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ABSTRACT

The fourth annual report of the Oklahoma Advisory Council for Vocational-Technical Education presents detailed evaluative comments on programs carried out under the Oklahoma State Plan for Vocational Education for the academic year 1971-72. Following last year's recommendations, health occupations programs continued to have first priority. A system of statewide evaluation of vocational programs was being established, predicated on evaluating 20 percent of the programs each year. A successful pilot program was operated in one area of the State to provide career guidance information to students and adults by counselors operating out of mobile units. The report includes a survey of area vocational-technical schools, a follow-up study of 1970 graduates of Tulsa high schools, various statistical data, and detailed conclusions and recommendations for improvements in the programs.

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# annual report

State of Oklahoma Office of the Governor



## OKLAHOMA ADVISORY COUNCIL VOCATIONAL-TECHNICAL EDUCATION

NOVEMBER 1, 1972

4901 Lincoln Blvd. Oklahoma City 73105

UT 020 013

# FOURTH ANNUAL REPORT

## Oklahoma Advisory Council Vocational-Technical Education

Letter of Transmittal	2
Letter from State Board	4
GOAL I State Goals, Objectives and Priorities	5
GOAL II Serving People's Needs	6
GOAL III A. Follow on 1971 Recommendations	7
B. Action on 1970 Recommendations	10
Concerns and Conclusions	11
Recommendations	16
Commendations	17
Area School Survey	18
State Advisory Council	22
Appendix	
A. Local Advisory Committees	24
B. Vocational Enrolment	25
C. Tulsa Follow-up Study	26
D. On-Site Evaluation	27
E. Statistics	28



OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

August 14, 1972

Dr. Sidney P. Marland, Jr.  
United States Commissioner of Education  
400 Maryland Avenue, S. W.  
Washington, D.C. 20202

Dear Dr. Marland:

This letter is to advise you that the members of the State Board of Vocational and Technical Education have received and have had the opportunity to study the Advisory Council's Report.

The State Board of Vocational and Technical Education has authorized me to inform you that they place a high value on the recommendations of the Advisory Council and are continuing to make a real effort to follow the recommendations. It is the belief of this board that they have exerted major efforts that have either met or have progressed toward meeting the recommendations made in last year's annual report of the Advisory Council. For example, this board has continued to keep health occupations as the number one priority for the establishment of programs. They have also made a major effort in establishing a system of statewide evaluation of the vocational programs. This system is predicated on evaluating 20% of the programs each year. These programs are evaluated by a team visit composed of various people both local and statewide, and after the visit is over, an evaluation report is made back to the local school system. The purpose of the evaluation is for improvement in the quality of existing programs. We believe that we can already see a definite improvement in the efforts of local educational agencies in improving their programs according to the evaluation reports.

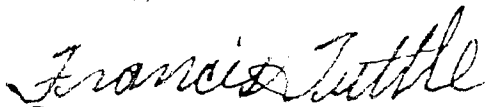
In the area of guidance and counseling, the State Department has established a pilot program in the southeast part of the State which provides counselors operating out of mobile units that serve nine counties. The three mobile units travel to each of the schools in this area bringing career guidance information to students and adults, and we believe this program has been most successful. In regard to the Council's recommendations for proficiency rating, the department is continuing to work with a national study in this area. We admit that we have perhaps not moved as quickly as we could have in this area; however, we expect some definite recommendations to come from the national study in the next few months, and it is our hope that we will then be able to move more quickly.

The recommendations are too numerous to discuss individually in this letter; however, this department and our board have been made aware of the recommendations and have made efforts to improve the situation according to the recommendations in each of the areas.

Dr. Sidney P. Marland, Jr.  
Page 2  
August 14, 1972

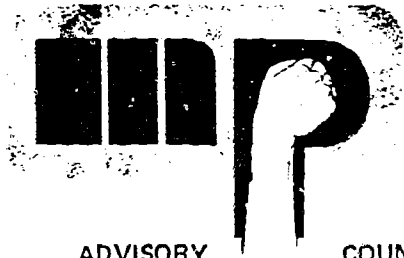
We continue to believe that the recommendations made by the Council have improved the quality of vocational education in Oklahoma.

Sincerely,

A handwritten signature in cursive script that reads "Francis Tuttle".

Francis Tuttle, State Director  
Vocational and Technical Education

EW/XCY-01/9



ADVISORY COUNCIL  
VOCATIONAL-TECHNICAL EDUCATION

State of Oklahoma  
Office of the Governor



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November 1, 1972

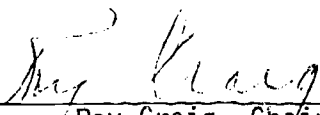
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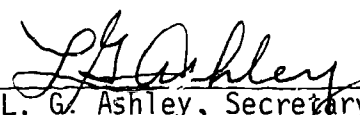
Through: State Board for Vocational  
and Technical Education  
State Capitol  
Oklahoma City, Oklahoma 73105

In requirement of Regulation 102.59 and pursuant to item 102.23 (c) of the Office of Education Rules and Regulations, and in compliance with Public Law 90-576, the Annual Report of the Oklahoma Advisory Council for Vocational-Technical Education of 1972 is attached.

In preparation of this narrative report its dual purpose has been observed: to provide an evaluative report on effectiveness of programs, services and activities carried out under the Oklahoma State Plan for Vocational Education for the academic year 1971-72; to publicize such a report.

This report will be circulated to news media and through it to the general public, to school officials, to the state legislature and congressional delegation, and to laymen.

  
\_\_\_\_\_  
Roy Craig, Chairman

  
\_\_\_\_\_  
L. G. Ashley, Secretary

## GOAL I: State Goals, Objectives and Priorities

A. The goals, objectives and priorities were valid in terms of student needs and employment opportunities, as reflected by the Occupational Training Information System (OTIS), within available fund limits.

B. They were comprehensive in terms of specific population groups. (See Appendix B).

C. They coordinate well with other Manpower training programs through general and post-secondary programs, three skill centers and a residential skill center, and in providing special training programs this fiscal year for industry, completed or underway as of April 18, for 2,079 persons in 84 separate industries.

D. Procedures to accomplish the stated objectives, and defined priorities, were not as detailed in the 1971-72 plan as in the 1972-73 plan, but were adequate as guidelines.

E. The state's objectives toward reaching its goals of expanded and improved vocational education; to serve more persons at the post-secondary level; to serve more persons classed as disadvantaged or handicapped; to interest more persons termed dropouts from both secondary and post-secondary levels in taking occupational training, in almost all categories exceeded preset targets.

1. The number of schools offering vocational education, all types, increased from 438 to 477. The enrollment increased from 103,604 to 106,341, or by 2,737. The significant increases were in post-secondary programs and adult evening classes, which are classified separately.

2. The objective of enrolling 34 percent of secondary students in vocational education was exceeded by 0.3 percent. The significant changes were that the objective of enrolling urban students was almost doubled to 57.16 percent, while the rural potential decreased to 42.84 percent of the eligibles, where production agriculture and useful home economics reflect altered times.

3. The percentage of secondary vocational students entering post-secondary programs

was 24.22, an increase of .17 percent over the objective.

4. The anticipated increase in total number of secondary programs by O. E. code was slightly under objectives except for T&I, which was expanded by 17 programs to 365.

5. A desirable dividend is reflected in that of 13,315 course completions, 5,383 or 40.43 percent were available for employment immediately. Of this number, 3,692 or 68.59 percent were placed in jobs related to training; 1,325 or 24.6 percent were employed in jobs unrelated to training or part time. Only 366 graduates were unemployed, or 6.8 percent of those available for work, in contrast to an 18 percent unemployment rate for comparable age high school graduates who did not have vocational training.

6. Objectives were exceeded in the percentage of disadvantaged population, by level, enrolled. The result was 33.8 percent for secondary, 26.7 percent post-secondary, and 33 percent adult. The number of instructional programs offered this segment of population rose to 2,733 regular and 42 special programs. Below the target figures were 2,301 disadvantaged students enrolled in cooperative programs and 450 enrolled in work-study programs. In both cases the principal deterrent was funding, with attitude of business firms a secondary factor, although the mandatory percentage set aside for aiding the disadvantaged (15 percent of categorical funds) was exceeded.

7. The third mandatory allocation (10 percent) directed was for training the handicapped. Here again the funding percentage was exceeded. With exception of the number of handicapped students enrolled in cooperative programs (307) and work-study (12), all objectives were exceeded. By level, the percentage of the handicapped population enrolled in vocational education was: secondary, 33.8; post-secondary, 26.7 and adult, 0.4. (No change on the latter.)

## GOAL II: Serving People's Needs

A. For planning purposes, far more adequate and valid data is available than two years ago, for example, through the Occupational Training Information System (OTIS). Here demand data from employers is matched by supply information from public schools at all levels, from private schools — a recent feature predicated by passage of 1970 legislation requiring private school registration — and through excellent cooperation from the State Employment Service. OTIS is both an informational and forecasting system. Certainly it is superior to past conditions involving those two factors and has itself greatly improved the past two years as developed. There are some weaknesses in the system of which the OTIS staff are well aware and seek to remedy. Such as not having all jobs included in projections; identifying regional and state differences; credibility of skill claims by employment service registrants; adequate representation in demand figures for government and services with those of the industrial sector; the more difficult to obtain but valuable indices for on-the-job training toward higher skill levels, thus creating bottom level jobs through upward mobility.

B. There is coordination of training opportunities among agencies to an unusual degree. Growing out of experience dating from the original post-War II Manpower Development and Training Act (MDTA), the State Department of Vo-Tech has a dominant, but cooperative training role, from post-secondary through special industrial schools to two pre-release centers of the Department of Corrections.

C. Coordination among various levels of education is a natural sequence and at a high level of performance.

D. Educational institutions have increased their efforts at job placement and show steadily rising ratio of results. Counselors and instructors are developing more consciousness of responsibility in that activity,

while area schools' industrial coordinators work at placement as a major function.

E. With 1,440 regular programs offered statewide, 13 presently operating area schools, 52 programs at OSU Tech, Okmulgee, and 10 at OSU Technical Institute, Oklahoma City, and a state network of community and junior colleges, vocational education is available to more than 90 percent of the state population, although at the secondary level the major school counselor emphasis remains directed at the college bound. Post-secondary and adult evening class enrollments have increased. (For a study on how area schools relate to 49 of the state's 77 counties termed depressed by federal economic definition, see Appendix B.)

G. It is difficult to assess students' feelings on the value to them of vocational programs. Individual comment may not be objective and only spur of the moment responsive. The best indicator is that 94.8 percent of students available for work are placed. As pointed out by the State Department staff, a better determination is progress on the job. To that end, additional probing is being done on the student follow-up of last year through the OTIS system (Supplement V) in which the Council participated. A follow to a study of graduates of the nine high school Tulsa system, directed by Dr. Paul I. McCloud, also is being made for 1970 graduates. The first study involved principal activity of students following graduation. (See Appendix C.)

F. Oklahoma has a mini-model for career education in the Sand Springs system. The extent to which career education is provided to all elementary and middle school pupils, on a statewide basis, is negligible. Not only is the revised and revamped concept "new" to patrons, it has not had any general impetus toward implementation. "World of Work" programs in the state's two largest systems, Oklahoma City and Tulsa, are a beginning in orientation. Funding does not presently satisfy demand for secondary and post-secondary programs, leaving little for career exploration.



## GOAL III: Recommendations and State Board Reaction

(Where used, State Department refers to the State Department of Vocational and Technical Education.)

### A. 1971 Recommendations and Reaction

**1 — Proficiency Ratings:** That standard tests be given all vocational and technical occupational course graduates, which would rate proficiency level of individuals in a particular skill in key areas of specialization, and place this information on a plastic, wallet-size card with Social Security number to prevent any unauthorized reproduction. The rating system, devised in consultation with advisory committees drawn from the proper occupations, trades, and organized labor, should equate an individual's skill level with his peers in secondary, post-secondary, adult, MDTA, or special training.

**Reaction to No. 1:** We believe strongly in proficiency testing of graduates, specifically in trade and industrial education areas. We believe that instructors in the field of cosmetology, aero mechanics, practical nursing, and associate degree nursing have done an outstanding job, possibly because their students must pass examinations in order to be licensed or certified in their field. In each of those examples, course objectives are clearly defined and curriculum materials revised constantly to enable students to obtain the most recent developments.

Over a period of time, proficiency testing might be introduced into all occupational areas. This would require that all programs of like kind be equipped with appropriate instructional devices, training aids, basic equipment, and curriculum materials. We do feel, though, that a word of caution should be expressed. Our instructors should not teach for the proficiency examination only and, therefore, fail to cover some more broad aspects of the program. Such a proficiency testing program must be developed over a long period because it requires much planning and research.

In general, we support No. 1 to the extent that proficiency testing be explored and expanded. There are many variables. While it is possible to say on a proficiency card that a welding trainee has passed an AWS test and a typist can type 80 words per minute, as proven on an examination, we think it would be very difficult to give an accurate and meaningful total proficiency rating on a trainee. After all, test results indicate proficiency only at the time of testing.

**2 — Duplicate Mechanics Programs:** That the Board work with both sending districts for area schools, and local districts, to reduce duplication of auto mechanics programs through the reimbursement process. The

Council further recommends that the Board encourage a consolidation of equipment and/or funds for equipment, to provide better basic facilities and equipment for specialization in the cluster of automotive related services, to the end that more course graduates will be employable. In addition, the Council recommends training priority for those who are, at least initially, interested in part of the automotive cluster program as a career and not merely a hobby.

**Reaction to No. 2:** We admit readily that duplication is not basically sound. Whenever practical, we try to eliminate programs in the comprehensive schools when an area school goes in and offers a similar program. When a comprehensive school superintendent asks why he should not continue his program, but transport students to an area school for training when there is a full enrollment at his school, we have difficulty providing a good answer. Where the enrollment is low, we do not hesitate to recommend that a program be closed.

We also make recommendation, for closing the program when facilities are poor and teachers appear to be weak. The current evaluation program will assist us in eliminating such programs. Several programs have closed since the area vocational-technical schools came into being. Not all programs in comprehensive high schools within area districts have closed. We do not feel that all should close, because many area vo-tech school administrators have the attitude that their schools and programs are for those schools that cannot afford similar programs of their own, or where the comprehensive school superintendents feel that the new vo-tech schools can do a better job of training students.

We do feel that in certain area schools, or certain large city schools, it might be desirable to cluster the training of automotive mechanics and, therefore, allow a greater level of specialization. Specialization at the high school level is not always practical because of uncertainty over the final goal of young people involved, and the fact that they may not be completely committed to becoming an auto mechanic.

The Advisory Council and the Board are aware of the comprehensive specialization program in automotive mechanics available at Oklahoma State Tech, Okmulgee. We feel also that a recommendation of the director

of the Oklahoma City Vo-Tech Education programs, for consolidating all auto mechanics programs in the district into one location, might be feasible. We would want additional study before making a recommendation on this proposal.

We are doing more each year to screen out the student who takes automotive mechanics training as a hobby. Both instructors of the programs and local school counselors are involved in the screening process and hope to screen in only those students who really intend to practice the vocation of automotive mechanics. We realize that this is not always possible and that the goals of people change regarding what career they want to follow.

**3 - Apprenticeship Credit:** That more intensive effort be made to secure agreements with organized labor to accept mutually agreeable levels of vocational occupational craft training, after proficiency tests, as a portion of apprenticeship requirements for craft unions.

**Reaction to No. 3:** We feel that obtaining a written agreement with organized labor is a very difficult assignment since all the principal trades are administered through local union offices. Local union administrators are very cautious about putting anything in writing because it could point up a deficiency in their apprenticeship recruitment program. To this date, the T&I Division of the State Department has had excellent results, with no fanfare, in placing the most apt students in trades and crafts.

From experience, we have found that local unions would much rather deal with vo-tech graduates on an individual basis than offer a blanket statement that would enable each to qualify. We would prefer that Roy Ayres, State Supervisor of Trade and Industrial Education, make a personal report to the Advisory Council on success achieved in getting T&I vo-tech graduates admitted with credit to apprenticeship training programs.

Many of the T&I graduates, some under 20 years of age, are now carrying bona fide union cards as journeymen. This speaks well for the training these young men have received from their high school courses.

**4 - Vocational Graduate Follow-up Study:** More effort should be made to increase the number of graduates of vo-tech training programs who enter the labor force.

a. Greater emphasis should be given to selection of students who are in the greatest need of training for employment: counseling of graduates should be toward employment, or further education, related to the vocational education program which they have just completed.

b. Greater emphasis should be placed on the establishment of placement procedures for graduates of vocational and technical programs. A more comprehensive follow-up on specific program types should be considered carefully when expanding or reducing programs in the future.

**Reaction to No. 4:** The follow-up study of vocational-technical education graduates, which was partially supported by the Advisory Council, and conducted by the Division of Research, Planning, and Evaluation of the State Department, yielded some recommendations which were directed at improvement of the effectiveness of training programs. The State Department, as a result of this study and recommendations made by the Advisory Council, included placement as one of the principal objectives for the coming fiscal year.

Overall objectives of the State Department which relate to follow-up and placement of students are stated as follows:

1. To increase the number of persons available for placement after completing training by five percent for each division except Health which, because of its already high placement rate, will increase the number of persons available for placement by one percent in FY 1973.

2. To provide 50 percent of the completing area vocational and technical school and junior college students, and 25 percent of the completing comprehensive high school students, with placement information and services in FY 1973.

These two objectives have been accepted as a part of the management by objectives system for the State Department, and will stimulate increased emphasis on placement, which is necessary to assure an increased placement on the job for each of the programs in vocational and technical education. Also, the State Department, in response to other recommendations of the Advisory Council, has recommended that emphasis be placed in the area of recruitment of college dropouts. This objective by the State Department is:

1. To identify and recruit ten percent of the college dropouts into post-secondary vocational and technical education programs in FY 1973.

While the percentage of high school graduates does reflect a high placement (70 percent) of those graduates available for employment, the greatest probability of increasing the number of persons trained and placed on jobs, is to increase the percentage available for work.

The strong training programs which are reflected by the low unemployment rate among vocational graduates (approximately

six percent) does demonstrate vividly that vocational and technical graduates and school leavers do obtain employment. This figure is especially significant when compared to the high percentage (18 percent) which is the unemployment situation for those students who have not received vocational and technical training.

**5 - Teacher Supply and Demand:** The Council wishes to convey its recommendations made pertinent to findings in a study just completed on secondary and post-secondary programs under direction of the Division of Research, Planning, and Evaluation, titled, "The Demand for and Supply of Vocational and Technical Teachers in Oklahoma, 1972-76" for the seven major program areas. Highlights follow:

**Recommendation for Vocational Agriculture:** That no teacher training at Oklahoma State University be maintained at its present rate and to the teacher training program at Oklahoma State University further redirect its efforts toward training teachers for off-farm agricultural programs.

**Reaction for Vocational Agriculture:** That agriculture redirect its efforts toward training in off-farm agricultural occupations is reflected in objectives of the State Department, which recommends a five percent redirection annually of programs in vocational agriculture, toward training in agricultural related occupations.

**Recommendation for Distributive Education:** That a new undergraduate program be established at Oklahoma State University in the next five years and that teacher training at Central State University be maintained.

**Reaction for Distributive Education:** While the supply of distributive education teachers is not adequate to meet demand, expanded training of teachers is being encouraged at Oklahoma State University; and consideration is being given to expansion of the program at Central State University.

**Recommendation for Health Occupations Education:** That the program at Central State University be expanded rapidly, or that one institution in addition to Central be assigned the responsibility for training health teachers immediately. Additionally, it is recommended that provisions be made to admit associate degree graduates in health programs into teacher training without significant loss of credit hours.

**Reaction for Health Occupations:** The most serious shortage shown in the report and in recommendations of the Council is in health occupations. A new program has been initiated at Central State for training health teachers. This is just getting into operation. The increase in number of teachers and expanded training of present teachers should

begin to show a significant effect soon. This is one of the top priority items of the personnel development effort of the State Department.

**Recommendation for Home Economics Education:** Include (a) increasing enrollment in teacher training programs at Oklahoma State University, Oklahoma University, Eastern University, and Oklahoma College of Liberal Arts, or increasing the percent of graduates entering teaching by approximately 15 percent, and (b) effecting a further shift in the emphasis of teacher training programs toward preparation of teachers for careful employment instruction.

**Reaction for Home Economics:** Programs of home economics teacher education, while providing only 70 percent of teachers needed in home economics, are maintaining levels of enrollment. It is felt that teachers reentering the occupation after a period of absence will help to supplement the supply.

**Recommendation for Business and Office Education:** That teacher training in business and office be maintained at the present rate.

**Reaction for Business and Office:** Our data indicates there is an over production of business and office education teachers. However, many of these graduates go into non-vocational teaching positions. It is the position of the State Department that the level of training be maintained.

**Recommendation for Technical Education:** That teacher training at Oklahoma State University be maintained at its present rate and that the feasibility of establishing new teacher training programs in an urban center such as Oklahoma City be determined.

**Reaction for Technical:** The technical education program at Oklahoma State University is being encouraged to expand its enrollment, and the possibility of using other institutions for training is being studied.

**Recommendation for Trade and Industrial Education:** (a) That at least one additional teacher training program be established for trade and industrial teachers, and (b) that any additional teacher training programs be established in conjunction with an area school or Oklahoma State Tech at Okmulgee.

**Reaction for Trade and Industrial:** While most teachers in trade and industrial education are coming directly from industry, special programs are being initiated to expedite and expand the training of such teachers. A special project funded through EPDA did provide for a summer workshop for individuals going into area vocational-technical schools who have never taught before. This is a four-week workshop. Professional teacher trainers are continuing to work with new T&I teachers who were in the workshop to

assist them in adjusting to a classroom situation.

The State Department is following closely the data supplied by the teacher demand and supply report, and which is reflected in recommendations of the Council. Further study and recommendations of the Professional Personnel Development Programs may more effectively meet the needs of vocational and technical education in the future.

#### **6 — Teacher Training in Adult Education:**

That a study be made on the need for teacher training in adult education, by the State Department, or in conjunction with the State Department of Education.

**Reaction to No. 6:** We agree with the Council recommendation that there is a need for a study. This is becoming increasingly important in view of recent emphasis on cradle to the grave career education as proposed by Commissioner Marland. Recent reports, less time, more options, the Newman report, new students and new places, also have indicated a need for continuing in adult education.

The State Vo-Tech Department and other agencies are engaged in several studies that may lead to recommendations for implementation regarding teachers' training for instructors of adults. These are: (1) a complete study of all phases of existing vocational and technical adult education, being conducted by Bill Collins, under the direction of Dr. Charles Hopkins and Harold Winburn; (2) Bob Brown, Miss Blanche Portwood, and Bill Phillips of the State Department staff are developing an 8-hour training program for new teachers of adult programs. They are also preparing an adult education guidebook, developed as a directory of the summer 1971 workshop on adult education; (3) the U. S. Office of Education has funded, through the University of Oklahoma, Norman, a preservice and in-service adult teacher education program; (4) Wayman Penner, presently an intern in the State Department, is doing a study of characteristics of teachers of adult education T&I programs. The study will have direct bearing on curriculum development for adult education teacher training.

With completion of these studies, more adequate information should be available upon which a proposed teacher education program for teachers of adults should be established.

**7 — Training of Guidance and Counseling Personnel:** That continued emphasis be placed upon training of guidance and counseling personnel with a top priority assigned to such endeavor.

**Reaction to No. 7:** If one had followed activities of the State Department over the last six months, increased emphasis placed on guidance and counseling by the department could have been seen easily. The VIEW project, headed by Les Miller, and the Mobile Guidance Career Development Labs, headed by Ross Stivers, are proof of emphasis that the Board and Department are placing on guidance and counseling. In the State Plan, Priorities 4 and 5, are concerned with improvement of guidance and counseling through preservice and in-service training of counselors, and in the development of new or improved techniques. It is anticipated that at least one EPDA funded project for the coming year will be designed to improve the training of guidance and counseling personnel.

The State Department is not satisfied with the reaction of counselor-educators to its recommendations that training of counselors and guidance personnel for the high schools be changed to reflect greater background in occupational areas, vocational and technical education, job opportunities, placement, etc. The Council is well aware of the way recommendations have been received, and they, too, have met with teacher-educators from the guidance and counseling training staff of the various colleges and universities within the state.

It may be necessary that more drastic steps be taken in order to get the attention of counselor-educators. The State Department is studying additional recommendations to bring greater emphasis to the need for change in the training of guidance and counseling personnel. It is expected that the Department staff will make recommendations to the Board and to the Council within the next three to four months.

## **B. Past Recommendations**

1. On recommendations where action is possible and feasible but not of immediate accomplishment, the Council makes periodic progress checks. Some are reiterated for effect (such as inadequacy of counselors) with the knowledge that this is more of a local than departmental problem.

2. In its 1970 Report the Council recom-

merced that joint studies be made by various boards affected toward conversion of an existing institution to a residential vocational-technical school. The 1971 Legislature provided for such a potential change at Murray State College, a former two-year A&M school under that board of regents. The Board of Regents for Higher Education de-



creed a change of function at Murray, to make it a vocational school, and was upheld by the State Supreme Court.

3. Among 1970 Council recommendations was one advocating a training program for a category of guidance technicians at less than degree level, specializing in the "World of Work," to help relieve the chronic shortage of counselor and guidance personnel.

The State Department's reaction was that, while it had an interest in training such people at less than professional degree level, this must originate from public schools requesting a program to provide a counselor

aide or guidance technician. Little progress has been made but emphasis was promised.

The National Advisory Council, in its Sixth Report, June 1, 1972, calling for change in guidance and counseling, included under "What Must Be Done": "Decision makers in education make extensive provision for the training and employment of a wide variety of para-professional personnel to work in guidance under supervision of professionally qualified counselors."

4. Action was taken, completed or underway, on all other 1970 recommendations, in addition to the above 1971 resume.

## CONCERNS AND CONCLUSIONS

### I. Program changes as a result of supply-demand factors shown by the Occupational Training Information System (OTIS)?

A. No new programs where a strong demand is shown, correlated with economic and other priority considerations. Number of T&I programs increased by 73; Health programs increased by 47; Technical programs increased by 22; Business and Office programs increased by 17; Distributive increased by 32 programs; Occupational (or gainful) Home Economics programs increased by 36. No new programs added in production agriculture or useful home economics, instead a redirection of a portion to agri-business and gainful home economics, with the overall objective of "eliminating or redirecting 50 percent of the existing vocational and technical education programs in occupations of no demand justification," (State Department).

### II. Internal changes in programs as a result of OTIS?

A. Action on redirection of 25 percent of the Agriculture and Home Economics programs toward Cooperative Vocational Education programs (CVE). These are programs of low enrollment but where enough students are available for other vocational programs. Action has started on redirection of an additional five percent of Agriculture and Home Economics programs to service areas of those training programs, rather than the traditional.

### III. Adequacy of the evaluation instrument used in assessing 20 percent of the state's vocational and technical programs in academic 1971-72?

A. Using the team approach for on-site evaluations, with prior input from school administrators and course instructors, the instrument designed by Ralph Ross appears to be an excellent method for helping local school personnel to improve

programs, and to provide the State Department with valid information for use in supervision, to justify so far as possible under practical conditions the continuance, withholding or alteration of reimbursement into other programs. (See Appendix D.)

B. An important corollary to the instrument is criteria against which the process evaluation may be based, to determine ways in which administrators and teachers may change programs for the greatest potential improvement. With the criteria and instrument as framework for evaluation, the result should have an overtone of accountability for expenditure of funds. The criteria:

#### 1. Placement:

Definition: The number employed in a training related occupation, compared to the number of graduates who are available for placement, plus the number of dropouts with a marketable skill.

#### 2. Retention in the Program:

Definition: The number and/or percent of original entries in one year who did not graduate or transfer to another school and are enrolled the following year.

#### 3. Continuing Education in a Related Area:

Definition: The number and/or percent of graduates that are continuing their education either in the occupational area for which they were trained or a related area.

#### 4. Availability for Employment:

Definition: The number and/or percent of graduates and dropouts that have left the program with a marketable skill and are available for employment (as indicated by the teacher on the follow-up form).

#### 5. Enrollment in the Program: (To be

considered as a criteria if the program falls below the minimum number of students recommended for the program.)

Definition: The index of the number of students enrolled in the program will consider: (1) the number of students in the school, (2) the number of vocational and technical programs, (3) the number of students enrolled in vocational or technical programs, and (4) the minimum number of students recommended for the vocational or technical program.

Task Force Members: Arch Alexander, Victor Van Hook, Byrle Killian, Ralph Dreessen, M. J. DeBenning, Patricia Jamison, May Rollow, John Talbott, Roy Ayres, and Dale Hughey.

Resource Persons: Bill Stevenson, Charles Hopkins and Ralph Ross.

#### IV. Greater emphasis on placement, in addition to mechanical means such as distribution of the Vital Information for Education and Work (VIEW) materials, which are contributory to placement after the primary purpose of aiding occupational choice?

A. After the normal decrease in numbers because of continuing education, withdrawal from the work force, armed force duties and fear of not securing employment in the fields for which they were trained, presently but 45 percent of secondary and post secondary vocational-technical course completers in Oklahoma are available for employment. Of that number, 73 percent are placed on jobs related to their training. That leaves 55 percent of the trained graduates unavailable for placement.

B. Regardless of the economic situation which has tightened the job market, and notwithstanding the efforts of industrial coordinators and instructors, diluted by other duties, both students and the general public appear to hold Vocational-Technical education itself accountable for more effective placement.

C. To remedy this situation, a study has resulted in a proposal by the State Department, submitted by Dr. William W. Stevenson, head; Dr. Charles O. Hopkins, planner, Division of Research, Planning and Evaluation, and Susan K. Leverenz, management by objectives specialist, to establish an operating Vocational and Technical Education placement service, coordinated at the state level, for fiscal 1972. The essential objectives are:

1. To establish two operating Centers for Vocational and Technical Education Placement Service in an area vocational and technical school in the vicinity of Oklahoma City and in the vicinity of Tulsa

to serve the surrounding vocational and technical institutions in Fiscal Year 1973.

2. To establish a working relationship between the Coordinator, Employment Commission, employers, businesses, and industries with the Coordinating Center and the two Centers for Vocational and Technical Education Placement Service in Fiscal Year 1973.

3. To develop a functional model for all Vocational and Technical Education Training Institutions for Placement Services to cover the entire State of Oklahoma in Fiscal Year 1973.

V. Last year the Council was involved in on-site evaluation of ten auto mechanics programs, to seek, if possible, reasons for five of them to be considered good and five poor. A follow-up on action, or lack of it, on resulting recommendations made to administrators of the bottom five in the pilot study indicated these results:

A. Atoka: Purchased \$1,500 or more of new equipment; painted interior and exterior of building; superintendent reviewed all other recommendations with instructor as of June 1.

B. Douglass (O. C.): Purchased \$1,460 of new equipment; provided 40 gallons of paint for interior decorating; local administrator will supervise program more closely; program under probation; no action on other recommendations.

C. Red Oak: Superintendent presented evaluation report to board; \$1,500 of new equipment purchased; new facility to be built in 1972-73; minimum enrollment criteria satisfactory; report reviewed with instructor.

D. Hinton: Purchased \$1,800 in new equipment; will provide instructor release time to visit other similar programs; shop cleanliness will be stressed; no action on other recommendations.

E. Alluwe: No positive information on equipment expenditures or any other action taken on recommendations.

#### VI. Demand and supply in the field of Health Occupations?

A. Studies of the last three OTIS reports indicates that in certain areas, such as Licensed Practical Nurses (LPN), the net demand has decreased. (Demand less supply.) This indicates that the oldest of Health programs — and one that has been pushed since expansion of the training cluster — is approaching a leveling off situation in some state areas. The State Department will con-

centrate efforts in the areas of greatest need while seeking certain increases in the overall training cluster by four programs (State Plan).

#### **VII. The possibility of vocational-technical teacher training being locked into a system dominated by certificate requirements?**

A. The question was studied by a committee representing four departments at Oklahoma State and the Vo-Tech department with the following results:

1. Certification requirements are not completely rigid; there is some flexibility within the framework; requirements should be reviewed periodically to determine validity; some changes have been made fairly recently.
2. Teacher education programs must be patterned after both degree requirements, from one governing source and certificate requirements from another. Conflicts often develop. Differences must be reconciled between (a) departmental staffs (b) the certificate program development committee (c) the curriculum committee of the college in which the department is located and (d) the council of teacher education.
3. Pleasing to teachers is the fact that OSU now gives academic credit for certain workshops and exchange programs, some of them requested by teachers and conducted by staff or qualified professionals in the subject area, as a portion of requirements.

#### **VIII. Job analysis approach toward planning occupational training clusters?**

A. Studies have begun on listing skilled and semi-skilled jobs into common cores, related to OTIS, more in specialized than exploratory areas. From the 15 USOE clusters some 300 occupations can be extrapolated for Oklahoma.

B. With FY 1973 all units and division personnel of the State Department will be under the Management by Objective system. Priorities established will save time, avoid guesswork and, hopefully, eliminate management by crisis.

#### **IX. Cost-benefit study.**

A. Should be complete by next fiscal year. The cost factors are ready but not all benefits. There are apparent variables forthcoming such as in computer science, now approaching marginal demand.

B. The study will include the base points of entry level wages; the greatest return to the state's economy; returns to the individuals and local economy.

C. A potential ten percent budget cut will have an impact on a fewer number of persons trained. Factors of importance then would include:

1. Should the program be based upon what we have now or what additions would be needed?
2. What would be the optimum for the state?
3. What resources must we have to take care of the state's manpower needs?
4. At best, the present state plan — projected in advance of budgetary funding knowledge — is equivalent to holding up a mirror and shooting over one's shoulder at a target.

#### **X. Career development in Health Occupations training?**

A. Currently Mrs. Patricia Jamison, state supervisor, is researching feasibility of implementing a model program, probably in the Lawton area. Institutions available for in-service training could include a community hospital, Indian hospital, and post hospital at Fort Sill.

#### **XI. Curriculum changes for redirection of 25 vocational agriculture programs toward cooperative agri-business?**

A. Being developed with thrust of management by objective. Twelve schools initially involved with six as controls. Business and industry involved in curriculum development to determine value of new methods and materials compared to old basic core curriculum. OTIS clusters included. All types of students involved including the disadvantaged. Ninth and tenth grades included in new curriculum studies for career orientation on agri-business. Internships being used for research activities.

#### **XII. Need for uniform accounting systems for non-expendable equipment?**

A. Schools cannot operate legally now on a basis similar to business in setting up funds toward replacement of equipment. Sinking funds may be accrued only for start-up purposes in a succeeding year.

B. There is no uniform accounting method adapted to present needs. If a 10-year depreciation schedule were used the state now would require \$1.5 million annually to replace equipment, from federal, state and local sources.

C. The previous guide has been State Department of Education Handbook II, now dropped, with a new version being tested. Vo-Tech is seeking to implement a standardized version in cooperation with the state educational finance office.

D. A pilot project is underway in five schools. The old method of having a categorical sum prorated across programs does not fit vocational education as it does academic instruction. Vocational program accounting should include amortization, set useful life of equipment, apply specified percentage for school administration but not prorate that charge to individual programs.

### **XIII. Credit for area or high school Vo-Tech graduates at technical institutes?**

A. There is not uniformity in post-secondary institutions on credit that eliminates necessity for some duplicate courses. Usual method is to obtain advanced standing by examination although this is not spread over all courses. At OSU Technical Institute in Oklahoma City and at OSU Tech, Okmulgee, for example, advance standing is permitted on electronics, drafting, design and computer science, if Vo-Tech secondary graduates meet test criteria. Eastern Oklahoma, at Wilburton, Northeastern at Miami, Tulsa Junior College, Cameron at Lawton and Murray State at Tishomingo, are approaching uniformity in the matter of course credits for previous work.

B. Crediting work done at the secondary level was seen by Dr. Lloyd Wiggins of OSU's department of occupational and adult training, as distinct encouragement for continuing training at a higher level. He felt there does need to be more coordination on curriculum between area schools, with the residential school at Okmulgee, technical institutes and junior colleges.

### **XIV. The matter of different teacher training programs having their own separate courses in history and philosophy of vocational education; related costs and effectiveness?**

A. A team approach is being used on the subject matter to determine commonalities but not specialized areas peculiar to each discipline. The committee represents all occupational training and includes the group engaged in perfecting at Oklahoma State the Model for Improvement of Pre-service Programs in Vo-Tech Teacher Education, or MIPP-VTTE.

B. Comment from the MIPP-VTTE committee:

It was said there needs to be more discussion about methods, commonalities, and competency levels. Are there things which all vocational-technical teachers need to know, or are there things which only individual departments need to know? Is it necessary to set things down in a course structure? A member stated that we need to determine what exactly are the values of a joint class or of the history and philosophy courses,

in vocational-technical education. It was pointed out that students are greatly interested in methods courses but not particularly interested in the philosophy course. Possibly the philosophy course should be tied in with the methods, teaching, and purpose of a program.

Also raised was the question of where this philosophy course is best received and at what level does it have the best impact -- the freshman, sophomore, junior, or senior level. It was the consensus that the Advisory Council should be informed of the joint classes, expansion of resource personnel, field trips, leadership programs of joint efforts, etc.

The query raised several questions in minds of the Committee. Such as: (1) What is the major objectiveness? (2) Does the name History and Philosophy tied to a course carry negative connotations? (3) Does this have to be a course? How about other methods?

The committee would like to relay to the Advisory Council the present work on campus being done in this area. Students in various education departments have met jointly during the past year to share ideas about their different areas, which included history and philosophy. This has been an experimental approach and is presently being evaluated thoroughly. Recommendations from this evaluation will be implemented next year.

Other than this undergraduate approach to coordination and cooperation, several graduate courses are being shared or team taught. Tests and measurements is taught for all areas by the Industrial Arts Department and Research by the Agricultural Education Department. Adult Education is jointly taught by Agricultural Education and Occupational and Adult Education Departments. Many courses use specialists from other departments as resource persons.

The culminating approach to cooperation to date has been establishment of the MIPP-VTTE Committee. This has provided a means for such issues as this one to be approached jointly. The Committee is in progress of considering a framework of methods and means for further improving coordination, communication and cooperation among the various vocational-technical departments at OSU.

C. Comment from Agricultural Education:

It is assumed that the function of theory and philosophy courses in vocational education is to provide students with information and skills in the areas of programming, and giving priorities to functional patterns in vocational-technical education. At many in-



stitutions, history and philosophy courses are so theoretical, and remote from the everyday functions of a teacher or administrator in vocational-technical education, that they have little value. Oklahoma State University, on the other hand, is aware of the need to provide certain common learning experiences for all prospective teachers in the various fields of vocational-technical education.

In order to resolve this difficulty, we have established, during the past year, a list of common learning experience, one hour. By scheduling beginning or other appropriate courses at the same hour, it is possible to gather all vocational-technical students together for this common learning experience. It is then possible through discussion groups, in all the areas, to relate these common learnings directly to their individual field of study. Admittedly, this first year has been somewhat experimental, but we are encouraged by the student response and evaluation.

With regard to courses directed towards theory and philosophy, or history and philosophy, we do not feel that this would necessarily result in improved communications or economical cost reduction in terms of effective student learnings. We definitely feel

that involving each of the teachers in the respective areas in the common learning experience will prove quite valuable. We feel further that our past record as far as the effectiveness of student learning is not to be entirely discounted. We honestly submit that we are quite aware of the need to improve communications and develop greater rapport between students in the various areas, but we do not think that a single course would necessarily insure such improvement.

#### **XV. Certification requirements for area school administrators?**

A. Persons serving as administrators or assistants who held only vocational certificates, under current State Department of Education regulations had to secure an administrator's certificate by September 1, 1973, an impossibility for most of them because of time.

B. Action by a Council committee headed by Dr. Sizemore Bowlan, working with an ad hoc committee representing the State Department of Education and State Va-Tech Department, resulted in regulation changes approved tentatively by the State Board. Final joint approval is expected. Personnel remaining in the same school will not be penalized in meeting certification requirements.

## RECOMMENDATIONS

1. That the State Board for Vocational-Technical Education strengthen the provision for local advisory committees for vocational programs as part of the formal application for local program reimbursement; that the Board require local districts to make "effective use" of such advisory committees during the school year 1972-73; that the Board make such committees mandatory by the school year 1973-74 as part of the legal contract between the Board and local districts. (See Appendix A)

2. a. That the State Board work with the Central State University Administration toward developing a Department of Vocational and Technical Education within the University, needed because of CSU's expanded teacher training role.

b. That instruction at CSU for in-service personnel living off campus be put into a three hour time block on evenings or Saturdays, rather than one and one-half hour blocks, so that teachers will not have to drive to Edmond from over the state twice weekly.

3. That the State Board strongly support a proposal developed within the Division of Planning, Research and Evaluation, to establish a two year pilot project on placement of vocational students, with centers at Oklahoma City and Tulsa. (See IV, Concerns and Conclusions.)

4. That the State Board support to the maximum possible and encourage more "World of Work" programs in elementary grades.

5. That the State legislature amend statutes which limit school fund reserves to operational starting costs in a succeeding fiscal year, to permit accumulation of a reasonable equipment replacement fund, based upon expected life of shop and laboratory equipment.

6. That the State Board exert its influence with the State Board of Education under the contract for guidance and counseling, to secure more group counseling to offset the limited accessibility of counselors, in face of the large ratio of students to counselors, the extraneous duties required of many counselors, and the need of students for orientation and information helpful in making individual choice of further education and/or training.

7. That the State Board explore the possibility of securing retired armed service personnel with skill specialties as instructors, under temporary certification, whose second career income would offset difficulty of securing journeymen of equal skill in view of the differential between teacher's pay and that in industry.

8. That the State Board, in coordination with the State Department of Education, study the feasibility of obtaining a common attendance calendar for area schools and schools of their affected local districts who send students to area schools, to avoid frequent disparity of one or more days in opening and closing terms and in holiday schedules. We realize this normally is a local prerogative but irregular calendars cause student hardship.

## COMMENDATIONS

A. The Council wishes to concur in, and commend the State Department for, its management by objective determination that has for a FY 1973 target, the implementation of 87 new programs in the most critical demand areas. The objective is to train 2,990 projected new students in addition to the 65,000 presently being trained in 1,440 programs (plus 52 programs at OSU Tech and OSU Technical Institute's 10).

1. Included are 55 new programs in 17 area schools and 30 comprehensive high schools, and

2. A total of 32 new post secondary programs in 19 institutions, primarily in Health Occupations training.

3. Construction completion of the New Northeast Oklahoma Area School; to begin construction of the Pioneer AVTS at Ponca City and the Carl Albert AVTS in the Pontotoc county area, if patrons of the latter pass the necessary support levy.

4. For purchase of \$24,000 of equipment for the three area schools offering aeronautical programs, so that they can meet Federal Aviation Administration standards in FY 1973, for proficiency testing.

5. For purchase of \$168,000 in new equipment for the Indian Capital AVTS, Muskogee, which can be used for satellite schools at Stilwell and Sallisaw.

B. The council commends the State Department for setting priorities for Fiscal 1973 in specified training clusters of all program areas, and agrees with those priorities.

C. Special commendation is due the five area schools that have been accredited by the North Central Association of Colleges and Secondary Schools. These are the only such schools presently accredited in North Central's 19-state area. They are the Vo-Tech Centers at Tulsa, Duncan, Burns Flat, Wayne and Shawnee.

D. Noted as worthy of commendation are State Department directed activities including:

1. Establishing minimum criteria for teacher certification in Health Occupations and Home Economics, in relation to new trends and needs.

2. Work of the Professional Personnel Development Council leading to improvement in instructional quality.

3. Use of the Delphi technique to survey opinion leading to defining the role of vocational-technical education for Oklahoma in the 1970's.

4. Work toward establishing a uniform accounting system at school level. (A past Council recommendation.)

5. Special schools for a very good job at training for new industry.

6. Implementation of the system of management by objective.

E. Special note is taken of the excellent Cooperative Vocational Education Training summer programs (CVET) at Tinker Field.

F. Redirection of production agriculture programs to agri-business and home economics programs from useful to gainful.

G. On-site evaluation of 20 percent of programs the past academic year, with emphasis on the role of the Division of Research, Planning, and Evaluation in perfecting the instrument used and conducting the evaluations. Of particular Council interest will be to see what action is taken preceding and during academic year 1972-73 as a result of the 1971-72 evaluations. The State Department appears to be committed to a concept of beneficial change. It has fiscal and other limitations. Some action must actually be done by local boards, administrators and instructors. Without action, evaluation is an exercise approaching futility.

H. Cooperation of all divisions and department administration with the Council.

I. Notable for cooperative attitudes, and resultant tangible progress toward eliminating a time block on certification of some area school administrative personnel, was joint action of a council committee, the State Department of Vocational-Technical Education and the State Department of Education.

J. The Oklahoma City School district and its Director of Vocational-Technical Education are commended for an exceptionally well received summer counselor orientation program. Fifteen high school counselors spent six hours daily, for four weeks, as trainees in eight different training programs at the area school, all of them getting some "on the job" experience for the first time.

K. The Council wishes to give special recognition to Oklahoma State Tech, Okmulgee, the Oklahoma State University School of Technical Training, during this, OST's 25th anniversary year. Tech's high quality educational program that uniquely educates both hand and mind has caused much favorable national attention to be focused upon this state due to its leadership in vocational education.

Of special note during Tech's silver anniversary is:

1. An enrolment of 4,433 full-time students during the school year in this North Central Association accredited branch of OSU. Students selected an area of instruction from 52 separate courses in 16 career interest areas.

2. Utilizing 156 highly qualified instructors the school graduated some 1,000 skilled craftsmen and technicians this year in three separate commencements, thus insuring business and industry a continuous source of qualified employees.

3. A 3-day celebration to recognize Tech's 25th anniversary year with special honors for members of Tech's Advisory Committees.

4. The completion of Tech's new General Education classroom building — a 22,000 square foot facility containing 16 classrooms and utilized by all of Tech's students.

5. Dedication of Tech's new Automotive

Center containing 22,500 square feet of instructional space for students enrolled in the first two trimesters of auto mechanics. Officers and members of the Oklahoma Automobile Dealers Association and the Fred Jones Industries were present to assist in the dedication of the building.

6. Formal opening of Tech's Graphic Arts Center to house printing and commercial art courses and the public information office. This 25,000 square foot structure combined all elements of the graphic arts industry under one roof. Officers of the Oklahoma Press Association helped dedicate the modern facility.

7. These new facilities bring the total floor space for vocational-technical education purposes up to 450,000 square feet and a total campus dollar value in excess of \$17,000,000, not including equipment for visual aids valued at approximately \$7,000,000.

## AREA SCHOOL SURVEY

The 18 operating Area Vocational-Technical schools (AVTS) in 15 districts for the year 1971-72 had 7,276 students in 233 secondary programs and 465 post-secondary students in 22 programs. It should be remembered that many adult evening classes are conducted at schools with vocational programs. They are often of a post-secondary nature but not classified as such.

Buildings at Alva and Fairview have been completed and accepted by the Oklahoma Northwest Area Vo-Tech School District. Initially there were six secondary programs offered at Alva and four at Fairview this autumn.

Under construction are two campuses of the Northeast Oklahoma Area Vo-Tech District, between Afton and Miami, and between Pryor and Claremore. They are planned to open in September 1973 with 13 programs each. In the planning stage this summer was the Pioneer Area school in Kay county. Districts have been formed for the Carl Albert school in the Pontotoc county area, for the Pawnee-Stillwater-Guthrie area, and for the Norman-Moore area.

The Enid area school has been expanded from the original city district to include all of Garfield county. A five mill, general fund levy was voted, 1,551 to 539. Patrons of the Central Oklahoma Area School, Drumright, by 953 to 507 increased their general fund levy from three to five mills. Kay County's Pioneer Area school district voted a 3.5 mill support levy by 1,732 to 239. The Carl Albert Area district's four mill levy was defeated May 23 by some 200 votes.

The Council was concerned about a number of points regarding area schools. To save time and some 1,702 miles of travel, a questionnaire was mailed the head of each school on May 19, requesting a reply in an enclosed, stamped envelope by June 1. As of June 10, there were replies from 15 of the 18 schools. Summaries and comments follow:

All said instructional time blocks were equitable or adequate. Comments: In the future we may run three, 3-hour blocks in some classes—a system should be researched for keeping area schools open 14 hours daily 12 months per year—consideration needs to be given the potential dropout and hard core economic disadvantaged. They could well become full-time day students in occupational training with aid of remedial technical math and English.

On what type of records for placement and follow-up are kept, six of the 15 said five year follows were planned or operating. Other comment: Our action inadequate—plan is to make contact with student the first year on a job and once yearly for four more years—we are on a computer which works well until research procedure changes—our objective is to place 80 percent by last day of classes— instructor keeps records on placement as part of a merit pay system—we have coded evaluation sheets on students—keep file on each student— keep records on each student, employer, and job description.

On instructional changes made as a result of follow-ups, among ten schools with more than a year's experience, these were comments: Some modification resulting from

needs of business and industry—dropped one program and added others (not specified)—changed welding—made basic changes in curricula and time blocks—changed curricula immediately because of reports from employers and former students—changes in techniques and processes—made equipment changes—dropped computer programming and drafting, added printing and food service due to poor placement—caused changed attitudes of teachers who taught previously in progressive systems—put added emphasis on character training and on employee-employer relations.

On what type of orientation programs or promotional activities are taken to elementary schools of the district by area school staff, five respondents referred to summer orientation programs, three mentioned P-TA presentations.

Other comment: Presented slide programs to eighth and ninth graders—cartoon presentations at elementary schools—continuous personal contact—visitations by staff—tours—counselor orientation—none—none but planned—very little due to lack of resources—used VIEW program—distributed brochures.

On how many and what type of persons are used on craft, skill or industrial advisory committees, these comments were made: Every type from jobs directly related to instruction—overall committee of 20—all departments have groups of five to 10 members—100 on overall committee—professional or skilled persons, six to eight—50 from machine operators to company officers—60 owners, managers, craftsmen—five member committees including three labor, one industrial, one administrative—include each high school principal in district to improve transportation, discipline and grade reporting.

There was rather general agreement that the committees were used although the public relations aspect was a secondary benefit. The most detailed reply said that committees helped to determine community needs; evaluated programs; helped select students; guided and supported instructors; promoted adult classes; improved image of the programs.

In reply to a query: "Do you feel that you understand your official relationship with the State Department?" 14 said yes, one said no, one said: "Sometimes not, but don't misunderstand me, we have the best state director in the nation."

Asked to suggest changes, the only comments were: Doing great under the circumstances (not detailed)—Area schools division

should be elevated—all Vo-Tech at an area school should be administered through an area district superintendent—many divisions should be changed to specialists.

Asked which they considered more important, an administrator's certificate, a vocational certificate, or both, four said, administrator; six said vocational (all but). (Background could have influenced these answers.) Comments included: should be headed by an administrator with vocational education people employed throughout—area schools were well operated before we had either, why such a major certification requirement when community and junior colleges have none—more than just one institution should train administrators—to relate to skilled craftsmen one should understand trades—vocational background more essential but vocational education qualified persons should take some key administrative courses, neither guarantees success—an administrator should have both but in a Vo-Tech environment a vocational background is necessary—an administrator should have exposure to vocational-education methods and procedures but perhaps not a vocational education certificate—chief administrator must understand the philosophy of Vo-Tech in addition to knowing administrative techniques.

In fixing a cost per student ratio on non-expendable equipment, six said costs were charged on an annual basis the academic year acquired, one said on a calendar basis, six amortized costs over expected life. None said they attempted to create a replacement fund, difficult under present legal restrictions. Two have a depreciation schedule and another planned to do so.

One comment as to fixing per student costs was that hours used in instruction, day and evening and special programs, were divided into total cost per academic year.

Asked how often members of the state supervisory staff visited them, six said quarterly, four said annually, two said monthly, the others, "two to four times a year."

As to area school coordinators visits, four said quarterly with two others replying, "approximately quarterly," two said annually, two put down semi-annually. Two said, "on request."

To a question: "Do instructors without degrees complain about having to secure credit hours?" Seven replied "yes," seven answered "no" and one wrote "not to me."

Some comment: "Persons who have been in industry should not have to pursue eight semester hours per year until they receive a bachelor's degree. This makes it difficult to



secure competent, skilled persons. It appears that we are going to become stereotypes similar to the public schools unless changes are made." Others said there was little complaint when studies were directly related to the teaching job or when courses really helped to a better job. Some demands were called unrelated to teaching.

In relationship to their boards, eight respondents replied these groups were active, 12 said they actively set policy, eight added that boards required detailed explanations, only three said their boards accepted recommendations and reports with little comment. "Discuss and ask questions," was stated several times. One reply was, "listen to administrator suggestions and willing to attempt innovations."

On relationships with sending high schools, 11 said they were excellent, three said good, and one replied that improvement was needed. Home school activities offer some scheduling conflict. Continual interchange of ideas between all responsible was seen as necessary to maintain good relationships.

Asked if their adult programs were taking care of demand, 14 replied in the affirmative while one said "yes and no." His reasoning: "It is difficult to reach the hard core disadvantaged. There needs to be very basic working relationship between all agencies—Vo-Tech, Adult Basic Education, MDTA, Veterans, Unions, BIA, CAP, etc."

Others said more agencies with money for adult education should put it into an area school—six hours a day is not enough to train an adult as quickly as the individual or industry desires—careful planning needed on certification—need for statewide coordination of materials available for programs offered—short of administrative help for adult supervision.

On whether they have benefitted from the state equipment pool, 12 said they had, one said slightly and two said no. One of the latter added: "We are too far away, geographically, it's too much of a battle to get anything. Can hustle it on my own, that's easier and cheaper." Another said delivery on newly purchased equipment was slow but improved over last year.

Asked what programs or services they needed that cannot be secured with present local and state funding, four had no comment, others listed buildings, programs and teachers. Specifics were: Adult or post high school day programs with equipment and teacher funding. Have more veterans, BIA, WIN, NYC, rehabilitation, etc., people than can accommodate—expansion needed for LPN's and cosmetology—need storage and buildings for some construction trades—need a staff member to do research, help with placement,

work with advisory groups and youth groups—need 15 additional programs—much adult evening training and transportation for adult students needed badly, same for disadvantaged both day and evening—need placement coordinator to work with employment service, college, civil service, etc.

To the question: "Do you enjoy your present work as compared to former work?" Fourteen of the respondents said "more" and one "about the same." One added that he enjoyed the opportunity of providing a service to people. Another gave as a reason for enjoying his job more, "All subjects here are elective. Students are here because they want to be."

Queried about securing satisfactory faculty, six said they had some difficulty, nine said they did not. Asked to explain some difficulties, three mentioned the collegiate hours requirement for skill instructors while two pointed out the higher pay in industry for persons qualifying as instructors.

Aid in securing instructors came from other teachers, the State Department, industry and college placement centers. Some comments: "Most people with a potential for outstanding teachers did not choose a trade for career; most trade people are not interested in teaching. Advisory committee helps locate people with an ability to teach and an interest in it."

The administrators were unanimous in saying they felt the school had community support, aside from the original enthusiasm which created the districts.

Asked if they had noticeable patron visits on other than special days, such as an open house, 12 replied "yes" and three said "no." One statement said "everyone is too busy." Another said local civic clubs toured facilities as part of their meeting program. One person said there were visitors but more could be done with civic groups. One reply was "yes — daily."

To a question: "Is the school used for community meetings not directly school related?" seven replied "yes," four said "no" and four wrote "some . . ."

They were asked if the school had a known policy on such usage. Nine replied in the affirmative, three negatively and three said each situation was handled separately. Some remarks included: Based on need of groups — most community meetings are school related — such uses are mostly on special invitation.

Respondents were asked if they used OTIS supply-demand information in program planning, and if they had made changes directly attributed to OTIS. Twelve said

they used it, three qualified that by, "yes - some," while five mentioned changes, although three did not specify what changes, and two said alterations were in instruction methods. Starts mentioned were: electricity, brick masonry, and eight programs at a satellite school; off campus classes planned for food service and printing; agri-business and office adult evening classes. Drops mentioned were data processing, computer programming, hydraulics and drafting.

A question asked was: "Do you have a system or plan actually used to identify potential dropouts?" Seven replied "yes" and eight said "no." First responsibility for dealing with such people was placed on instructors by eight respondents while one said this was a counselor function. There was general check mark consensus that the order of responsibility was (1) instructor (2) counselor and (3) administration. Comments included: After identification, what comes next? — we need a system to deal with them—we rely on the home school to identify.

A question related to elections on millage, subsequent to the original one, whether or not they passed and by greater or smaller margin than the initial levy for the school. Four said an additional election was held; two passed by a greater margin, one passed by less and another was defeated by a larger margin than the original school levy was passed.

Asked about their faculty retention situation, six said it was good, two said average and seven called it excellent. However, one respondent who checked "excellent" noted "lost three."

To the question: "What is your faculty salary situation relative to comparable positions in affiliated high schools?" Six said it was better, one was not sure, and eight said it was about the same.

A somewhat tricky question was: "Is there anything specifically about your job that's bugging you?" One left the space blank, five said "no" one said "nothing serious — I am happy." Others made comments including: There is an indicated lack of knowledge of all state department or other state agency personnel as to what purposes and philosophy of area schools should be — certification of teachers and administrators— salary too low for top two positions in relation to state average but enjoy the work tremendously — yes, probably don't do as efficient a job as I should — financing, knowing budget in time to plan for next year — money and space — not enough funds to staff adequately for all demands.

Asked if they had active youth organizations, 12 said they did, three replied that they did not but one of those planned to organize a VICA chapter this autumn.

A more probing question as to whether they felt that youth groups were of sufficient value to warrant extra effort, the responses were mingled. On the dubious side was: Time schedules make it difficult — they are watered down, at best — I support clubs when students are from one town — meetings and programs take too much out of instruction time — after school hours are an impossible situation — difficult to fit in without sacrificing instruction time — cannot function properly because of area served.

On the more positive side, comments included: A vital part of program — creates enthusiasm — should be an educational tool and not a public display of accomplishments— should identify leaders and potential leaders and aid them in performance — any organization that teaches leadership and opportunity is good — worth extra effort but can be over-emphasized — important as an instructional and motivation tool. Good leadership training.

## Operating Area Schools 1971-72

Total Secondary Enrollment 7,276  
 Total Post Secondary Enrollment 465  
 Total Secondary Programs 233  
 Total Post Secondary Programs 22

SCHOOL LOCATION	ENROLLMENT		PROGRAMS	
	Secondary	Post Secondary	Secondary	Post Secondary
Tulsa	849	92	26	5
Enid	665	61	22	4
Oklahoma City	642	--	21	--
Lawton	537	45	14	1
Bartlesville	535	83	16	3
Drumright	503	24	13	1
Muskogee	439	24	13	1
Ardmore	377	24	13	1
Wayne	376	--	13	--
El Reno	367	22	14	1
Shawnee	361	43	13	2
Fort Cobb	357	5	12	1
Duncan	342	18	12	1
Burns Flat	222	--	9	--
McAlester	206	24	6	1
Poteau	193	--	6	--
Chickasha	163	--	6	--
Hugo	142	--	4	--

### Advisory Council for Vocational Technical Education

Under 1968 Amendments to the Vocational Education Act, the Congress decreed that a National Advisory Council for the U. S. Office of Education would be appointed by the President, represented by persons in 12 specified areas of experience or expertise, and the public. Similar councilors were to be appointed by governors in states receiving federal funds for vocational education. The U. S. Commissioner of Education accepts or rejects the governor's certification of members.

Under PL 90-576, the councils are federally funded, with the allocation deposited in the state treasury and disbursed in the manner prescribed for state funds. The council's role is to evaluate the state's programs of vocational education, to make recommendations affecting them to the State Board, and report council findings to the U. S. Office of Education, through the State Board, which may append any remarks it cares to make but cannot amend the report. Similar responsibility is mandated on occupational education under recent authorization in the Education Amendments of 1972.

The councils, under the law, choose their own officers, decide on their bylaws, employ their professional staff, and may make contracts for research or other studies needed for the evaluative and advisory roles.

The Oklahoma Advisory Council is a part of the executive branch of state government. The 20 current members were appointed by Governor David Hall, 15 of them being reappointments, two to fill vacancies by resignation, three to expand categories of expertise including a representative of a vocational youth group. The list of members and their business address follows:

#### EXECUTIVE COMMITTEE:

Roy Craig, Leedey, Chairman  
 Clinton Production Credit Assn.  
 P. O. Box 157; Clinton, 73601

Dr. Sizemore Bowlan, Vice Chairman  
 Director of Vo-Tech Education  
 Oklahoma City Public Schools  
 900 North Klein; Oklahoma City, 73106

L. G. Ashley, Secretary  
 Superintendent of Schools  
 Boley, 74829

Dr. Alfred M. Philips, President  
 Tulsa Junior College  
 909 South Boston; Tulsa, 74119

Ted Savage Secretary-Manager  
 Chamber of Commerce  
 P. O. Box 248; Ada, 74820

Theodore Wheaton  
 6005 Crestview  
 Oklahoma City, 73111



L. P. Williams, Business Manager  
Building and Construction  
Trades Council  
1404 Northwest First  
Oklahoma City, 73106

OTHER MEMBERS:

Mike Arnett, (FBLA)  
624 East Noble; Guthrie, 73044

Sidney Carney, Area Director  
Bureau of Indian Affairs  
P. O. Box 368; Anadarko, 73005

Vern Childers, Manager  
General Motors Training Center  
12101 Northwest Expressway  
Oklahoma City, 73131

Joe Day, Manager  
Personnel Relations  
Westinghouse Corporation  
Norman, 73069

Mrs. Myrtle Earnest  
519 Myers Drive; Alva; 73717

Mrs. Caroline E. Hughes  
1000 South Howerton; Cushing, 74023  
(Also a member of the National Advisory  
Council)

Orbra Hulsey, Superintendent  
Caddo-Kiowa Area Vocational  
Technical School  
Fort Cobb, 73038

Arthur D. Lindberg, Director  
Oklahoma Industrial Development  
Department  
500 Will Rogers Office Building  
Oklahoma City, 73105

William F. Lott  
5705 North Florida  
Oklahoma City, 73106

Wayne Miller, Director  
Oklahoma State Tech  
Okmulgee, 74447

Cleveland Rodgers, Executive Director  
Oklahoma Hospital Assn., Inc.  
1145 South Utica Avenue; Tulsa, 74104

Drval A. Siler  
Continental Oil Company  
420 North Eighth Street  
Ponca City, 74601

Dr. Maurice P. Walraven, Director  
Special Education  
State Department of Education  
4545 Lincoln Boulevard  
Oklahoma City, 73105

PROFESSIONAL STAFF:

Roy P. Stewart, Executive Director  
4901 North Lincoln Boulevard  
Oklahoma City, 73105  
(405) 521-3986

Mrs. Elois Kirkpatrick, Secretary  
4901 North Lincoln Boulevard  
Oklahoma City, 73105  
(405) 521-3986

## APPENDIX

### A. Local Advisory Committees

The State Board should strengthen the provision for local advisory committees for vocational programs as part of the legal contract between local districts and the State Board.

Background: Use of local advisory committees appears to be mandated under the State Plan, Part I 3.22-2: "The use of advisory committees, the assurance of employment opportunities, and the establishment of evaluation procedures shall be included in the application."

That is not strong enough. In attachments for Form VE 6006, revised April 1971, there is language that says "programs will meet standards, provisions and requirements of the State Plan." Hence if that document's provisions on local advisory committees is strengthened, the application's items become part of the legal contract between district and board. Failure to comply would be grounds for withholding reimbursement.

Local advisory committees can create more involvement in vocational education, assist in making instruction more relevant to local and regional occupational demand needs, and contribute to better employment opportunities for graduates. Also, if career education is to become a reality, state agencies must work more closely with local districts and administrators.

The need for creation of more local advisory committees and their more effective use is shown clearly by Project No. 17, Division of Research, Planning and Evaluation: "A Descriptive Study of Oklahoma's Vocational and Technical Education Local Ad-

visory Committees," by Charles O. Hopkins and Kenneth L. Ritter, January 1972.

This study was based upon a query instrument to 1,636 instructors, of whom 55.5 percent, or 908, responded. The program area with highest questionnaire returns was Business and Office occupations, with 80.2 percent. Lowest was Health Occupations with 46.8 percent.

From the returns, and on the assumption that these teachers were typical of their peers, the following projections and conclusions were drawn: Nearly two-thirds of the teachers do not have assistance of advisory committees; of those who do, nearly nine of ten feel they have been beneficial in program planning; committees meet once or twice a year or held no formal meeting; number of committee members varies; the largest benefit was formulating program objectives (which can be evaluated) and helping get employment of students. From respondents in program areas of T & I, Technical Education and Health Occupations, answers indicated that only 10 percent felt they did not receive substantial help from their committees. Other program areas rated benefits higher among the projected 605 teachers who have committees.

(In May a letter was sent by Byrle Kilian, assistant state director, to supervisors of each occupational instruction area for all programs, stressing importance of state and local advisory committees. The letter, while emphasizing advisory committees values, did not indicate other than voluntary compliance but does indicate parallel thinking to the Council.)

## B: Secondary Vocational Enrollment (1971-72 AVTS)

(Enrollment projected autumn 1971 before final year's figure of 7,276)

1. Total number of individuals enrolled in area schools 6,896
2. Percentage of area school enrollment of the total vocational and technical enrollment in the state 10.5%
3. Percent of students that area schools serve in the counties designated depressed 14.7%
4. Maximum capacity of area schools (maximum class load) 9,153
  - a. Percent maximum vocational-technical enrollment will serve 13.98%
  - b. Percent maximum counties designated depressed vocational-technical enrollment served 19.36%
  - c. Maximum capacity of area schools in counties designated depressed 7,475
5. Percentage of area school enrollment of vocational enrollment less Vocational Agriculture and Home Economics 61.7%
6. Percent maximum vocational-technical enrollment will serve less Vocational Agriculture and Home Economics 82.0%
7. Secondary enrollment (14-18 yrs.) = 185,046 in 1970  
= 190,375, 1972 estimate
8. Vocational-technical enrollment = 65,443 (projected 1971-72)
  - a. Vocational-technical enrollment in counties designated depressed = 38,592 (58.97%)
  - b. Non-depressed counties vocational-technical enrollment = 26,851 (41.02%)
9. AVTS enrollment = 6,896
  - a. AVTS enrollment in counties designated depressed = 5,686 (82.45%)
  - b. Non-depressed counties AVTS enrollment = 1,210 (17.54%)
10. AVTS maximum enrollment = 9,153
  - a. Depressed counties AVTS may enroll = 7,475 (81.66%)
  - b. Non-depressed counties AVTS may enroll = 1,678 (18.33%)
11. 
$$\frac{65,443}{6,896} = 10.5\%$$
 VT enrollment / AVTS enrollment
12. 
$$\frac{38,592}{5,686} = 14.7\%$$
 Depressed counties VT enrollment / Depressed AVTS enrollment
13. a. 
$$\frac{65,443}{9,153} = 13.98\%$$
 Maximum capacity of AVTS / Maximum VT enrollment
- b. 
$$\frac{38,592}{7,475} = 19.36\%$$
 VT depressed counties enrollment / Maximum depressed counties AVTS enroll.
14. a. 
$$\frac{11,161}{6,896.0} = .617 = 61.7\%$$
 area school enrollment of total vocational-technical enrollment less Agriculture and Home Economics
- b. 
$$\frac{11,161}{9,153.0} = .82 = 82\%$$
 maximum vocational-technical enrollment will serve in AVTS less Agriculture and Home Economics

## C: Follow-Up of 1970 Graduates, Tulsa

**Background of the Study:** To determine principal activities of the Class of 1970 following graduation. As an essential preliminary step, cooperation of the prospective graduates was requested in senior assemblies held in all nine Tulsa high schools during April, 1970. Students were informed that each year, if they responded to the questionnaire, they would be sent a list of current addresses of the graduates from their high school. Each prospective graduate then was asked to complete a card giving addresses of three local adults through whom he could always be reached.

In November, 1970, postal card questionnaires were mailed to all graduates. Those who did not return the first questionnaire were surveyed again by mail in January, 1971. From February to April, information concerning those still not responding was solicited by telephone, either from the graduate himself or from one of three adults whose names he had listed. Information was finally secured regarding 4,607, or 99.9%, of the graduates. (It was learned that two graduates were deceased and three could not be located.) All data reported herein for the Class of 1970 are based upon activities of these 4,607 former students. Comparative data for the Classes of 1964 and 1967 are derived from earlier follow-up studies conducted by the Instructional Research Department.

**Major Findings:** It was revealed that only 11.3% of the 1970 graduates were married at the time they responded to the questionnaire, in contrast with 13.1% of the 1967 graduates. Since 1970 questionnaires were mailed some three months earlier than in 1967, the difference observed is not regarded as indicative of any trend toward a later marriage age.

Only minor changes from 1967 to 1970 were shown in the types of activities pursued. The rate of unemployment had more than doubled—from 2.5% to 5.4%—but this merely reflects a higher unemployment rate in the total labor force at this time. The number in the armed forces declined from 7.6% to 4.5%, which reflects the national trend toward a reduced military force.

Shown was a differing curriculum need among schools. Those which send more than a third of their graduates directly into the labor market certainly require a curriculum emphasis quite different from those where up to 80% of graduates enroll in a college or university. The need for more adequate job preparation in high school is emphasized by the fact that in three of the schools more than 8% of the graduates are unemployed and seeking work.

Two patterns evident during the 1967 study are confirmed by the 1970 data. One is that significantly more boys than girls pursue further education in a college or university. The other is that the employment rate of 7.3% for girls is more than double the 3.5% rate reported by boys.

There is an interesting pattern of college attendance by Tulsa high school graduates. The dramatic impact of the new Tulsa Junior College is evidenced by the fact that 501, or 19.3%, of our graduates who sought higher education, were enrolled in TJC. While Oklahoma State University continues as the most popular school with Tulsa graduates, others such as the University of Tulsa and Northeastern State College have suffered a perceptible loss. Another continuing trend is that each year fewer of our graduates go out of state to school.

Almost 83% of our students who seek higher education enroll in a college or university within this state. An additional 11% go to school in one of the adjoining states of Arkansas, Missouri, Kansas, Colorado, New Mexico, or Texas, leaving only about 6% or 160 students, who travel outside this region in pursuit of further education.

Among 290 graduates enrolled in other types of special schools, 82.9% of boys and 40.7% of girls are attending vocational or technical schools. An additional 32.3% of the girls are in business colleges. Much of this type of education is available in our high schools.

Insofar as possible, students should be helped to see the need to prepare themselves while in high school to enter the world of work, and thereby avoid expensive, time-consuming private training at a later date.

As to types of employment, again, as in 1967, clerical jobs occupied two-thirds of the employed girls, with most of the rest in either service or sales occupations. Almost 29% of the boys were employed on semi-skilled jobs, with another 30% doing unskilled work. Most of the remaining boys were employed in clerical, service, or sales positions. Two facts are evident: first is that clerical training in high school offers a girl a very marketable skill, and second is that the 142 boys doing unskilled work could no doubt have profited from a more specialized program of job preparation in high school.

**Conclusions:** Past experience indicates that activities of the 1970 graduates are a very accurate prediction of what current students in these same high schools are likely to do following graduation. It is hoped that, knowing this, each principal and his staff will

seek to make whatever revisions they see as needed in their educational programs. Only if this is done will the considerable effort and expense devoted to this study be justified.

The second phase of the study will seek not only current activities of the graduates,

but their evaluation of the adequacy of their high school educational program. This type of information may be of even greater interest to the personnel working in our nine Tulsa senior high schools.—Dr. Paul I. McCloud.

### D: On Site Program Evaluations

Shown in the following table are percentages, based on averages of schools evaluated the past school year, in a student follow-up. Approximately 20 percent of all programs were evaluated by teams, with input by administrators and instructors. These are se-

lected samples of gross averages in a variety of skill programs. The evaluations were supervised by the State Department's Division of Research Planning and Evaluation, with Ralph Ross as project director.

**Total Graduates and Student Dropout** percentages are based on completion card returns only.

**Available for Placement and Not Available for Employment** percentages and each respective sub-category are based on follow-up card returns only.

	Agriculture	Distributive Ed.	Dental Assistant	Med. Off. Asst.	Child Care	Food Prod., Serv.	Business and Off.	Data Processing	Computer Science	Chem. Tech.
<b>TOTAL GRADUATES</b>	23.9	52.4	96.1	94.4	44.0	44.8	50.4	85.6	81.8	28.6
<b>AVAILABLE FOR PLACEMENT</b>	33.6	41.3	77.8	52.9	51.5	30.4	36.2	53.4	32.3	44.4
Employed/related occupations	72.1	79.6	71.4	73.3	62.8	52.9	68.0	75.5	55.0	25.0
Employed non-related occupations	18.3	14.4	17.9	8.9	20.0	29.4	15.6	19.1	20.0	--
Seeking employment	5.5	3.4	10.7	15.6	8.6	11.8	11.5	4.3	15.0	25.0
Employed part-time	4.1	2.6	--	2.2	8.6	5.9	4.9	1.1	10.0	50.0
<b>NOT AVAILABLE FOR EMPLOYMENT</b>	66.4	58.7	22.2	47.1	48.5	69.6	63.8	46.6	67.7	55.6
Continuing related education	54.2	47.0	25.0	62.5	30.2	25.7	47.7	59.7	28.6	80.0
Continuing non-related education	29.4	27.4	50.0	--	6.1	33.3	25.1	11.0	26.2	--
In armed forces	9.9	6.1	--	--	--	5.1	.5	2.4	11.9	--
Not in labor force	.6	14.7	12.5	22.5	57.6	23.1	19.6	22.0	14.3	20.0
Unknown	5.9	4.8	12.5	15.0	6.1	12.8	7.1	4.9	19.0	--
<b>STUDENT DROPOUT</b>	4.4	7.7	3.9	4.4	12.1	12.3	8.7	5.6	3.9	5.7
Employed/related occupations	10.1	18.9	--	--	9.1	5.3	7.0	6.3	--	--

## E: STATISTICAL DATA (OTIS - STATE PLAN)

1. The overall dropout rate is lowest in Health Occupations Training among the seven major program divisions (12). Highest rate is Home Economics Useful (75). Others: Technical and Trade & Industrial each (58); Vocational Agriculture (55); Distributive Education (36); Business and Office Education (29); Home Economics, Gainful (23).

2. On graduates available for placement the rate is Health Occupations, 79.2%; T&I, 50.2%; Business and Office Education, 47.9%; Distributive Education, 40.6%; Vocational Agriculture, 28.3%; Technical Education, 27.2%; Home Economics, Gainful, 27%.

3. Participation rate of the disadvantaged is highest in T&I, followed by Home Economics, Vocational Agriculture, Health, Office, Technical and Distributive.

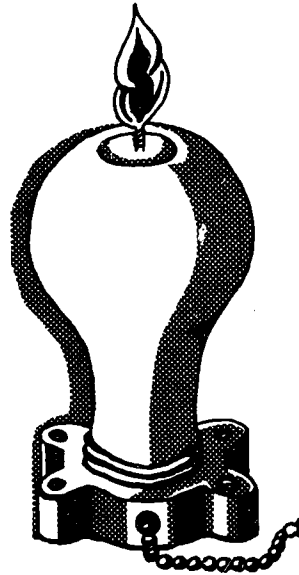
4. There is a negative demand-supply factor for technical graduates. Full time public education provides 42.5% of trained technical manpower supply. The program area in technical

education with the largest oversupply is drafting and design (258 persons) but some lack of jobs for those trained at a higher level might be attributed to lower level trainee from a T&I drafting program, coming in at available entry level jobs.

5. Estimated average cost per student, per year, local and federal, is: Vocational Agriculture, \$142.56; Distributive Education, \$158.28; Health, \$220.98; Home Economics, Useful, \$83.40; Home Economics, Gainful, \$153.47; Office Education, \$217.22; Technical, \$359.68; T&I, \$224.95.

### 6. Funding Distribution:

	Federal	State	Local
Regular Programs	\$5,125,000	\$5,396,681	\$16,474,319
Special and Categorical	1,983,000		5,091,000
Total	\$7,108,000	\$5,396,681	\$21,565,319
Grand Total:	\$34,070,000		



***"It is better to light a candle  
than to curse the darkness"***

**52 COURSES OFFERED**

**AIR CONDITIONING AND REFRIGERATION  
AUTOMOTIVE**

Auto Mechanics  
Auto Body  
Auto Machinist  
Auto Parts  
Auto Trim  
Service Station Attendant  
Service Station Operation  
**BUILDING TRADES**  
Building Construction  
Concrete and Pipefitting  
Plumbing

**BUSINESS EDUCATION**  
Accounting  
Bookkeeping  
Business Data Processing  
Clerk-Typist  
Key punch Operator  
Management and Marketing  
Management  
Secretarial  
Legal Secretary  
Medical Secretary  
Stenographic  
**COMMERCIAL ART**  
Art for Reproduction  
Commercial Art



**MACHINIST**  
Automotive Machinist  
Industrial Machinist  
Numerical Control Machinist  
**MARINE AND SMALL ENGINE MECHANICS**  
Marine Mechanics  
**PRINTING**  
Letterpress  
Lithography  
Machine Composition  
Machine Perfector  
**WATCH AND MICRO-INSTRUMENT REPAIR**

**DIESEL AND HEAVY EQUIPMENT MECHANICS**  
Diesel and Heavy Equipment Mechanics  
Farm Tractor and Machinery Mechanics  
Diesel Fuel Injection  
**DRAFTING AND DESIGN**  
Industrial Drafting  
Technical Drafting and Design  
**DRYCLEANING**

**ELECTRONICS AND ELECTRICITY**

Electrical Maintenance  
Electro-Mechanical  
Industrial Electronics  
Industrial Electrical Maintenance  
Industrial Instrumentation  
Television Electronics

**FOOD SERVICES**

Baking  
Culinary Arts

**FURNITURE UPHOLSTERY**

**LEATHERCRAFT INDUSTRY**

Bootmaking  
Saddlemaking  
Shoe, Boot and Saddle Repair  
Shoe Repair