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REPORT TO THE CONGRESS

Training America's Labor Force: Potential, Progress, And Problems Of Vocational Education B-164031(1)

Department of Health, Education,
and Welfare

BY THE COMPTROLLER GENERAL
OF THE UNITED STATES

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OCT. 18, 1972



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D C 20548

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To the President of the Senate and the
Speaker of the House of Representatives

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This is our report entitled "Training America's Labor Force Potential, Progress, and Problems of Vocational Education" The program is administered by the Department of Health, Education, and Welfare. *AGC00022*

Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67)

Copies of this report are being sent to the Director, Office of Management and Budget, and to the Secretary of Health, Education, and Welfare.

James B. Stacks

Comptroller General
of the United States

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ABBREVIATIONS

GAO	General Accounting Office
HEW	Department of Health, Education, and Welfare

CHAPTER 1

INTRODUCTION

"New methods, materials, and machines are shaping a new world in which knowledge and skill are paramount. Much more than mere literacy and physical vigor is required of most people working with the new processes of an advancing technological society."

Department of Health, Education, and Welfare, June 1969⁽¹⁾

In this age of rapid technological change, America's labor force is faced with the necessity of training and retraining to keep pace with an ever-changing demand for job skills. Training may take many forms, but perhaps none is more important--at least in potential--than vocational education. It can be used to teach skills and good work attitudes to all age groups of the population--from youths in early years of schooling to adults who have developed poor work habits or who have discovered that yesterday's job skills are obsolete in today's world. Recognizing the value of such training, the Nation has invested billions of dollars--Federal, State, and local--in vocational education programs.

FEDERAL PARTICIPATION IN VOCATIONAL EDUCATION

The Federal Government has long recognized the importance of vocational education in training America's labor force. Since 1917, with the passage of the Smith-Hughes Act (20 U.S.C. 11), the Government has helped prepare persons for the labor market by providing funds to the States for vocational training. The George-Barden Act, which was effective from 1946 to 1968, provided additional Federal support to the States, authorizing funds for administration, vocational guidance, and training.

¹Source. HEW booklet that summarizes the Vocational Education Amendments of 1968, p. 1.

To help cope with the Nation's employment problems, the Congress passed the Vocational Education Act of 1963 (20 U.S.C. 1241). The act shifted program emphasis from training in limited occupational categories--agricultural, home economics, trade, and industrial--to training or re-training in a broad range of occupational skills for major groups of people--high school students (secondary); high school graduates (post-secondary); older persons; and persons with academic, socioeconomic, or other handicaps

As amended in 1968, the act authorized appropriations for regular vocational programs, programs for students with special needs (disadvantaged and handicapped), exemplary programs and projects, consumer and homemaking education, cooperative (industry/school) programs, work-study programs, research and training, curriculum development, and personnel training. The amendment also required the establishment of national and State advisory councils to evaluate these vocational education programs and to recommend changes as warranted.

Following enactment of the Vocational Education Act of 1963, expenditures for vocational education by all levels of government--Federal, State, and local--increased dramatically. Federal expenditures increased from \$57 million in fiscal year 1963 to \$447 million in fiscal year 1971, while State and local expenditures rose from \$254 million in fiscal year 1963 to \$1,951 million in fiscal year 1971. The increase in Federal expenditures is illustrated in the following chart.

ADMINISTRATION OF VOCATIONAL EDUCATION PROGRAMS

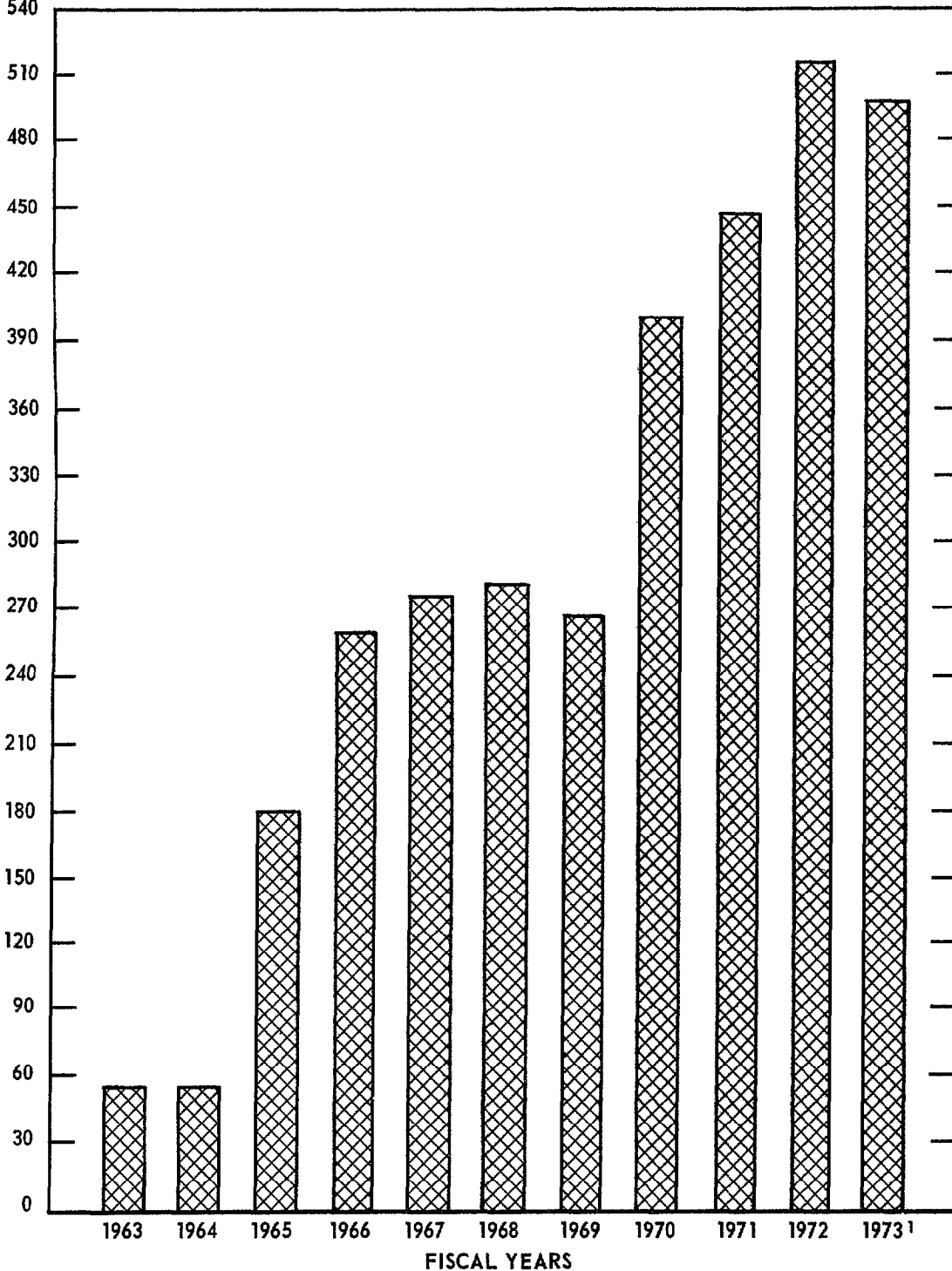
The Department of Health, Education, and Welfare (HEW)--the Federal agency responsible for vocational education programs--administers the programs through its Office of Education which has assigned the task to its Bureau of Adult Vocational and Technical Education. Field activities are administered by the Bureau's regional directors stationed in HEW's 10 regional offices. State departments of education are responsible for administering the programs at the State level.

States desiring to receive Federal funds for any fiscal year must submit a State plan to the regional adult,

vocational, and technical education director for approval. The plan must meet the requirements of the act and of HEW's implementing guidelines. Funds for permanent programs are allotted annually to the States on the basis of the number of persons of various age groups and the States' per capita income. Funds are also available for certain programs authorized for only a limited period. These funds are allotted solely on the basis of the States' population in specific age groups.

**GROWTH OF FEDERAL PARTICIPATION
IN VOCATIONAL EDUCATION SINCE
PASSAGE OF THE VOCATIONAL
EDUCATION ACT OF 1963**

FEDERAL APPROPRIATIONS
IN MILLIONS OF DOLLARS
540



¹ Amount requested

CHAPTER 2

VOCATIONAL EDUCATION NOT REACHING ALL WHO NEED IT

The objective of the Vocational Education Act--that all persons needing vocational education receive it--is far from being fully achieved at the high school level. In some high schools, students seem not to want vocational education even though it is available and facilities are underutilized. In other locations it is not even available.

The apparent inability of vocational education programs to attract the interest of students, parents, teachers, and taxpayers and to thereby become attractive training programs for those who could benefit from them is not a universal situation. Some high school vocational education programs are extremely successful in gaining community acceptance, attracting students, and resulting in jobs for graduates. The reasons for the wide variation among schools and locations are not clear, and not much research into the causes has been undertaken.

GOAL VERSUS ACHIEVEMENT--A WIDE DISPARITY

The goal of the Vocational Education Act, as stated in the 1968 amendments, is:

"*** that persons of all ages in all communities of the States--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, those with special educational handicaps, and those in post-secondary schools--will have ready access to vocational training or retraining ***."

The legislative history of the 1963 act and of the 1968 amendments indicates that the Congress intended that all persons who need vocational education should receive it and that anyone not completing a 4-year college program leading to a baccalaureate degree was presumed to need it.

The four States we reviewed had plans to provide vocational education to the majority of secondary students not going on to 4-year colleges. But, as shown below, only a small proportion of these students were receiving it in 1971, according to estimates by State officials and consultants.

	<u>Percentage of high school students</u> Presumed to need vocational education (note a)	<u>Receiving</u> vocational education	<u>Percentage of those</u> presumed to need vocational education who are not receiving it
California	80	20	75
Michigan	67	28	58
Ohio	60	25	58
Pennsylvania	50	28	44
Nationwide	60	38	37

^aPrimarily students not going to 4-year colleges. Students not receiving vocational education in high school can receive it under post-secondary training programs such as those offered in a 2-year community college.

Some progress has been achieved; in fiscal year 1965 only 24 percent of the Nation's high school students were receiving vocational education.

Reasons for the problem-- educators' viewpoint

Vocational educators at all levels have stated to us and in published reports that many high school students who need vocational education are not receiving it because (1) not enough money is available for vocational education and (2) it has a bad image (too many people--students, parents, counselors, and nonvocational teachers and administrators--think that vocational education is not the road to a successful career, because this can be attained only through a college degree).

The following are representative views expressed by vocational educators about the funding and image problems

--Too many persons relate vocational education to "shop" or "manual training" classes of the past, which became the repository of any child considered to be below average.

- Teachers and counselors are academically oriented and do not know about the advantages of vocational education. As a result, they direct promising students away from vocational education courses.

- Twice the amount of money presently available is needed to achieve the objectives of the act. The current level of Federal funding is comparable to a doctor trying to treat a large wound with a band-aid.

- At the local level, there is apathy toward vocational education. For example, one State hoped to build a vocational school in a certain county, but local voters turned down a tax proposal for providing their share of the funds.

We believe that the funding and image problems may be inter-related and self-perpetuating; vocational education's poor image could prevent it from being adequately funded and inadequate funding could make it difficult to overcome the bad image

Evidence tends to be conflicting

Our review showed indications of both an image problem and a lack of funds, as well as underutilized facilities, for vocational education in some school districts. However, we also noted situations where there did not appear to be an aversion to vocational education. These circumstances, discussed below, demonstrate the desirability of a detailed evaluation of the problem. Our review showed, however, that no specific studies on the image problem had been made.

Funding--is it enough?

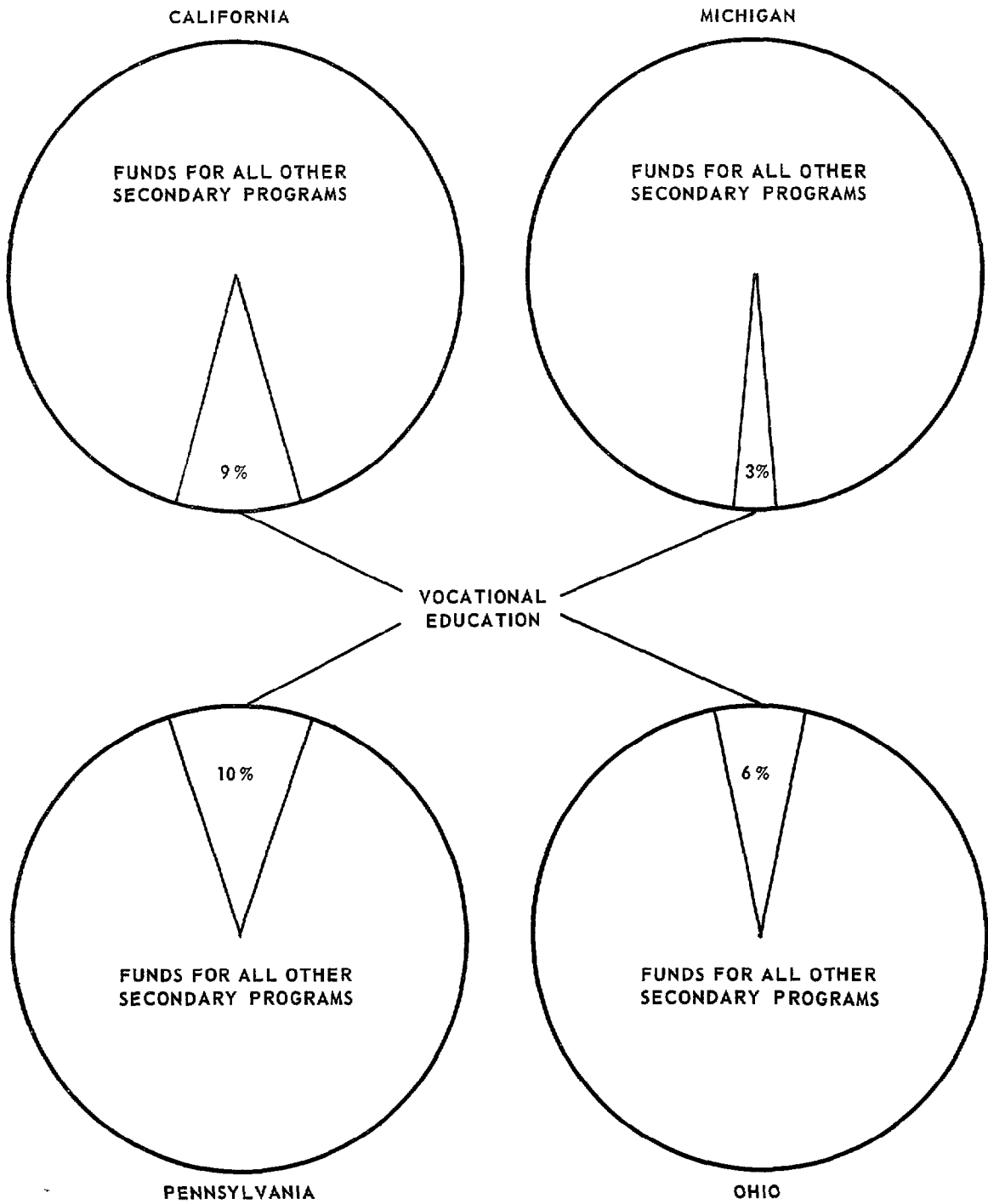
Vocational educators say they are not getting a fair share of today's education dollar, even at the secondary level where vocational education is most concentrated. We are not able to comment on the fairness of vocational education's share of total expenditures for education because of the subjective nature of such a judgment. The following chart illustrates, however, the percentages of the total expenditures for secondary education which were applicable to vocational education in the four States in fiscal year 1970.

We did find, however, that some school districts do not allocate any of their education dollars to vocational education. The following table, listing the total number of school districts and secondary students in the four States and the number of districts and students without any vocational programs during the 1970-71 school year, illustrates this.

<u>State</u>	<u>Number of districts</u>	<u>Number of students</u>	<u>No vocational programs</u>	
			<u>Districts</u>	<u>Students</u>
California	358	1,425,000	7	6,000
Michigan	527	593,000	106	46,000
Ohio	628	704,000	58	33,500
Pennsylvania	579	525,500	49	39,000

We could not determine the reasons for this situation. However, if the residents of school districts that did not have vocational education thought they needed it, it probably would have been made available.

**PERCENT OF SECONDARY EXPENDITURES USED FOR
VOCATIONAL EDUCATION FISCAL YEAR 1970**



NOTE Many students receiving vocational education also take subjects included under funds for all other secondary programs

Vocational education's image--
the differing views in large cities

The aversion to vocational education seemed to be most prevalent in the large cities included in our review, even though not all schools or vocational courses in the large cities had the problem.

In one large city, for example, equipment worth over \$250,000 for a course in machine shop was not being used to capacity. The school officials said that the equipment was used to only one-third of available capacity, because students and their parents believed that the vocational education student was being trained to be a "second-class citizen," as opposed to the ideal of going to college and achieving meaningful positions. The officials said this attitude prevailed, even though job openings were available locally for graduates of this course. On the other hand, we found instances in which vocational education's image appeared to be one of "a road to success."

In a comprehensive high school in a large city, school officials told us that there was generally a favorable image of vocational education. In fact, the school advertises its commercial food course in junior high schools throughout the city, and the students come from all over the city to attend the course. According to the officials, the course is always fully attended and graduates have no trouble finding jobs.

Officials in another large city told us that vocational education had an image problem in that city at one time, but that they thought it had been overcome for the most part. They said this had been achieved through such measures as constructing new buildings, getting better quality students into vocational curriculums, getting good industry cooperation, and ridding guidance counselors of their preoccupation with college preparatory curriculums. As evidence of the lack of an image problem, officials in this city cited strong citizen support for vocational education and one vocational school which has an excellent reputation in the city. This school, they said, had 600 applicants for the

1971-72 school year but could accept only 450 new students. They said the school's reputation had spread by word of mouth and was based largely on its record for placing its graduates.

A favorable image in some locations

The medium- and small-sized cities included in our review seemed to have much less of an image problem than the large cities. Vocational education officials in one medium-sized city said the image of their program could be, and was being, improved. The attitudes of nonvocational teachers and counselors was the area most needing improvement. Vocational education's image was such, however, that it had won widespread acceptance by the students, and the vocational classes were enrolled to capacity. According to the officials, the new vocational-technical school being opened for the 1971-72 school year was badly needed. Some of the most enthusiastic supporters of vocational education in this city were the vocational students. Officials said that vocational education's image was being improved by such measures as (1) the new vocational-technical center with its campus-like atmosphere, (2) the mixing of vocational and nonvocational students in nonvocational classes to the point that the teachers in these classes frequently could not tell them apart, and (3) the heavy involvement of the State employment service in the placement of vocational students into part-time jobs during school and into permanent jobs upon graduation.

CAREER EDUCATION PLANNED

The Vocational Education Act requires each State desiring funds to submit a State plan for vocational education which is reviewed by HEW for compliance with the act and with HEW's implementing guidelines. The four States' plans and the interpretation of objectives by State officials were consistent with the act, and the State officials agreed on the general direction to be taken in vocational education. They envision that the ideal system will include

- a kindergarten through sixth-grade program designed to create an awareness and a respect for work;
- a seventh- and eighth-grade program to provide exposure to the whole spectrum of employment and to build a basis for the career exploration program;
- a ninth- and tenth-grade career exploration program in which students will explore work possibilities and determine what they want to do;
- a program for dropout-prone youths of ages 14 and 15;
- a preparatory job training vocational education program for the majority of the students in the 11th and 12th grades (secondary level), or at age 16, which provides a significant breadth of vocational education so that any student, regardless of ability, can be trained;
- a post-secondary technical program for those students who have graduated, or have dropped out, from high schools and want to enter the technical fields, and
- an adult vocational education program to serve those adults who need retraining or upgrading of their present skills.

None of the four States, however, were able to achieve what they believed to be the ideal system. The States have concentrated on the last three phases listed above--secondary, post-secondary, and adult--with the greatest amount of effort expended at the secondary level.

The HEW Commissioner of Education has been actively supporting an educational approach, called career education, which is quite similar to the system envisioned by the four States. Career education models are being developed at six locations around the country with HEW assistance (financial and technical), but this development is not scheduled for completion until December 1973.

POTENTIAL EFFECT ON MANPOWER TRAINING PROGRAMS

An important factor to consider is the impact that vocational education programs have on an area's manpower training programs. Youths who are not exposed to a good vocational education program in secondary school, either because it is not available or because it is rejected due to an image problem, would seem to be likely candidates--after they realize that they do not have salable skills in the job market--for manpower training programs. Over 300,000 young people, aged 21 or younger, entered federally funded manpower training programs during fiscal year 1971.

Such programs may or may not be as effective as vocational education courses in teaching job skills in a regular school environment--we know of no studies comparing the two--but these programs are a more expensive way to train people for jobs because stipends are paid to enrollees and a range of supportive services is generally provided. Finding ways to equip young people--particularly high school students--with salable skills would seem to offer prospects for reducing future needs for manpower programs.

CONCLUSIONS

Not all persons who need vocational education are receiving it.

The vocational educators see the primary problems as insufficient funding and a bad image caused by an over-emphasis on academic (4-year college preparatory) curriculums. We believe that these factors may be interrelated and self-perpetuating; an aversion to vocational education results in an unwillingness to provide funds and the lack of funds results in poor or insufficient programs and/or

the inability to promote a more favorable image. Yet there has been little or no research or systematic information gathering on the exact nature and extent of the image problem and its relationship, if any, to the availability of funds for vocational education. The wide variation in vocational education's image from location to location and school to school indicates that such image problems, as may have existed, have been overcome in some instances.

We think that research is needed in this area so that a better understanding can be had of why all those persons who would benefit from vocational education either do not receive it or do not want it. This research could be undertaken by the recently authorized National Institute of Education or could be undertaken jointly by the Federal and State governments. In any event, a strong Federal leadership role would appear to be necessary so that the results of the research can be adequately disseminated throughout the country.

The questions studied during this research should relate to:

1. The extent that aversions to vocational education are caused by a widespread view that only a college degree can lead to a successful career.
2. The reason for the apparent absence of an aversion to vocational education in some schools.
3. Whether aversions to vocational education programs are caused by the reputed poor quality of some programs and, if so, whether that reputation is warranted.
4. Whether statistics and other information on the careers of vocational graduates would impress those persons who have an aversion to vocational education.
5. The relationship of present levels of funding to vocational education's image problem where it exists, and the probable impact of additional funding on that problem.

6. The probable impact of a career education program on the attitudes of those concerned.

The importance of understanding more about why vocational education programs are successful in some locations and not in others is that this type of training appears to be the key to the job opportunities opening up in this decade. According to the Department of Labor, eight out of 10 jobs to be filled during the 1970s will be open to people who have not completed 4 years of college, therefore, a vocationally oriented education would seem to provide greater opportunity for obtaining these jobs.

RECOMMENDATION TO THE SECRETARY
OF HEALTH, EDUCATION, AND WELFARE

We recommend that the Secretary of HEW undertake research into the exact nature and extent of the funding and image problems attached to vocational education, with a view toward determining what actions may be necessary to more fully achieve the objectives of the Vocational Education Act.

AGENCY COMMENTS AND ACTIONS

The Assistant Secretary, Comptroller, agreed with our recommendation, stating that:

"The Office of Education, through its central and regional offices, will undertake research into what appears to be primarily an attitudinal matter. In addition, a research study of a positive and definitive type will be mounted as soon as practicable to produce a report on vocational education graduates who have been employed for five or more years."

Although officials of the four States also agreed with our findings and recommendations, they--supported to some degree by HEW--believed that more balance could have been achieved in our report by adding the positive accomplishments made in vocational education. The following comments made by an Ohio official illustrate the types of positive comments he believed were needed in the report.

"In Ohio during fiscal year 1971 we served over 423,000 youth and adults through vocational education. At the national level preliminary figures indicate the approved vocational programs served over 10 million people in the nation. We realize that the number of people served is inadequate, but can you tell me of any other work training program in this nation which has anywhere near the contribution to the nation as the vocational education program? Can you identify any other Federal investment which generates State and local expenditures of \$5 to \$6 for every Federal dollar expended?"

"While the achievements of vocational education are massive, they are still limited in terms of the quantity of services needed. The funding, however, has been totally inadequate, both in terms of authorization within the Federal legislation and appropriations under the act. A quantification of the goals established and an assignment of dollar values to such goals

indicates that an appropriation of approximately \$4.5 billion would be needed in order to implement the Federal share of the goals. The report includes no bench marks from the past, nor projection of needs for the future and no comparison with other Federal investments, such as the fact that at the Federal level they are investing approximately \$14 in higher education for every dollar in vocational education."

Some of these matters were beyond the scope of our review. Because of this and the incomplete and inaccurate management information discussed in chapter 4, we could not arrive at unqualified conclusions on program accomplishments.

CHAPTER 3

FUNDS TARGETED FOR THE

DISADVANTAGED MISS THE MARK

Some Federal funds which should have been used for special programs or services for persons unable to succeed in vocational education without such services were used instead for regular vocational education programs. This happened in the four States because most State and local officials did not properly understand HEW's use of the term "disadvantaged." As a result, the funds were not available for persons needing the special programs or services.

The fact that many State and local school officials misunderstood the requirements of the Vocational Education Act and of HEW's implementing guidelines regarding the use of funds for the disadvantaged indicated that more definitive guidance by HEW is necessary. Also, if HEW and the States had more closely monitored implementation of the requirements, misunderstandings would have been apparent much sooner and attempts could have been made to correct the situation.

The 1968 amendments to the Vocational Education Act require that not less than 15 percent of the basic grants to States and all of the funds appropriated specifically for this purpose be used:

"*** for persons *** who have academic, socio-economic, or other handicaps that prevent them from succeeding in the regular vocational education program." (Underscoring supplied.)

HEW calls such persons disadvantaged. The definition of "disadvantaged" for vocational education differs from the more common definitions used by HEW and the Department of Labor for other programs which define "disadvantaged" primarily on the basis of family income. For vocational education, HEW defines "disadvantaged" on the basis of a person's inability to succeed in the regular program without special assistance, such as might be provided by individual

tutors, consultants, psychologists, instructional aides, diagnostic testing, modified or special programs, remedial education, and extension of the school day.

HEW does not consider all persons from low-income families to be necessarily disadvantaged, because many students from such backgrounds can and do succeed in regular programs. Some State and local officials did not understand this requirement and apparently were confused by the different definitions of "disadvantaged" used for different programs. As a result, vocational education funds targeted for persons unable to succeed in regular programs without special assistance did not serve the purpose for which they were intended.

Of the \$79.2 million in Federal funds made available to the four States for fiscal year 1970, \$13.8 million, or 17 percent, was allotted to special programs for disadvantaged persons.

HEW sponsored meetings of school administrators and vocational educators in March and April 1969 to provide these officials with guidelines for defining "disadvantaged" persons and programs; these guidelines were published in booklet form in October 1969. In February 1970, HEW issued another instruction, entitled "Suggested Utilization of Resources and Guide for Expenditures," providing further guidance. In May 1970, mandatory regulations were published in the Federal Register.

In essence, the HEW guidelines repeated the requirement of the act that the funds for disadvantaged students were to help persons unable to succeed in regular vocational programs and were to be used only to pay the costs of providing special programs, modifying existing programs, or furnishing supplementary special services.

The State plans, approved by HEW for the four States, repeated the requirements of the law and HEW's instructions with little or no elaboration. The plans did not indicate what procedures would be used to insure that funds for the disadvantaged were properly used. If HEW had required the States to describe these procedures in their State plans and if the procedures were effectively followed, more of the

funds might have been used to provide special programs or services to the disadvantaged. The descriptions could include the types of information local school districts would be required to provide to the States and the type and frequency of the States' monitoring of local districts.

CALIFORNIA

Of \$4.9 million in Federal funds received for disadvantaged students in fiscal year 1970, California allocated \$3.6 million to local school districts with the instruction--consistent with HEW's guidelines--that the funds be used for programs and services for persons who could not succeed in regular vocational programs without special assistance. The balance, \$1.3 million, was allocated on the basis of written proposals from school districts, stating that funds were needed for specific programs for persons who could not succeed in the regular program.

To evaluate the State's administration of funds for the disadvantaged, we concentrated on the \$3.6 million general allocation. In visiting several school districts, we found that local officials did not seem to be familiar with HEW's definition of "disadvantaged" persons and programs and did not follow the State's instructions to seek out those persons who could not succeed in the regular vocational program. In most instances, the programs funded under the general allocation were attended by regular students and did not provide special assistance for the disadvantaged. For example:

--One school district in California claimed a total expenditure of \$46,000 for the disadvantaged in 14 trade and industrial courses. We reviewed four of these 14 courses which district officials said had used funds for the disadvantaged. Instructors for the four courses told us that requirements for enrollment in the courses would, if anything, probably prevent disadvantaged students from enrolling and that no special services for the disadvantaged were provided.

We reported our findings to the California State Director of Vocational Education, who told us that education programs for the disadvantaged lacked effective State and

Federal direction. He said further that a review would be made in each school district in California to insure that all programs were in compliance with Federal criteria.

MICHIGAN

Although Michigan's written procedures for allocating funds for special programs for the disadvantaged also recognize the intent of the act and HEW's guidelines to identify and help persons who cannot succeed in the regular program, these procedures were not followed. In fiscal year 1970, Michigan made a general allocation of \$860,000, or 35 percent of its \$2.47 million in Federal funds intended for the disadvantaged, to local school districts to purchase equipment for their regular vocational education programs. The school districts were not told that the funds were to be used for the disadvantaged. State officials said that, although the equipment was for regular vocational programs, some disadvantaged students may have had the opportunity to use it.

The remaining 65 percent--\$1.61 million--was allocated on the basis of written proposals from local school districts requesting funds for special programs. Although the State required the proposals to contain information on the objectives and goals of the programs and criteria for student selection, many proposals were approved that did not contain this information. In visits to local school districts, we found that some programs approved for the disadvantaged were open to all students and were not designed to serve persons unable to succeed in the regular vocational program. For example:

--For one school district, the State approved a "Business Education Exemplary Curriculum" project for \$63,550. Students were eligible who attended one of two inner-city high schools in areas with poor socioeconomic populations and who had taken no previous high school business education courses. The local school officials responsible for the program said that no attempts were made to identify students who were disadvantaged. Rather, all students who had signed up for the traditional business courses were admitted into the new course.

State officials--explaining why they had made a general allocation of funds, intended for the disadvantaged, to purchase equipment for regular vocational programs--said that the requests for equipment funds exceeded the amounts available for this purpose; therefore, funds for special programs had been used to partially meet this need. They explained further that these funds were distributed to school districts on the presumption that some people below poverty levels lived in the area and would use the equipment. In our opinion, these comments by State officials indicate a misunderstanding of the intent of the act and a lack of understanding of HEW's implementing guidelines.

State officials told us that, because of a lack of staff to adequately monitor local programs, they had not been aware of the violations but that in the future they would increase their monitoring activity.

OHIO

Ohio's procedures governing the use of vocational education funds for disadvantaged students recognize the intent of the act and HEW's guidelines to identify and help persons who cannot succeed in the regular program. However, the procedures were not always followed.

Fiscal year 1970 Federal funds for the disadvantaged--\$2 67 million--were allocated to local school districts on the basis of written proposals. In our visits to selected local school districts, we found that the programs in operation were not the same as those described in the approved proposals. Persons participating in the programs were not necessarily disadvantaged, and often the programs were part of the regular vocational program. Further, local officials appeared to have misunderstood HEW's guidelines regarding the use of funds for disadvantaged persons. For example:

--On May 4, 1970, the State approved \$42,800 for equipment for an "Office Duplicating and Communication Specialist" course. The school officials acknowledged to us that the majority of students enrolled in the course could not qualify as disadvantaged. They stated that, at the time of approval, they were not aware that the funds could be used only for specific persons who were unable to succeed in the regular programs and who required special assistance.

In discussing our findings, State officials told us that they understood the definition of "disadvantaged" as intended by the act but that they had not been aware that local districts did not have an adequate understanding of the purpose of the special funds. They said State monitoring had not disclosed this situation, because the State was slow in building up its monitoring staff. They said that an increased staff (recently expanded from one to three) and a new requirement (local school districts must submit information on each student served indicating the nature of the disadvantage which made the student eligible) should prevent this situation from happening in the future.

PENNSYLVANIA

Pennsylvania allocated \$3 69 million of its Federal vocational education funds in fiscal year 1970 for programs for disadvantaged students. Of this amount, \$1 83 million was allocated to local school districts on the basis of a formula which took into consideration the total number of children in each district and the number of those from families on public assistance, in foster homes, and in institutions for the neglected or delinquent; \$940,000 was allocated to the schools in the two largest cities in the State; and the remaining \$920,000 was allocated on the basis of written requests from school districts for specific programs.

Pennsylvania's definition of "disadvantaged," consistent with the act and HEW's guidelines, includes persons who have academic, socioeconomic, cultural, or other handicaps. However, State officials have placed limited emphasis on the fact that, to be considered disadvantaged, such persons must be unable to succeed in regular vocational courses.

In specific programs conducted by selected local school districts, we found that this lack of emphasis resulted in the programs' being open to all persons and that only limited attempts were made to identify persons requiring special assistance. For example:

--A large city school district received \$884,899 for a vocational project. Part of this amount (\$607,920) was designated as chargeable to the disadvantaged allocation, on the basis of the school district's estimate that 69 percent of the students in the project were disadvantaged. However, no attempts were made in the city high schools to identify specific students who could not succeed in the regular program.

State officials acknowledged that general allocations to schools with a large percentage of low-income or academically deficient students did not meet the intent of the act, and they attributed the improper allocations that occurred early in the program to an inexperienced staff. The officials pointed out, however, that the State had instituted

improved controls--certifications by local school officials that programs funded by the general allocations contain disadvantaged students; evaluation reports showing numbers of students, achievements, and objectives met; and field visits by State personnel--to insure that funds for the disadvantaged reach those in need. State officials also told us that State personnel making field visits would seek to insure a better understanding of the objectives of the act

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HEW officials in the three regional offices responsible for the four States included in our review said that insufficient staff had prevented them from adequately monitoring the States' use of funds for the disadvantaged. They also said that they would place increased emphasis on the proper use of funds for the disadvantaged.

On July 19, 1971, we met with HEW headquarters officials to discuss our findings. They agreed that we had identified problems which demonstrated a lack of clear understanding of the requirements of the act and HEW's implementing guidelines.

On July 26, HEW issued a memorandum to the States re-clarifying the intent of the act, stating in part that:

"The basic criterion for identification of a person for participation in a vocational education disadvantaged *** program is inability to succeed in the regular program without special assistance or services. *** Determination of 'inability to succeed in vocational education' is not a simple matter and may well vary by instructional program and by State. Many criteria such as test scores, academic performance, or drop out, are indicators which may be used "

* * * * *

"In any case, the expenditures reported must relate specifically to individuals served and may not be a blanket application to an unidentified group or a pro rata share of a particular

program cost. *** States should immediately disseminate to local educational agencies the criteria used and other information necessary to develop uniform understanding of disadvantaged *** programs

"This office is planning additional regional conferences to discuss and further clarify the procedures relating to disadvantaged *** programs Also available in the next few months will be a publication, *** which presents various classifications and descriptions of categories of disadvantaged *** "

A revised version of the "Suggested Utilization of Resources and Guide to Expenditures" was published in July 1972 It provided extensive guidance on the proper use of Federal funds for the disadvantaged This guidance, together with HEW's memorandum and the planned regional conferences, should provide the clarification needed. However, adequate program monitoring by HEW and the States is needed to insure implementation of the improved procedures

RECOMMENDATIONS TO THE SECRETARY OF HEALTH, EDUCATION, AND WELFARE

The Secretary of HEW should instruct its regional offices to more closely monitor the use of Federal funds for special programs and services for the disadvantaged to insure that these funds are being used as intended by the act and HEW's implementing guidelines HEW should also require the States to describe, in their State plans, the procedures they intend to employ to insure that funds for the disadvantaged are properly used

AGENCY COMMENTS AND ACTIONS

The Assistant Secretary, Comptroller, agreed with our recommendations, stating that

"One of the States studied has established stricter controls for local education agencies for use of disadvantaged funds. Regional staff are emphasizing to the other States the concerns reflected in the GAO study and are expanding monitoring activities."

Officials of the four States involved also agreed, although officials from one State complained that "no mention is made of programs that were in compliance with the technical definition of disadvantaged " We observed some programs that we believed met the intent of the act But, as indicated above, the majority of programs reviewed did not meet this intent

The actions promised or taken by HEW and the States should result in needed program improvements

CHAPTER 4

MANAGEMENT INFORMATION INCOMPLETE AND INACCURATE

One of the major purposes of a management information system is to develop data on program operations and results that can be used to assess program effectiveness. The information on vocational education which the States are required to report to HEW is not adequate to evaluate program results. In addition, information submitted by the four States to meet HEW's requirements was often inaccurate or incomplete.

Because of dissatisfaction with the information required by HEW, two of the States and a county in a third State have started to develop their own systems so they will be better able to evaluate the results of their programs.

The act (82 Stat. 1095) requires that the Commissioner of Education:

"*** shall collect data and information on programs qualifying for assistance *** for the purpose of obtaining objective measurements of the effectiveness achieved in carrying out the purposes of such programs."

In addition, HEW's implementing instructions (45 CFR 102.4(j)) require that:

"Evaluation of the results of the program of instruction will be made periodically *** by the State *** and continuously on the local level with the results being used for necessary change or improvement in the program ***."

BETTER INFORMATION NEEDED ON PROGRAM RESULTS

The information concerning program results which HEW required the States to report consisted of summaries of the number of students graduating with major training in each of 10 types of employment fields and their employment status about 4 months after graduation. The reports show the

number of graduates (1) available for employment and, if unavailable, whether they are continuing their education, (2) unemployed, (3) employed in a job in, or related to, their vocational training field, and (4) whose employment status is unknown.

Comparable information has not been reported for non-vocational graduates; therefore, the comparative advantages of vocational education could not be adequately evaluated. Also, no information was reported on the graduates' status after the 4-month followup.

Officials in all four States criticized HEW's requirement for (1) followup data on all vocational graduates and (2) data only 4 months after graduation. Some said this time period was too soon after graduation to arrive at valid conclusions about the benefits of vocational education. Some said followup would be more meaningful if it were limited to a statistical sample of enrollees instead of including all enrollees as required by HEW. Such a sample would, they believe, permit more detailed data to be obtained on such items as type of job, initial and subsequent earnings, advancement, employees' job satisfaction, and employers' evaluations of the quality of the employees' vocational training. They suggested that data on the persons in the sample should be obtained periodically over a longer period after graduation--1 year, 5 years, or as long as 10 years after graduation.

Because of dissatisfaction with the HEW system, Ohio and Pennsylvania started implementing their own management information systems.

INACCURATE AND INCOMPLETE DATA

In three of the four States, we found that the enrollment data reported to HEW was inaccurate. (Ohio's computerized system provided accurate data.) Furthermore, in all four States the data reported on the status of vocational education graduates 4 months after graduation (e.g., employed, type of job, in college, etc.)--particularly in large cities--was often too incomplete to permit assessment of program results. All four States recognized the weaknesses and were taking steps to overcome them, e.g.,

Pennsylvania was also developing a computerized system for compiling the data.

The inaccuracies in enrollment data produced overstated enrollment and graduation figures which, in most cases, were caused by counting the enrollment in individual vocational classes rather than by counting the actual number of students enrolled. Those students taking more than one vocational course were counted more than once.

Incomplete followup data was caused by poor responses to questionnaires sent to vocational graduates. Although a 100-percent response is not usually expected or necessary, we noted response rates as low as 36 percent. According to a State official, a followup with this low rate of response is biased because only the better students respond.

A more intensive effort, consisting of additional mailings and personal contacts, would be necessary to bring the low response rates to a more acceptable level. Such efforts are expensive, but using a statistical sample could help to reduce this expense.

The Department of Labor's Manpower Administration has been experimenting with another technique for followup on graduates from its manpower programs. This technique involves the use of Social Security records for analyzing the graduates' earnings records. Although individuals' earnings records are highly confidential, analyses have been performed by the Social Security Administration for the Department and the overall results were provided to the Manpower Administration. The Department has determined that this system has considerable value in evaluating the results of programs designed to improve the employability and the earnings of the participants and is developing the system for general application to manpower programs.

We believe that HEW should consider the possibility of using statistical sampling, Social Security records, or a combination of the two in followup of graduates from vocational education.

SIMILAR FINDINGS BY EXPERT EVALUATORS
OF VOCATIONAL EDUCATION PROGRAMS

The Center for Vocational and Technical Education at Ohio State University has compiled and summarized the findings of numerous expert evaluators of vocational education. A consensus of these findings, prepared by the Center, showed that these evaluators have encountered problems with information on program results similar to those we found. One of the Center's 1970 publications commented:

"Follow-up studies continue to be plagued by some inherent hazards--reliance upon questionnaires and interviews and the attendant problems of accounting for non-respondents ***. Research workers agree that decisions are being made about occupational education and training programs without adequate information about their current or potential effectiveness. ***"

* * * * *

"*** Some school officers *** have neither research budgets nor skilled research workers for mounting *** evaluative efforts. As education's share of tax expenditures increase, however, it is fairly certain that educational administrators will be asked to provide better information than they now possess about the cost-effectiveness of their programs, vocational or non-vocational."

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HEW regional officials generally concurred with our findings and said that--particularly in the area of inaccurate data--they could have done a better monitoring job with additional staff.

The Program Officer for Reports and Statistical Data at HEW headquarters agreed that HEW and the States were having difficulty in obtaining the information necessary to adequately evaluate programs. He said that attempting to develop a management information system to adequately evaluate program effectiveness has been a slow process.

One of the problems has been convincing persons at all levels--Federal, State, and local--of the importance of such a system. He said that most educators--State and local--did not consider this information important and that they were more concerned with the techniques of teaching and curriculum development than with evaluating program effectiveness. He said that adequate systems would be implemented only when officials at all levels were convinced of the value of good management information and that efforts were continuing in this direction.

CONCLUSIONS

Improved management information systems which provide adequate and accurate information, particularly on program results, are needed if program managers are to adequately evaluate programs, identify weaknesses, and make necessary improvements. The need for such systems has been recognized by the States and HEW.

Of concern to us is that the independent development of management information systems by HEW and the various States--which seems to be the current trend--could easily result in duplication of effort without the valuable benefit gained from the comparability of data and the interchange of ideas. HEW officials should more closely coordinate their efforts with those of State and local governments in defining the information needed for an adequate management information system and should assist the States in establishing such systems.

HEW officials should also explore the possibility of using techniques, such as statistical sampling and analyses of Social Security data, to assess the effectiveness of vocational education. They should also consider (1) gathering followup information on nonvocational graduates to better assess the impact of vocational education and (2) compiling followup information over a longer period after graduation. Combining several or all of these techniques might result in better information, while holding costs to a reasonable level. Any system, however, will be of limited usefulness if the information gathered is inaccurate and incomplete.

RECOMMENDATIONS TO THE SECRETARY
OF HEALTH, EDUCATION, AND WELFARE

HEW should coordinate its efforts and those of the States in defining the information needed to adequately evaluate program results and should assist the States in the design and implementation of management information systems.

The Secretary should take action to insure that HEW and the States--in monitoring programs--verify the accuracy and completeness of reported information.

AGENCY COMMENTS AND ACTIONS

The Assistant Secretary, Comptroller, agreed with our recommendations, stating that:

"Regional staff through personal consultation with State personnel and by conducting leadership workshops for State and local administrators are taking positive steps to achieve the objectives included in the recommendations. Such action consists of conducting State program reviews and re-emphasizing proper accountability throughout the entire system to improve report information."

Officials of the four States involved also agreed.

The actions promised or taken by HEW and the States should result in needed program improvements.

CHAPTER 5

SCOPE OF REVIEW

We reviewed selected aspects of the vocational education programs in California, Michigan, Ohio, and Pennsylvania for fiscal years 1970 and 1971. These States have been consistently among the top 10 in amounts of Federal assistance received. They received \$104 million, or 22 percent of the total allotted to all States, in fiscal year 1972. Our review was directed toward determining whether legislative objectives were being achieved and toward identifying major problems.

Our review concentrated on high school vocational education, because the majority of funds in all four States are spent on this level of education. California spends also a significant portion of its vocational education funds on post-secondary vocational education in 2-year community colleges, and the other three States have also undertaken programs to increase vocational training in community colleges. We included community college vocational education programs in the preliminary phase of our review, but expenditures in all four States had not reached a sufficient level to warrant including these programs in our detailed review work.

We reviewed the Vocational Education Act of 1963 and its 1968 amendments, the legislative history of these acts, and the administrative regulations and instructions for their implementation.

We also reviewed the plans of the four States to determine if the objectives of the act were included. We interviewed Federal, State, and local education officials and reviewed available records and reports to determine if these objectives were understood and to obtain information on the progress of State programs, the extent of State and local funding, and the direction of effort.

Our work was performed primarily at State departments of education and at local education agencies in three

selected cities in each State--one large (over 500,000 population), one medium (100,000 to 400,000 population), and one small city (under 100,000 population). In each of the large cities, we visited three high schools, in the medium cities two high schools each, and in the small cities one high school each. Our work also included reviews and discussions at HEW headquarters and regional offices responsible for programs in the four States.

We considered recent findings and conclusions by expert evaluators of vocational education, as summarized by the Center for Vocational and Technical Education. The Center, an independent unit of Ohio State University, receives funds from HEW to be used, in part, for summarizing reports of vocational education studies by experts under contract with HEW, State and local governments, and other public and private groups. We also reviewed the annual reports prepared by or for the National Advisory Council and the four State advisory councils.

LEVELS OF STATE AND LOCAL
EXPENDITURES FOR VOCATIONAL EDUCATION
FISCAL YEARS 1963 AND 1970 AND STATE ESTIMATES FOR 1975

	<u>1963</u>	<u>1970</u>	<u>1975</u>	Increase <u>1963-75</u>
	----- (000 omitted) -----			
California	\$22,900	\$164,100	\$314,700	\$291,800
Michigan	7,000	38,500	70,600	63,600
Ohio	8,400	87,400	223,100	214,700
Pennsylvania	<u>9,200</u>	<u>98,700</u>	<u>123,400</u>	<u>114,200</u>
	<u>\$47,500</u>	<u>\$388,700</u>	<u>\$731,800</u>	<u>\$684,300</u>

APPENDIX II



DEPARTMENT OF HEALTH EDUCATION AND WELFARE
WASHINGTON D C 20201

OFFICE OF THE SECRETARY

JUN 23 1972

Mr Morton E Henig
Associate Director, Manpower
and Welfare Division
U S General Accounting Office
Washington, D C 20548

Dear Mr. Henig

The Secretary has asked that I reply to your letter dated April 25,
which forwarded your draft report entitled "Training America's Labor
Force The Unfilled Promise of Vocational Education."

Detailed comments on the recommendations, together with the statement
of actions to be taken to implement them, are set forth in the enclosure.
They are the product of a review of the report by the cognizant
Departmental and Office of Education regional and headquarters staff.

We appreciate the opportunity to review and comment on the report.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "JBC".

James B. Cardwell
Assistant Secretary, Comptroller

Enclosure

Department of Health, Education and Welfare Comments Pertinent
to the Draft Report to the Congress of the United States by the
United States General Accounting Office entitled "Training America's
Labor Force The Unfilled Promise of Vocational Education"

A general reaction is that this is a fair and impartial report. However, the tone and accuracy of the report could be improved by changing the title of the report. The present title implies a total study of vocational education in contrast to the actual scope of the study which relates primarily to the disadvantaged. Replacing the word "Promise" with "Goal" would be much more acceptable. Also, Regional Adult, Vocational and Technical Education Director should be substituted for HEW Director (page 10). In addition, the nature of the report militates against the inclusion of positive achievements. Better balance could be achieved in the report if some positive accomplishments in vocational education during the period covered were included. For example, the report might identify the expansion of programs with reference to the number of participants as well as occupations.

GAO recommended that

The Secretary of HEW should undertake research into the exact nature and extent of the funding and image problems attached to vocational education with a view toward determining what actions may be necessary to more fully achieve the objectives of the Vocational Education Act.

Department Comment

We concur with the recommendation.

The Office of Education, through its central and regional offices, will undertake research into what appears to be primarily an attitudinal matter. In addition, a research study of a positive and definite type will be mounted as soon as practicable to produce a report on vocational education graduates who have been employed for five or more years.

The Secretary of HEW should instruct regional offices to more closely monitor the use of Federal funds for special programs and services for the disadvantaged to insure that these funds are being used as intended by the Act and HEW implementing guidelines. HEW should also require the States to describe, in their State plans, the procedures they intend to employ to ensure that funds for the disadvantaged are properly used.

Department Comment

We concur with the recommendation.

APPENDIX II

One of the States studied has established stricter controls for LEA's for use of disadvantaged funds. Regional staff are emphasizing to the other States the concerns reflected in the GAO study and are expanding monitoring activities.

HEW should coordinate its efforts and those of the States in defining the information needed to adequately evaluate program results and assist the States in the design and implementation of management information systems.

The Secretary should take action to ensure that HEW and the States -- in monitoring programs -- verify the accuracy and completeness of reported information.

Department Comment

We concur with the recommendation.

Regional staff through personal consultation with State personnel and by conducting leadership workshops for State and local administrators are taking positive steps to achieve the objectives included in the recommendation. Such action consists of conducting State program reviews and reemphasizing proper accountability throughout the entire system to improve report information.

PRINCIPAL OFFICIALS OF THE
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
RESPONSIBLE FOR THE ADMINISTRATION OF ACTIVITIES
DISCUSSED IN THIS REPORT

	<u>Tenure of office</u>	
	<u>From</u>	<u>To</u>
SECRETARY OF HEALTH, EDUCATION, AND WELFARE:		
Elliot L. Richardson	June 1970	Present
Robert H. Finch	Jan. 1969	June 1970
ASSISTANT SECRETARY (EDUCATION) (note a):		
James E. Allen, Jr.	May 1969	June 1970
Peter P. Muirhead (acting)	Jan. 1969	May 1969
COMMISSIONER OF EDUCATION:		
Sidney P. Marland, Jr.	Dec. 1970	Present
Terrel H. Bell (acting)	June 1970	Dec. 1970
James E. Allen, Jr.	May 1969	June 1970
Peter P. Muirhead (acting)	Jan. 1969	May 1969

^aOn March 31, 1971, an Assistant Secretary for Public Affairs was appointed to the position formerly held by the Assistant Secretary for Education.

Copies of this report are available from the
U S General Accounting Office, Room 6417
441 G Street, N W , Washington, D C , 20548

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