regarding work habits and attitudes, career planning, the economics of employment, and other instruction relating to more than one occupation, as well as the theory related to a specific occupation.

Determination by a local director of vocational education and his advisory committee that reimbursement of employers for added costs can make possible the enrollment of substantial numbers of additional students should be sufficient justification to allow such payments to

all or a portion of the cooperative vocational education programs conducted by that local educational agency. When the added costs are small, say under \$300 per academic year per half-time trainee, no accounting should be required, beyond the certification of the employer and the school that the student did receive appropriate on-the-job training. To require expensive accounting for small amounts will defeat the purpose of reimbursement. Costs in excess of \$300 per academic year or some other appropriate figure should require itemization.

The determining factor in the approval of cooperative vocational education programs should be the educational benefits to be derived by the individual student. These benefits must be assured in the short run through careful educational planning. In the long run they, like all other educational benefits, must be determined by careful evaluation and follow-up procedures.

The proportion of time spent in school and on the job in cooperative education programs should be determined by the school after consultation with the employer. For any one local education agency, the average proportion of time spent by students at such programs should be approximately half formal education and half on-the-job training, but for an individual student, the proportion of time may be considerably different, depending on his needs and on the requirements of the occupation and of the school. A written contractual agreement should be approved by the student learner, the employer, and the local educational agency. Student learners should be evaluated by the employer and the teacher-coordinator.

Unless a different plan is approved by the state board of vocational education, school credit should be granted on the basis of one hour of class being equal to two hours of on-the-job training experience. To qualify for credit, the student should have a minimum of 10 hours of on-the-job training per week on the average, during the school year. Additional credit for summer on-the-job training could be granted even though the student was not enrolled in formal instruction other than related instruction. Credit should not be granted for on-the-job training which is not supervised by a coordinator employed by the local educational agency.

Provision for reallocation of unused funds for cooperative programs should give preference to those states which have the highest proportion of youths from low-income families enrolled in cooperative vocational education programs.

In order to insure an adequate supply of cooperative vocational education coordinators, local educational agencies should also be reimbursed for the costs of released time for coordinators and supervisors of cooperative vocational education.

Work-Study Programs

In contrast to the new cooperative work-study section of the act, work-study was introduced in 1963 as a source of income to needy students, unrelated to the learning potential of the job. It provides that a vocational education student may be employed by the local educational agency or any other public institution under the following conditions:

- He is a full-time vocational student.
- He needs an income to start or to continue his vocational training.
- He is between 15 and 21 years of age.
- He shall work no more than 15 hours a week for \$45 per month or \$350 per academic year (\$60 or \$500 respectively if not within commuting distance).

However, there is nothing in the law or in reason to prevent vocational educators from teaming income needs with relevant work experience. Local educational agencies should be encouraged strongly by the state board to insure, to the maximum extent practicable, that the work assignments of students under work-study programs are related to their educational and occupational goals. States should have the option to use all or a part of their work-study funds for cooperative vocational education programs, provided the students meet the legally prescribed conditions.

Curriculum Development

The 1968 act enables the U.S. Commissioner of Education to make federal grants to or contracts with state boards, colleges or universities, and other organizations for the following purposes:

- to promote development and dissemination of vocational education curricula,
- to coordinate curriculum preparation nation-wide,
- to survey materials prepared by other government agencies,
- to evaluate curricula,
- to train specialists in curriculum development.

The act's definition of curriculum materials as "a series of courses to cover instructions in any occupational field" is too narrow. Curriculum materials should include such materials as occupational and task analyses, text materials, audio-visual aids, programmed instruction materials, tests, and other evaluation materials, and should be defined to cover materials for leadership development as well as for direct vocational and technical instruction. A better definition would be that curriculum materials include any materials designed to improve the quality of instruction in any phase of vocational and tech-

nical education including occupational guidance and counseling and any other related programs such as exemplary programs and projects, residential vocational education, consumer and homemaking education, cooperative vocational programs, and training in development programs for vocational education personnel.

It is unclear why surveys of curriculum materials produced by private industry training programs and those of other private organizations were not included in the legislative language along with those produced by government agencies. Undoubtedly, it was an oversight which can be remedied in administrative guidelines.

Perhaps the most wasteful effect of the presently uncoordinated curriculum development program has been for some 12 states to prepare curriculum materials which are largely duplicative. Of first priority should be the development of curriculum materials for occupational fields where instruction is being offered or is about to be offered, but where no satisfactory materials are presently available. Second priority shall go to curriculum materials which are of value across all occupational programs, e.g., instruction on how to obtain employment, desirable work attitudes, and the economic and social importance of employment. Third in priority should be improvement of those existing programs with the largest enrollment and those in which employment needs suggest that programs should be expanded in size as well as in quality.

Training and Development Programs for Vocational Education Personnel

For the first time since the Smith-Hughes Act of 1917, systematic attention was given to the development of personnel to conduct vocational education programs. The Vocational Education Amendments of 1968 achieved this objective by amending the Education Professions Development Act of 1965 which until now had largely ignored vocational education.

The Act includes two programs: grants to individuals for full-time advanced study of vocational education for up to three years, and programs of teacher exchange and in-service training.

The Commissioner of Education may give "leadership development awards" consisting of stipends and university tuition to persons who have one of the following qualifications:

—at least two years of experience in vocational education or, in case of researchers, experience in social science research which is applicable to vocational education,

—at least a baccalaureate degree and currently employment or assurance of employment in vocational education,

—recommendation by the employer for their leadership qualifications in vocational education and eligibility for graduate study.

The Commissioner may also make grants to the states for cooperative arrangements between schools and industry or other educational institutions for:

—exchange of vocational education teachers and other personnel with skilled technicians or supervisors in industry,

—in-service training,

—short-term or regular-session institutes.

Special consideration is to be given to programs designed to familiarize teachers with new curricula.

Unfortunately, the law is not at all specific about ways in which *new* teachers in technical education, trade and industrial education, and distributive education can be recruited and trained. People in these fields often do not hold a baccalaureate degree at the time they begin teaching and, hence, would not be eligible for leadership development awards. Moreover, the new trend in agricultural education, home economics, health education, and business education will require instructors who are unlikely to hold baccalaureate degrees. It is also highly unlikely that Congress intended to limit training and development programs for vocational education personnel to the traditional fields. Unless special care is taken, the effect will be to discriminate against instructional personnel for new and emerging fields where baccalaureate degree programs are not now offered and where employment opportunities in business and industry are so great as to require special incentives to persuade capable personnel to enter the teaching field.

One way out of this dilemma would be to interpret the law quite broadly. Persons who have had two years of experience in industrial training rather than vocational education are also eligible for leadership development awards. Most persons who would be desirable as teachers in new and emerging programs of vocational and technical education will have other employment as a part of their work experience. If "industrial training" were to be defined to include such work experience and not be limited to employment by an industrial training department, the problem of recruiting and training vocational education personnel would be greatly eased in the very fields where the greatest assistance is needed.

First priority for leadership development awards should go to instructors in vocational and technical education fields where there are already serious shortages, with second priority to the development of administrators and supervisors for local and state education agencies. It is likely that some of the most severe shortages will be in the areas of the special programs under the 1968 act.

Under the new legislation, at least some of the fellowships will go to persons who are selected by their employer as having leadership potential in the field of vocational education. It would still be necessary by law for a person to be eligible for admission as a graduate student in an approved program of higher education, but the primary selection would be by the employer, rather than by the institution of higher education. To help insure that employers select high quality individuals, a recipient of an award should be required, as a condition of acceptance of the fellowship, to return to work for the employer for the same length of time as was spent in the fellowship program. At the same time, the employer must agree to provide employment for a similar period of time. As pointed out earlier, the requirement of admissibility to graduate programs eliminates many staff members who need and can profit from training. Future legislation should allow greater flexibility for those whose occupational experience fits them with unique capabilities not produced by nor necessarily accompanied by a bachelor's degree.

The law requires that the Commissioner pay to persons who are selected for leadership development awards such stipends, subsistence, and other expenses as are consistent with prevailing practices under comparable federally supported programs. If highly qualified individuals are to be attracted to teaching and other leadership positions in vocational education, the leadership awards program must appear attractive in comparison with employment in industrial training programs, and in middle-management, sales, production, design, and service occupations. The Canadian experience has been that awards for such people must be in the \$6,000 per year range in order to be attractive in comparison to the relatively low salaries that skilled workers and professionals earn in Canadian industry. This would suggest that in considering "comparable federally supported programs," the Commissioner should consider such relatively well-paid fellowship programs as those for veterinarians, physicians, and law enforcement officers.

The institution of higher education offering the vocational education leadership development program is to be approved only if "the institution offers a comprehensive program in vocational education with adequate supporting services and disciplines such as education administration, guidance and counseling, research, and curriculum development." The term "comprehensive program" should be defined as a program which has one or more faculty members in each of the following: Vocational Education Programs, Research in Vocational Education, Exemplary Programs in Vocational Education, Consumer and Homemaking Education, and Cooperative and Work-study programs for Vocational Education; or at least one staff member in

each of four of the following: Agricultural Education, Business and Distributive Education, Health Education, Technical Education, Trade and Industrial Education, and Home Economics Education. Further, a comprehensive program must be offered through a single department in a university, or must have a coordinator and policy committee who could insure that administrators in training (and preferably teachers also) would have at least one-fourth of their specialized graduate program designed to emphasize the unity of vocational and technical education principles, in-service training, use of advisory committees, curriculum development, and evaluation. Preference should be given to programs which emphasize the unity of vocational and general education.

Leadership development awards shall be apportioned equally among the states, taking into account such factors as the state's vocational education enrollments and the incidence of youth employment and school dropouts in the state. Presumably, high incidence of each of these three factors should increase the number of awards offered to a particular state. There are no commonly accepted procedures for determining school dropout rates. An effective substitute might be census information on the average educational level of young adults. The formula might be based on (a) state enrollment in vocational education as a proportion of the state population between the ages of 14 and 21, times (b) the state unemployment rate for youth of ages 16 to 21 years as a proportion of the national unemployment rate for youth for the same age, times (c) the average national education level for young adults, divided by the average state education level.

Half of the leadership development awards should be given by approved programs of higher education, and the remaining half should be given by or designed by employers or prospective employers of vocational leadership personnel. This latter half would be usable in any approved institution of higher education. Each state board would decide how to apportion its leadership awards to local education agencies. Leadership development awards which are offered by local education agencies, but which are not used because the individual failed to enroll in a program of higher education, should be allocated by the Commissioner to otherwise qualified candidates in such a manner as to insure equitable apportionment of the total awards program on the formula outlined above. Any student who fails to make satisfactory progress toward his program objectives should be terminated and his "slot" given to another qualified candidate. If there were not sufficient qualified applicants to use the leadership awards apportioned to any state, the leadership award

allotments for the state could be transferred to other states with an excess of qualified applicants.

Advisory Councils

The Vocational Education Act of 1963 established a National Advisory Committee to the U.S. Commissioner of Education and a National Advisory Council to the Secretary of Health, Education and Welfare. It also directed the establishment of state advisory councils, but made them mandatory only where the state boards lacked representation from labor, management, and colleges and universities, and assigned them no particular responsibilities.

The National Advisory Committee was merely advisory in a general way on policy matters arising in the administration of the various vocational education programs, including regulations, the procedures regarding the approval of state plans, research projects, and residential schools. The National Advisory Council was the one-time, *ad hoc* council assigned to review the administration of all vocational education programs and to make recommendations for administrative and legislative changes, the report of which comprises the early sections of this volume.

The *ad hoc* National Advisory Council was critical of both the performance of the national and the state advisory committees and of the Office of Education for not making better use of them. Partly as a result of that criticism, the 1968 act assigned to advisory committees a new role in the administration of vocational education programs, providing them with their own independent staff and budgets and assigning them responsibility for independent program evaluation.

National Advisory Council

The law now requires a National Advisory Council of 21 members, appointed by the President and representing a wide variety of groups, including persons familiar with new and emerging occupational fields and with the educational needs of the disadvantaged and the handicapped. The powers and duties of the National Council are: (1) to advise the Commissioner on the administration and operations of programs, including the preparation of regulations; (2) to review vocational education programs, to make recommendations, and to submit annual reports to the Secretary of Health, Education and Welfare and to the Congress; and (3) to conduct independent evaluations and to publish their results.

In addition, the National Council should provide technical assistance to state advisory councils, especially in the area of evaluation

data and techniques. The National Council has also the specific responsibility to review annually the possible duplication of vocational education at the postsecondary and adult levels within a geographic region.

State Advisory Councils

State advisory councils are now mandatory in all states and their responsibilities are explicitly spelled out in the law. The members of a state advisory council are appointed by the Governor or by the state board where that body is elected.

State advisory councils are to be composed of:

- representatives of management, labor, and of industrial and economic development agencies;
- colleges and universities and area vocational schools;
- persons familiar with the administration of state and local vocational education programs;
- specialists in vocational education programs, including programs in comprehensive secondary schools;
- representatives of local school systems, including school boards;
- representatives of manpower and vocational education agencies, including CAMPS (Comprehensive Area Manpower Planning System);
- representatives of schools with large concentrations of disadvantaged youths;
- persons familiar with the problems of the handicapped;
- representatives of the general public, including persons familiar with the problems of the poor and the disadvantaged.

The powers, duties and responsibilities of the state advisory councils are:

1. to advise the state board on the administration of the state plan, including preparation of annual as well as long-range plans;
2. to evaluate all vocational education programs and to publish and distribute the results of such evaluation studies;
3. to prepare an annual report which evaluates the effectiveness of the vocational education programs in the state and which specifically compares performance with the program objectives of the long-range and annual plans. This annual report shall include recommendations for changes as may be warranted by the evaluation. This annual evaluation report shall be submitted through the state board to the U.S. Commissioner of Education and the National Advisory Council, together with additional comments by the state board.

The state advisory council shall hold at least one public meeting each year at which the public has an opportunity to express views on vocational education. The law authorizes a state council to hire

professional and clerical personnel and to make contracts for the preparation of studies necessary for the preparation of the annual evaluation report. It also authorizes annual appropriation of funds for the cost of the administration and development of state plans, for the activities of advisory councils and their evaluation and dissemination activities. From these funds, the U.S. Commissioner of Education is to pay to each state council an amount equal to one percent of the state's allotment for comprehensive state programs, but no less than \$50,000 each fiscal year.

The Outlook for Advisory Councils

If the National and State Advisory Councils function as independently as contemplated by the authors of the 1968 amendments, Section 104 dealing with that subject may turn out to be the most innovative of the entire legislation. In brief, non-administrators, representatives of various local, state, and national groups with a stake in vocational education and training, will now be able to hire their own staffs to make independent evaluations of programs and activities and to submit their own reports. Merely advisory recommendations could have been easily ignored. In their new role, the advisory councils will participate in shaping the general policy of vocational education and will actually review individual programs and projects, reporting their shortcomings and achievements independently to the legislature and the public.

Some administrators of vocational education programs may consider these new responsibilities of the councils as an intrusion on their executive functions. Hopefully, however, this new concept of "non-professional" councils may have the effect of marshalling all the resources of the community—technicians and administrators as well as the community groups which represent the "customers" of vocational education and the organizations responsible for economic and manpower planning. This "systems" approach to vocational education may result not only in more effective programs but also in more efficient administration and leadership of vocational education.

But will the intent of Congress be carried out in practice? This is difficult to predict and will depend to a large degree on the leadership given by the U.S. Office of Education. Will the Commissioner determine the functions of the advisory councils in such detail that the state administrators cannot minimize the legal responsibilities of the councils? Will the federal and state officials give guidance to the council members relative to their functions, e.g., how to review programs, how to keep informed about programs, how to analyze state reports? Will the Commissioner refuse funds to a state which disregards the new functions of the councils? The advisory

council provisions hold great promise, but fulfillment of that promise will depend upon who are the chairmen, members, and staff and the extent to which the Office of Education supports the effort and encourages independent evaluation.

To advise the Commissioner intelligently on the effectiveness of programs, the National Council must obtain meaningful reports and statistical data. Since the current reporting system is grossly inadequate, the Council will first have to develop or see that there are developed appropriate report forms and an effective means of data collection and analysis.

The annual review of the duplication of vocational education programs should include not only postsecondary and adult programs, but also secondary school, manpower, private school, private industry programs and all other programs designed to improve occupational competence. There may be desirable duplication, but new programs should not be approved without a survey of duplicate programs to assure that the new ones are justified by student needs.

The law provides that the state must certify the membership of the advisory council to the Commissioner of Education. The Commissioner should not approve a State Plan if the state has not fully complied with the membership requirements. In particular, a person involved in the administration of state or local vocational education programs should not be eligible for membership on a state council.

The annual evaluation report which is to be prepared by the state advisory council should be concluded by October 1 of each year. It should cover the school year and the summer school immediately preceding. It should be in the hands of the National Council by November 1. The Commissioner of Education and the National Council should specify minimum requirements for data to be contained in the annual evaluation report submitted by the state councils. Among the minimums prescribed should be a requirement that the number of man-hours of training should be specified, replacing the current mere head count of enrollees. Demographic data should include the age, sex, race, education, family income, and location of students by occupation and by success in the program and in employment. Since not content but result is the final test of performance, long-term, controlled-sample, longitudinal followup studies should be constantly under way. The research coordinating unit in each state should be responsible for followup of a sample of graduates of all programs at one, five, and ten year intervals. One index of the extent to which needs are being met would be the percentage of persons in the geographic area who could profit from the program who are actively involved in programs designed to meet their needs.

Approval of plans for establishment of the state councils and for their budgets should be contingent upon statements providing for the dissemination of the results of the evaluation to schools and other interested agencies in the nation and in the state. As a penalty for unsatisfactory performance, the Commissioner should not pay the advisory state council for work which is so inadequate or so late as to be useless in the national evaluation.

The Vocational Education Amendments of 1968 and The Advisory Council's Philosophy

As in any act reflecting convergence and compromise among various divergent and sometimes conflicting interests, the Vocational Education Amendments of 1968 reflect only imperfectly the philosophy endorsed by the Advisory Council on Vocational Education. That philosophy and its consequences were, in turn, not a perfected blueprint for all time. Yet it represented a step forward in the basic conception of preparation for employment and both the shortcomings and potential of the 1968 amendments can be measured against that yardstick.

The Council's philosophy was based on its conception of the essential unity of all forms of education, regardless of their immediate objectives; the growing need for adaptability among the work force; and the primacy of individual needs over those of the labor market. From that base flowed its operational principles, its concept of a unified system of vocational education, and its recommendations.

The definition contained in the new act is sufficiently broad to include "all of those aspects of educational experience which help a person to discover his talents, to relate them to the world of work, to choose an occupation, and to refine his talents and use them successfully in employment." The act asks vocational educators to increase their range of vision to include all aspects of general education which aid in preparation for employment. It can do little to bring to the general educator's attention the extent to which the techniques of "learning by doing" are applicable to all education. As one knowledgeable student of the labor market conceives it, all education should be viewed as a unity with, in effect, a vocational coordinator sifting the total experience to identify those elements of the educational process contributing to employability with others filling the same responsibility for family life, citizenship, culture, and others of education's multitudinous goals. The 1968 amendments in

no way conflict with this conception; they encourage it in many ways, but they do not make it explicit.

Early childhood orientation to the world of work is made possible in special programs for the socioeconomically, academically, and otherwise handicapped, through experimental and demonstration grants and in exemplary programs. To become incorporated within the experience of all elementary school children, the special projects must prove their worth and attract general education funds. The junior high school's needs can be met only to the same extent.

Even the funding recommended by the Advisory Council or the smaller but still impressive amount authorized by the 1968 act would be insufficient to provide education for employment to all who need it. Yet appropriations of the latter amounts are unlikely, given other financial pressures and lacking demonstration that current funds are being wisely used.

The 1968 amendments did nothing to fasten upon the education system any responsibility to aid in the difficult transition from school to work. The authorization for five million dollars each year to be transferred to the Labor Department for occupational projects should help assure wise counsel and valid choice. It does nothing to bridge the gap which so often exists between education and training institutions and those of the job market. However, the earmarking for postsecondary vocational and technical training not only encourages postponement of specific skill training to that stage, it provides an "aging vat," delaying final labor market entry until greater skill and experience make the transition into the working world a smoother one. Cooperative education is, by definition, a bridge between the school and the job. The specification of funds for that purpose and the authorization to underwrite the employer's added costs were the most important steps taken toward this goal.

It will be difficult under the 1968 amendments to ignore the needs of the socioeconomically and academically handicapped. The physically and mentally handicapped, most often treated by vocational rehabilitation only at the out-of-school level, are a worthy addition. The past attitude, as reflected in vocational education's participation in the Manpower Development and Training Act, has been: "We have to serve our traditional customers first, but give us extra money and we will use it for the disadvantaged." Now the latter must be given priority even at the expense of the nondisadvantaged when budgets are limited.

The residential school authorizations offer hope for the youth from isolated areas who, though emigration to an urban environment was probable, have been forced to make rural to urban transitions unprepared for lack of meaningful vocational education. The oft-

criticized emphasis on vocational agriculture has been more a function of the number of small rural schools than any deliberate misallocation of resources.

The new act's authorizations are relatively generous in support of facilities, equipment, ancillary services, leadership training, teacher preparation, and support of research, experimentation, and innovation. In short, while it still lacks some elements of the proposed unified system, it represents a major breakthrough in that direction.

The contributions of the 1968 amendments rest primarily in three sets of hands. The first responsibilities are federal. Authorizations are not appropriations. Despite the commitments of the Congress in 1968, the recommendations of the outgoing administration's budget for fiscal 1970 would, in effect, repeal major portions of the act. The reasons are understandable.

Given the limited change fostered by the 1963 act, despite a specific Congressional mandate, the Budget Bureau staff saw little reason to expect better of the 1968 amendments. Their recommendations, therefore, ignored the authorizations for increased funds for the basic state grant program. They agreed with the need to serve the disadvantaged and the handicapped but wanted to hold vocational education to the 1963 requirement to reallocate its existing funds to that purpose. To merely provide new and additional funds for the purpose was to relieve the pressure to establish priorities. The Job Corps' troubles and uncertain future suggested waiting before funding residential schools. Feeling that the research thus far had not been sufficiently productive, they suggested restricting it to less than one percent rather than 10 percent of the basic program funds.

The upshot of the Budget Bureau's distrust and disillusionment was a recommendation that the fiscal 1970 federal vocational education appropriations increase only \$20 million from the 1969 level with significant additions only for exemplary programs, consumer and homemaking and cooperative education; the first in hopes of bringing innovation and the latter for its proven worth (see Table 8). In addition, HEW added \$6.2 million for training vocational education personnel in the form of a transfer from the Education Professions Development Act. More money for the disadvantaged and the handicapped and for postsecondary education would be had at the expense of other uses through the percentage earmarking.

Interesting constitutional questions are raised by an executive branch determination of which among legislatively authorized programs shall be funded as contrasted with simply determining that national economic conditions require a general cut in expenditures. However, the issue is unlikely to be raised. If the heavy artillery of

TABLE 8. 1970 BUDGET REQUEST FOR VOCATIONAL EDUCATION
(In million dollars)

	Fiscal Year 1970		Fiscal Year 1969	Increase or Decrease over FY 1969
	Authorization	Budget Request	Appropriations ¹	
1. Comprehensive state programs				
—Grants to states:				
Smith-Hughes Act	7.2	7.2	7.2	—
Vocational Education Act of 1963 ²	503.5	230.3	248.2 ³	-17.9
—Research and training	56.5	1.1	11.6	-10.5
—Programs for persons with special needs	40.0	—	—	—
—National Advisory Council	0.15	0.2 ⁴	—	+ 0.2
—State Plans and advisory councils	Not specified	1.7	—	+ 1.7
—Transfer to Secretary of Labor (Projections of manpower needs)	5.0	2.0	—	+ 2.0
2. Exemplary programs	57.5	13.0	—	+13.0
3. Residential vocational schools	55.0	—	—	—
4. Consumer and homemaking education	25.0	15.0	—	+15.0
5. Cooperative programs	35.0	14.0	—	+14.0
6. Work-study programs	35.0	—	—	—
7. Curriculum development	10.0	2.0	—	+ 2.0
8. Training of vocational education personnel	35.0	6.2 ⁵	—	+ 6.2
9. Planning and evaluation	Not specified	1.0	—	+ 1.0
TOTAL	864.85	293.7	267.0	+26.7

Source: Bureau of the Budget

¹ Adopted by Congress prior to passing of Vocational Education Amendments of 1968.

² As amended by Vocational Education Amendments of 1968.

³ Includes George-Barden and supplemental Acts.

⁴ Includes technical assistance, compensation, and travel.

⁵ Not part of budget request but transferred from authorizations for Education Professions Development Act by administrative decision.

vocational education is unlimbered and directed toward the appropriations committees, as it undoubtedly will be, the prospects are for some increases over the Budget Bureau's recommendations. Unfortunately, the pressure will be only for more funds for traditional programs; new programs and research will get little attention. Nevertheless, the appropriations *en toto* will be less than they might have been with a more favorable endorsement from the Bureau of the Budget. The attitude reflected should be an adequate warning to those concerned with the level of funding as well as the quality of offerings.

However, there is a threat in the Budget Bureau proposals much more destructive to the objectives of the 1968 act than the mere withholding of funds. The essence of the 1968 amendments were re-orientation of vocational education on behalf of the urban and rural poor and the handicapped. They were the targets of the separately authorized programs for those with special needs, residential schools,

work-study programs, cooperative programs, the training of vocational education personnel, curriculum development, exemplary programs, and consumer and homemaking education. None of these were funded in fiscal 1969. Only the latter five were recommended for funding in fiscal 1970. All but the latter two were authorized for only two years and will disappear from the law books unless extended before June 30, 1970. Never having been funded, they will not have drawn the breath of life. They will not have demonstrated success, built a constituency, or in any way developed the ability to defend themselves. Unless funds are provided in the 1970 appropriations, all of the Congressional efforts, and those of the Advisory Council, on behalf of these concepts will have been for naught.

Without funding, there can be no programs; but money alone cannot assure achievement of the legislative objectives. Given funds, the extent to which the 1968 objectives are achieved rests with the U.S. Commissioner of Education and his staff. His is the responsibility, after appropriate consultation, to interpret the objectives of Congress, clear up ambiguities and transform broad objectives and non-specific language into a specific operating program. The first evidence of his wisdom and courage will be the guidelines and regulations issued to implement the amendments. The second will be his handling of the state planning process. The new state planning requirements give to the Commissioner all the power he needs to assure that state intentions are in accord with national priorities. He can insist upon the needed reorientation in vocational education but only if he understands and endorses those objectives and if he has the political courage and support to enforce them.

Given the historical lack of meaning of the state planning exercise at the federal level, it will require careful review of state plans and a firm rejection of inadequate ones before the states begin to take the process seriously. The correlation between what is written into plans and what occurs in practice may be low unless there is monitoring of performance and assessment of results followed by appropriate reward or punishment. The traditions of state autonomy are strong. Flexibility in the means of accomplishing national objectives should not be compromised, but ignoring Congressional directives should not be countenanced.

A key role nationally may also be played by the new National Advisory Council. Potentially, the new permanent National Advisory Council could be a major influence nationally with the state advisory council as important within their spheres. The strength of their role rests primarily with the choice and the vigor of the chairmen and

staff directors. The original National Advisory Council was hamstrung by its lack of independent budget and staff. Given those, a serious effort under the direction of a knowledgeable chairman and an aggressive staff could provide and perform objective oversight functions. State education establishments are traditionally self-perpetuating and autonomous, whether appointed by the governors at the behest of education leaders or elected. Where appointed by the governor, the state advisory council can become his watchdog. Once again, having the all-important independent staff and budget, a state advisory council which really knows and cares what vocational education is all about can have a major influence on state education policies. Where there is neither knowledge nor aggressiveness, whether nationally or at the state level, the advisory councils will be useless superstructure.

In the long run, however, it will be conversion of teachers and administrators throughout the system to appropriate objectives and practices which will determine the extent to which vocational education fulfills its potential. This slow process of winning commitment can be expedited, if the federal agency has its own objectives clearly in mind and can articulate them to the education community.

The 1967 Advisory Council formulated the principles of its unified system of vocational education for the edification of the Congress and the Office of Education, hoping through Congressional directives and appropriations and Office of Education surveillance, to begin the needed reeducation and reorientation among the states and within the schools. That concept, in turn, is not the end but a major step toward a broader goal: after reorienting vocational education to offer adequate preparation for employment, particularly to those who need it most, to use the techniques of vocational education to reorient all education.

If education is to be the primary formal source of preparation for life, it must be relevant to life. Vocational educators, for all their shortcomings, appear more conscious of that fact than their more academically oriented colleagues. The basic general education skills of the "3 R's," the understanding of one's society and his role in it, and the theoretical underpinnings of the various disciplines are the more durable aspects of education, but they do not automatically accrue while pursuing school for schooling's sake. The skills supplied by vocational education can contribute to success in employment as, with its consequent income and status, one of the key components of a successful life. Their obvious relevance can, if well done, become the vehicle giving relevance to academic subjects. Those

who enter the job market short of a bachelor's degree will remain the majority for a long time to come, despite rising educational attainment. Even the colleges can learn from the best techniques of education for employment. It is in this sense that some of vocational education's severest critics have the highest hopes for its potential contributions.

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