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ABSTRACT

This handbook is designed to serve as a reference for teachers, supervisors, and administrators to use in organizing and implementing vocational agriculture/agribusiness programs for high school students and out-of-school youth in urban areas. Information in the handbook is divided into the following eight primary areas: (1) planning for program initiation, (2) administration, (3) vocational instruction, (4) staffing, (5) equipment and facilities, (6) outreach/recruitment, (7) student placement, and (8) community involvement. Each section includes a basic definition of what is intended by the term, identification of some of the unique issues and needs in the area, goals and objectives to be accomplished by the area, alternative practices with advantages and disadvantages of each, and possible resource requirements for the area. Two additional sections contain a listing of the technical advisory group membership and synopses of nine case studies. (MN)

HANDBOOK FOR IMPLEMENTING IMPROVED VOCATIONAL AGRICULTURE/AGRIBUSINESS PROGRAMS IN URBAN AREAS

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INTRODUCTION

The plight of American cities is the result of converging social forces. As advancements in technology pushed farm dwellers citywards and middle-class city residents exited to suburban areas in ever-increasing numbers, the composition of urban populations in the United States underwent a dramatic transition. From 1950 to 1973, the percentage of whites residing inside central cities fell from 35 percent to 26 percent of the population in those areas, whereas the percentage of blacks in central cities rose from 44 percent to 60 percent (Gorham & Glazer, p. 162). During the same period, cities found themselves increasingly confronted by the twin nemeses of rising inflation and chronic economic stagnation--a condition referred to by economists as *stagflation*.

Changing demographic composition and persistent stagflation are at the base of the urban predicament. During the period 1970-74, average family income of in-migrants to urban areas was $12,864, as compared with $14,169 for out-migrants (Barabba, p. 55). The effect illustrated by these statistics has been to transport poverty to the city. By a gradual replacement of the more with the less fortunate, the pool of urban residents has come to include a disparate number of low income residents. Their low income is in large part due to lack of formal education and marketable skills. The problem is further compounded by lack of incentives for high wage industries to invest in concentrated urban areas—a situation which has contributed to a decrease in the number of employment opportunities.

As a result, the urban cities and their residents have become entrapped in a cycle of poverty that, once started, is difficult to reverse. Low income prevents purchase and maintenance of adequate housing. Households become massed together with resultant socioeconomic segregation. Deteriorating living conditions contribute to criminal activity as residents seek to survive through means which often are illegal. Decreasing property values reduce the tax base and inhibit the financial capability of the city to provide needed services.

Although dismal, the plight of American cities is not irreversible. The hope lies in the ability of society to assimilate the urban disadvantaged into the economic and cultural mainstream. The extent of their assimilation will depend upon the health of our economy and the degree to which the disadvantaged are prepared both psychologically and technically to assume a productive work role.

The development of the urban human potential is the greatest challenge facing vocational education today. Of all needing to be served, the challenge is nowhere greater than for urban youth. The national unemployment rates for youth are 13.6 percent for white and 31.5 percent for black teenagers. Since nearly one out of every two poor central city residents is black, the needs in the city are critical. As Gene Bottoms, Executive Director of the American Vocational Association states:

> The need for investment in the nation's programs of vocational education grows greater by the day. To begin with, the nation is faced with the fact that those youth who have the most difficulty in moving from school to work are increasing as a proportion of the total school age population. The overall number of school age youth has declined 11 percent since 1970, and it is projected to fall another 11 percent during the next decade. Yet the number of black teenagers will remain constant over the next decade. Many of these black youth will need specialized services and support to move successfully from school to employment. (Voc Ed, March 1979, p. 8)

AGRICULTURE AND THE URBAN CHALLENGE

Vocational agriculture has historically been at the heart of the vocational movement. The vocational agriculture teacher outstationed in rural areas has been a significant force in improving the quality of rural life through increased productivity while at the same time protecting and preserving the rural heritage. In recognition of its pervasive role in the total economic production and distribution system and in keeping within its character to be progressive in nature, agriculture has extended its boundaries to include agribusiness. As defined by a recent study,

> Agriculture and agribusiness education efforts at all levels of instruction . . . are concerned with the total agricultural situation in the United States and the world. Such education should not be limited to the development of specific skills and technical knowledge. This means that somewhere in the program, three functions must be performed. First, there is the function of educating individuals for employment in the field of agriculture and agribusiness. . . . Secondly, there is a need at all educational levels for avocational agriculture coursework so that other students and adults may take courses of interest to them. Thirdly, in view of the crucial importance of food, it is essential that insofar as the resources permit, instruction be given in the significance of agriculture, food, and food production . . . (Iowa State University, Department of Agricultural Education, p. 71).

Given as its scope the 'total agriculture situation,' inclusion of the urban setting would seem a logical, indeed, a necessary extension. Many cities have an extensive agribusiness industrial sector generating employment opportunities requiring agricultural skills and technical knowledge. Urban revitalization efforts have fostered an enhanced concern for urban ecology and the parks and open space as a means of combating urban blight. The trend toward more leisure time and apartment/condominium townhouse living will continue to contribute to an increased opportunity for persons equipped with agriculture-related job skills to satisfy leisure-induced job opportunities.

In recognition of the expanding role of agriculture in the Nation's economy, a National Committee on Employment Opportunities and Training Needs in Agribusiness was formed and charged with the responsibility of determining the size and composition of the agribusiness occupational sector.

After six years of pioneering effort, the Committee produced an eleven volume series documenting the employment in agriculture and agribusiness occupations. (Employment in Agricultural and Agribusiness Occupations, U. S. Department of Agriculture, Economics Research Service publication ERS-570-580 Washington, D. C. 1974). One hundred thirty-nine occupations were identified in which at least some of those employed required or utilized agribusiness competencies. Of these, eighteen occupations were identified as requiring agribusiness competencies in any industry in which the occupations were found. Fifty-four occupations were determined to require agribusiness competencies in selected industries and sixty-seven occupations were identified in which some portion of those employed required agribusiness competencies. Occupations were classified as requiring agribusiness competencies if they required skills and knowledge of: 1) the production of plants, animals and their products; 2) production processing, distribution and use of consumable supplies in agriculture production; 3) power, machinery, tools equipment, structure and convenience utilized in agricultural production; 4) processing and marketing of agricultural products; 5) culture of ornamental plants; 6) conservation, propagation improvement and utilization of renewable natural resources; 7) multiple use of forest lands and resources.

Of the occupations identified by the Committee, a number would be expected to occur in urban settings. Examples include:

- Agriculture laboratory assistant technician
- Animal breeding technician
- Bird raiser
- Dairy tester
- Florist
- Flower gardener
- Fruit tester
- Seed specialist
- Dairy equipment installer
- Nursery worker
- Agriculture equipment machanic
- Plant propagator
- Meat specialist
- Food service technician
- Animal caretaker
- Horse trainer
- Animal warden
- Farm products buyer
- Veterinary assistant technician
- Agriculture products inspector
- Animal beautician (groomer)
- Game keeper
- Food buyer broker
- Kennel manager
- Landscape contractor
- Zoo keeper
- Agricultural products sales person
- Grounds caretaker
- Blacksmith
- Tree expert
- Meat cutter
- Greenhouse worker
- Greenskeeper
- Landscape gardener
- Grounds maintenance worker
- Park keeper
- Weed controller

The Department of Labor in a recent publication reported over 2000 job bank openings for groundskeeper, nearly 2000 for landscape laborer, and approximately 1100 for horticultural worker. Eight urban areas reported a significant number of openings for groundskeeper; eight for landscape laborer and seven for horticultural worker. (Occupations in Demand, U. S. Department of Labor, April 1979). The fact that these and scores of other occupations require agriculture/agribusiness competencies supports the contention that, contrary to what some believe, there is a need for agriculture beyond that of on-farm production—a role that can and should be meaningfully extended to urban areas.

THE PROBLEM

Considering the need for agriculture-agribusiness job skills, the generic problem to which this *Handbook* is addressed is the relative absence of agriculture-agribusiness programs in urban settings. Lack of awareness of the potential of vocational agriculture in meeting the urban challenge is a contributing factor in impeding the implementation of improved agriculture-agribusiness programs in secondary city schools and urban education centers. However, lack of awareness is but one of a host of specific problems which will have to be addressed. Since there is not an established tradition of urban agriculture, recruitment will pose special difficulties. Outreach activities will have to be designed to improve access of special populations to urban agriculture programs. Traditionally low enrollments of women will have to be overcome. Another problem will be the preparation of rural-oriented teachers for new roles in an urban setting to deal with urban populations. In that most agriculture programs have historically been concentrated in rural areas where instructional staff are usually not covered by collective bargaining, this crucial area must be addressed. Identification and development of work stations will pose new challenges to be dealt with by those attempting to initiate agriculture programs in urban areas. Guidance and counseling services will be of even greater importance as urban agriculture attempts to serve increasing numbers of those heretofore not exposed to agricultural programs.

With that background and other information in mind, the then Bureau of Occupational and Adult Education of the U. S. Office of Education, DHEW (as of May 1980 the Office of Vocational and Adult Education of the Department of Education) determined that one strategy that would help to alleviate urban economic and related employment problems would be to develop guidelines for implementing improved vocational agriculture/agri-business programs in urban areas. It was felt that if more appropriate employment training programs were available to students, their employment status, as well as the welfare of the urban area and some of the trained manpower needs of business and industry would be met. Subsequently, work was initiated to develop the needed guidelines, and CONSERVA, Inc., was awarded a contract to complete the necessary work.

METHODOLOGY

CONSERVA developed a six-pronged approach to guide the work of the project. First, an extensive review of the literature was conducted and a state-of-the-art paper was developed to help guide the work of those individuals involved with the project. Second, a twenty-five member technical advisory group (TAG) was identified and convened to help develop criteria to be used to identify exemplary vocational agriculture/agribusiness programs in urban areas. For purposes of the project, an urban area was considered to be a governmental area with a population of 50,000 or more. Third, nominations of exemplary programs were sought from vocational agriculture and vocational education leaders across the country. Fourth, using the criteria established earlier, nine exemplary sites were identified for on-site visits. Fifth, in-depth, on-site visits of the selected programs were conducted. And sixth, all the information gathered from the previous five efforts was used as a basis for

developing the guidelines contained in this publication. After the guidelines were developed, extensive reviews were conducted to assure accuracy and appropriateness of the guidelines.

Since a critical need for the conduct of the project existed, one might conclude that in fact, high quality programs of vocational agriculture/agribusiness did not exist in urban areas, particularly programs that addressed the unique and difficult conditions in those urban areas. That is actually what project staff found. Although no single program was identified that truly exhibited exemplary characteristics in all criteria areas, many existing programs were identified that did exemplify certain and specific criteria. Therefore, the guidelines presented in this document are those that have been identified in operating programs as well as those considered to be most effective and efficient as identified by the literature in the field and expert opinion.

PURPOSE OF THE HANDBOOK

The *Handbook* is designed to serve as a reference for teachers, supervisors and administrators to use in organizing and implementing vocational agriculture/agribusiness programs for high school students and out-of-school youth in urban areas. The *Handbook* is not designed to outline specific curricula to be offered but is focused on processes and procedures which have been found to be useful in planning and implementing programs in urban areas.

RELATIONSHIP TO STANDARDS FOR QUALITY

This *Handbook* is closely related to the "Standards for Quality Vocational Programs in Agricultural/Agribusiness Education," developed by the Agricultural Education Department at Iowa State University under a grant funded through EPDA, Part F, Section 553. This *Handbook* is related in the sense that many of the standards developed in that project were used to develop criteria to identify exemplary vocational agriculture/agribusiness programs in urban areas. Second, several of the general categories of standards formed the general basis for sections of this *Handbook*. Finally, it is expected that programs planned and implemented as a result of using ideas from this *Handbook* would measure up favorably to the standards set forth for quality programs.

ORGANIZATION AND USE OF THE HANDBOOK

The *Handbook* is divided into several sections that may individually or collectively assist teachers, supervisors or administrators to identify specific alternatives in various areas related to the planning and implementation of programs. The information is divided into the following eight primary areas: 1) Planning for Program Initiation; 2) Administration; 3) Vocational Instruction; 4) Staffing; 5) Equipment and Facilities; 6) Outreach/Recruitment; 7) Student Placement, and 8) Community Involvement. Each section includes a basic definition of what is intended by the term, identification of some of the unique issues and needs in the area, goals and objectives to be accomplished by the area, alternative practices with advantages and disadvantages of each and possible resource requirements for the area. There was no intent to identify any

specific or single overall model to be used nationwide. The intent was to describe alternatives that appeared to work in various locations, and permit the individual to pick and choose from among several alternatives those that would appear to work best in his/her unique setting.

Further, no attempt was made to prepare an exhaustive list of alternative practices for each section. Rather, a sample listing of many different possible alternatives is suggested for reference and as a point of departure.

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PLANNING FOR PROGRAM INITIATION

The need for and importance of planning in vocational education have become critical in the past few years and most certainly the trend will continue throughout the 1980's and 1990's. United States and world economic conditions, changing demographics, the world energy situation, demands for changes in tax programs, increasing dissatisfaction with educational and vocational delivery systems and other factors all affect planning and relevance of training programs. The 1976 federal legislation in vocational education (PL 94-482) placed considerable emphasis on planning evaluation, and accountability. By design then, vocational education programs must be developed as a result of sound planning.

Several different planning systems exist for use by vocational educators and others. In some states, most planning is initiated and completed at the state level. In other states, most planning is accomplished at the local level. In any event, the planning should be done in harmony with state and/or local policies. In the absence of such policies, local educators may choose to use any of several different planning models that have been developed. Some people prefer to call the whole planning process simply a "needs assessment."

PLANNING FOR URBAN AGRICULTURE/ AGRIBUSINESS

Planning for urban programs in vocational agriculture/agribusiness should yield the answers to such questions as:

1. Who should be served? (Including how many)
2. What should be taught?
3. What delivery system should be used?
4. What needs of business and industry should be met?
5. How will the program contribute to the goals of the school?

There are many additional questions that will be answered in a needs assessment and/or through the planning process, but it is important that these basic questions not be overlooked. In addition to answering the Who? What? Where? When? and How? types of issues, the planning process has the opportunity to accomplish much more for a program of vocational agriculture/ agribusiness.

For example the planning process should:

1. Involve community business and industry leaders and potential employers.
2. Operationalize advisory committees
3. Gain involvement of CBO's (community based organizations) and other employment training delivery systems such as CETA and postsecondary institutions.
4. Initiate parent involvement in planning programs.
5. Provide initial public awareness to help in the outreach recruitment efforts.

This total process should utilize employer surveys, parent and student attitude and interest surveys, economic and employment trend analysis and other related information.

All successful programs have one thing in common. That is—the total program is based upon sound planning. Planning is mandated by law, has proven to be the key component of successful programs, and is a prerequisite to implementing improved vocational agriculture/agribusiness programs in urban areas.

Teachers, local administrators, supervisors and others interested in implementing vocational agriculture/agribusiness programs in urban areas should consult the state supervisor of agricultural education in their respective State Departments of Education, to determine specific state policies for planning and implementation of programs. This is true whether the program is being planned for the secondary, postsecondary or adult level.

KEY CONSIDERATIONS

The process should allow representatives of local, area and state education agencies to participate in planning the program of instruction. In developing the program of instruction, input and articulation should be sought from the following groups:

- Community-based agencies and groups such as:
  - Urban League
  - Community Action Agencies
  - Opportunities Industrialization centers (OIC)
  - SER/Jobs for Progress, Inc.
  - Parents and students
- Government-based groups such as:
  - CETA Prime Sponsors
  - Employment Security Commissions
  - Area Manpower Planning Councils
- Business and industrial agencies such as:
  - Private Industry Councils (PIC)
  - Vocational Advisory Committees
  - Chambers of Commerce

- Educational agencies and personnel such as:
  - Teachers
  - Counselors
  - Administrators
  - Parent and/or student councils
  - Private and/or parochial schools
  - Postsecondary schools and/or agencies

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ADMINISTRATION

DEFINITION AND FUNCTIONS

For purposes of this *Handbook*, the term "administration" refers to the organization and operation of a program with specific reference to lines of authority and responsibility for the program. The definition that is used is less important than the functions to be performed by administrators. In implementing improved vocational agriculture/agribusiness programs in urban areas, it is important that the following administrative functions be provided for:

1. The vocational agriculture/agribusiness program should be included as an integral part of the local district plan for vocational education (both secondary and postsecondary levels).
2. Job descriptions are written and on file for all department staff members.
3. The instructional program is supported by an annual board-approved budget that considers program needs and the number of students enrolled.
4. The vocational agriculture/agribusiness program is designed to serve all populations including special needs populations, private and parochial school students and secondary, postsecondary and adult students.
5. Annual evaluation of the program along with revisions and updating of curriculum offerings are made where needed.

The above listed functions are the minimum necessary and must be supplemented by other functions commonly included, such as providing for necessary guidance and support services, making transportation available for field trips and laboratory experiences, and similar administrative functions.

ISSUES AND NEEDS

While these are certain issues that are common to all educational programs, there are some issues that manifest themselves primarily in urban areas. Some common problems relate to energy, productivity, unemployment and civil rights.

When compared to suburban and/or rural areas where vocational agriculture programs have existed for a number of years, there can be special

problems encountered in the cities that may be intensified by the location of programs in urban areas. Some of those issues and needs are:

- Economic basis
- Equal access to all programs by all people
- Coordination with a number of different programs and/or facilities in the same system
- Difficulty in locating on-the-job training sites for students
- Teacher unions
- Space and cost of space for facilities
- Facility and student security
- The need for bilingual instruction

A number of these issues and needs are more related to magnitude or degree than to existence, since it is fully recognized that any or several of these issues may also manifest themselves in different ways in suburban or rural areas.

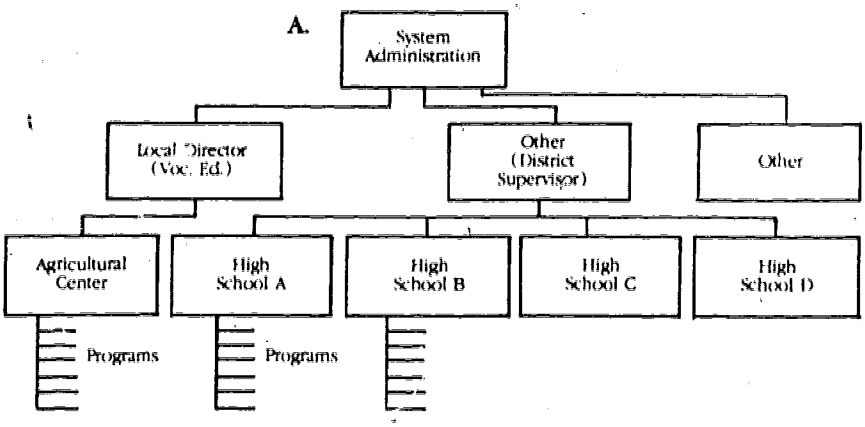
GOALS AND OBJECTIVES

The goals and objectives of the administration of vocational agriculture/agribusiness programs in urban areas should focus not only upon individual student needs (*all* administration should focus upon that), but also focus upon those issues and needs that are unique to the urban area. The lack of understanding of the nature of vocational agriculture/agribusiness in urban areas bears out the fact that the administrative organization must be designed to insure that the agriculture programs plan and assume a role equally as important as that of other programs.

ALTERNATIVE PRACTICES

The basic nature of the topic of administration suggests that organizational charts be developed. Therefore, some alternative organizational practices are displayed as examples.

A.



In this schematic of an organizational unit, the Agricultural Center is a separate unit with the chief operating officer of the facility being considered a

principal. The principal in this case reports directly to the local director of vocational education. Other vocational programs which are located in the other high school facilities report through the principal who, in turn, reports to an area supervisor and then to the top administrative level. The Agricultural Center in this case must recruit students from each of the other schools. Only agriculture programs are offered at the Agricultural Center.

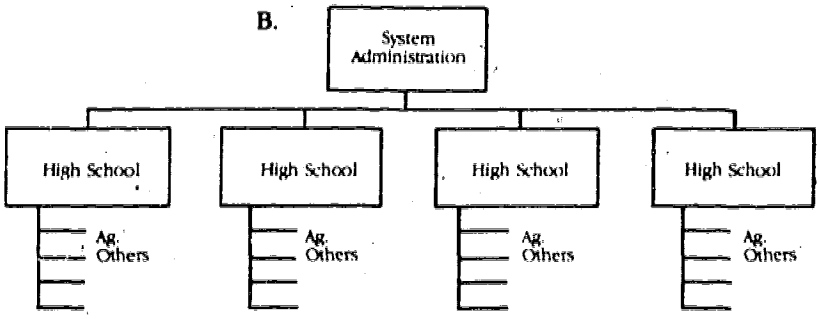
ADVANTAGES

1. More direct and closer ties to top administration
2. All teacher responsibilities limited to agriculture facility
3. Easier to develop specific and special programs
4. May be easier to find space for agriculture program only, if space is not reserved for athletic fields, etc.
5. Easier to control and be responsible for facility and maintenance
6. Gives students a "change of scenery" during the day
7. Draws from large student base which permits broader course offerings
8. Non-duplication of specialized facilities

DISADVANTAGES

1. Harder to recruit students for blocks of time
2. All day field trips cause more administrative work
3. Youth organization meeting and activities harder to schedule
4. All support help (i.e., caretakers, janitors) charged directly to the program
5. Separate building complex more expensive
6. Transportation of students often causes scheduling problems
7. Instructors out of the "mainstream" of the rest of the educational program

B.



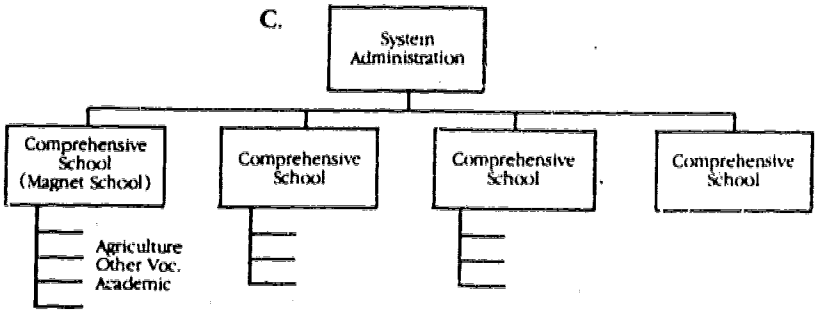
ADVANTAGES

1. Smaller programs often permit more individual student contact and attention
2. Systemwide scheduling not a problem
3. Youth organization can have home school identity
4. Recruitment limited to smaller area
5. Easier to obtain local community involvement
6. Instructors and students have more contact with other school activities
7. Transportation of students is not a problem

DISADVANTAGES

1. Systemwide planning and coordination of agriculture programs more difficult
2. More duplication of facilities and equipment
3. Program offerings may be more limited for individual students
4. Highly specialized programs may not have enough student base to draw from
5. Program quality has more opportunity for variance

C.



ADVANTAGES

1. Caretaker and janitorial services may be part of the total school program
2. Facility security is not as much of a problem
3. May be easier to make more students aware of potential careers in agriculture
4. Easier to integrate remedial programs with the agriculture program at less cost
5. Keeps instructors associated with other academic teachers
6. Non-duplication of expensive facilities and equipment

DISADVANTAGES

1. Have to recruit students from other schools
2. Administrator and other teacher concerns about program getting too big in one school
3. Prohibits program accessibility to all students (recent busing orders may prohibit students from going to the school if they want to)
4. Usually limits the amount of space and location to that of existing school
5. Usually prohibits the total separate accountability of program funds
6. Programmatic decisions often influenced by non-agriculturally oriented administrators

Although all advantages and disadvantages have not been identified for each of the three structures, it is evident that each one has its place. Further, variations from each can, do, and should exist to meet the needs of the local situation. Finally, other administrative arrangements also can and do exist, that may be appropriate for specific situations.

RESOURCE REQUIREMENTS

Resource requirements will vary with the magnitude and focus of the program as well as its geographic location. In planning for resource requirements, one must consider costs for administration and supervision, site location, duplication of facilities and equipment, purchase, lease, rent and borrowing options of equipment, instructional staff personnel, support personnel costs and program operational costs. Further, one must consider student and personnel time costs as well as those of energy (transportation) when deciding upon an administrative and organizational structure. Changes in population demographics necessitate the careful consideration of administrative and organizational structure in order to insure maximum utilization of facilities, equipment and instructional staff. The administrative structure selected also affects the resources needed for planning, organizing and conducting advisory committee meetings.

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VOCATIONAL INSTRUCTION

DEFINITION

Vocational instruction includes classroom and laboratory experiences, large and small group lectures and discussions, on-the-job training programs, cooperative training, individual self-paced instruction, field trips, student organization (e.g., Future Farmers of America) contests and leadership development activities, and various other strategies and techniques. According to one dictionary, instruction is, "The art, practice, or profession of instructing; education." In order to obtain a common understanding, vocational instruction as used in this publication refers to those processes, techniques, and strategies employed by the instructor in the teaching-learning process in vocational education.

ISSUES AND NEEDS

Issues and needs in the area of vocational instruction include the level of competency development required for various career opportunities, relative quality of the learning experience resulting from various approaches, the need to accommodate a wide range of individual student capabilities in specific classes and relevancy of learning experiences. Other issues relate to scheduling of programs and activities, use of criterion-referenced measures, mainstreaming of special needs students, modular, self-paced, or individualized instruction, provision of adequate learning resources and a host of other techniques and processes.

In developing an exemplary program of vocational instruction, the primary issue with which the designer should be concerned is that of providing the most effective and efficient learning program possible for the clientele to be served. In any given program or classroom, there may be need for a variety of processes, techniques, materials or approaches.

GOALS AND OBJECTIVES

Although goals may be stated in a variety of ways and with differing degrees of specificity, the goal of vocational agriculture/agribusiness education programs in urban areas is to prepare individuals for jobs and advancement in agriculture/agribusiness careers. Without debating all the issues and philosophical foundations, that goal also must consider job competency requirements, the specific personnel requirements (number and types) of

business and industry, specific needs, interests, and capabilities of clientele to be served (including minorities, disadvantaged and handicapped individuals, sex role stereotypes, and out-of-school youth), as well as the overall goals of education and society. Further, the goal of urban agriculture programs should consider new and changing occupations and competency requirements, energy related considerations, and new instructional technology.

ALTERNATIVE PRACTICES

Textbooks, handbooks, pamphlets, research reports and guidelines have been developed around most instructional approaches, including those used in the vocational agriculture/agribusiness field. Rather than to expand on the advantages and disadvantages of any or all potential instructional approaches, some specific techniques or activities that have been successful in programs operating in urban areas will be identified. Some exemplary components or practices include:

- Establishment of agriculture section in school library — This practice is of particular value in urban areas where many potential students may otherwise have no exposure to agriculture materials and information. The practice makes agriculture materials available to agricultural students, those studying related areas, those looking for materials for theme papers or compositions, and those who may just be browsing. In addition, this puts the topic of agriculture more in the mainstream of the rest of the educational program, permits agriculture students to study and research in the field of agriculture without removing them from the mainstream of education and helps develop a rationale for agriculture resources and materials to be purchased through library funds rather than out of the subject area budget.
- Use of business and industry facilities for instruction — Arrangements to provide agricultural instruction in facilities owned and operated by business and industry as well as government is a practice that can be of benefit in several ways. This practice is not to be confused with the often used field trip practice. A field trip may involve observations for a single instructional period or a day in length. The proposed practice involves use of facilities for longer periods of time for instructional and hands-on experience purposes. For example, arrangements may be made to use a slaughterhouse and its support facilities for a number of instructional areas. Municipal zoos and parks and recreation areas may be available for instruction on the topics of small animal feeding and care or for landscape design, construction or maintenance.

This practice is of particular value for new and changing occupational areas. The practice has many benefits in terms of reducing the cost of facilities and equipment to the school (even if a small rental fee has to be paid), providing real life working conditions, environments and equipment for student use,

involving the community in the program and permitting a more flexible program offering since a large capital outlay is not needed to initiate or refocus a program. In using business or industry facilities, however, sanitation, OSHA and insurance rules, regulations and requirements must receive special attention.

Among the disadvantages of this practice are the scheduling of use of facilities during the most appropriate instructional period (timeliness), physical location and distances and transportation of students.

- Student incentives — The idea of student incentives obviously is not new, and many different approaches to student incentives are successful. On the other hand, the need for various student incentives may be more critical in urban programs, primarily because of the environment. Since students may not have supervised farming programs, or space to conduct projects at home, the agriculture program should provide the opportunity for students to gain various experiences. One option often used is for the school to provide facilities to permit students to raise crops or animals, pay for costs related to the project (often including supplies and rental of buildings or land), and retain profits after expenses have been deducted. Other types of incentives that may be used include provision of awards, scholarships or recognition for achievement by garden clubs, machinery dealers, nursery associations or other groups in agribusiness.

- Student care of wildlife — Although not specifically unique to urban areas, establishment of a facility to provide for injured or homeless wild animals is one way to provide experiences for students. State game laws and regulations are important to observe in this area, and special permits often must be obtained to permit this type of activity. Working with fish and game personnel, hunting and fishing organizations and law enforcement agencies on this activity not only provides valuable experiences for students, but also improves and develops community relations.

- Programs for handicapped individuals — A program would not be meeting the needs of clientele in the community if special considerations were not given to the needs of handicapped individuals. Current practice favors the concept of "mainstreaming" of handicapped individuals. That practice necessitates special considerations for equipment and safety, instructional materials, and supervision. In addition to providing for "mainstreaming" of handicapped students, special opportunities may be provided for other teachers to utilize the agriculture facilities when they are not in use by the agriculture teachers. In addition, special programs and/or courses may be developed to meet the specific learning needs of handicapped individuals.

- Competency testing for placement — Since many students may not have the opportunity to observe and/or participate in

agriculture/agribusiness activities during their leisure time, during after-school work, as part of home responsibilities or just casually, it may be necessary to administer competency tests to students before placement in various educational programs or on-the-job work training sites. The competency testing concept can also be useful in assisting with placement after the student has completed a program.

Additional components of an exemplary instructional program include:

- The instructional program is well-balanced:
  - The instruction consists of a proper balance of class time, laboratory experience, field trips, and other occupational experience.
  - Appropriate science, mathematics, oral and written communications, and social science courses are available to students enrolled in the vocational agriculture/agribusiness program.
  - Programs are articulated with related agriculture/agribusiness programs in secondary, postsecondary and four-year institutions of higher education.
  - The program serves as a student teaching site for prospective teachers.
- Teachers have written courses of study designed for the development of student competence in specific needed occupational areas:
  - Provisions are made to accommodate handicapped and special needs students.
  - Teachers have received up-to-date in-service education.
  - Teachers have modified or adjusted their instruction to provide for special education needs.
  - Teachers are involved with the preparation of individual educational plans for special students.
- Supplies and materials are available for instructional purposes:
  - Funds are available to purchase adequate consumable supplies and materials.
  - Adequate instructional resources are available to meet the needs of advantaged and disadvantaged students.
  - Community resources are utilized in the instructional program.

RESOURCE REQUIREMENTS

New career areas, updated technical information, new and developing curriculum and instructional materials, and rapidly changing technology in the field contribute to resource requirements of vocational instruction. Inherently, consumable supplies costs of instruction are related to the number of students in the program. Further, some of the instructional costs are attributable solely to the agriculture program. On the other hand, some costs may be borne by the total school program, such as books and reference materials that may be

considered part of the library and/or learning resource center and which are available to all students.

Audiovisual equipment may be shared with other vocational or academic program areas, which affects the cost attributable to the agricultural program (school policy plays a major role in this area). Library and/or learning resource center support personnel and related school policy also affect resource requirements for vocational instruction.

5

STAFFING

DEFINITION

For purposes of this *Handbook*, staffing refers to the provision of qualified instructional and support personnel for the vocational agriculture/agribusiness program.

ISSUES AND NEEDS

In developing the staffing for a vocational agriculture/agribusiness program in urban areas, several issues must be considered. Although the philosophical sides of the issues of certification requirements and technical and pedagogical competence are the same whether one is developing programs for the rural or urban setting, the operational side may cause other concerns. Many of the newer and changing occupations that are agriculturally related often develop in the urban areas first and may call for staff qualified in certain areas for which certification requirements are not yet developed. Pedagogical requirements which necessitate the ability to work with students from vastly different social backgrounds and environments are more critical in urban areas (ability to comprehend urban street language is important), utilizing differentiated staffing patterns, assuring adequate custodial and other support staff, and teacher unions are other issues to be considered.

GOALS AND OBJECTIVES

The goals and objectives of staffing for urban programs should be to maximize the use of both fiscal and human resources and to assure that appropriate technical and pedagogical competence is provided to meet the needs of individual students. Further, the staffing plan should provide opportunities for the staff to remain updated in terms of technical and pedagogical competencies as well as affording opportunities to develop expertise in new and/or changing areas.

ALTERNATIVE PRACTICES

Different practices have been identified which were considered successful in specific situations. Even in a one-teacher program, some practices can be implemented to improve the quality of the overall program.

PRACTICE

A. One teacher teaches all courses in a subject area

ADVANTAGES

1. Teacher has an opportunity to develop in-depth subject knowledge
2. Provides continuity from one level to the next and eliminates potential duplication in courses in the same sequence
3. Easier for one teacher to work closely with advisory committee in the area
4. Easier to schedule and articulate all activities in the same area
5. May be easier to develop rapport with students
6. Program accountability is easier

DISADVANTAGES

1. Harder to move teachers to new subject areas should occupational demand for that area decrease
2. Students in the subject area have contact with limited number of teachers
3. Success of the program in the subject area may depend upon competence and personality of only one teacher
4. Seasonal work loads and student experiences may be too much for one teacher to handle adequately
5. May not be able to find teacher certified in a specific area

PRACTICE

B. One teacher responsible for students in specific grade (or level)

ADVANTAGES

1. Teacher becomes more familiar with problems of students in a specific grade or age level
2. Recruitment efforts may be enhanced as teacher may be able to focus efforts more sharply
3. Teacher usually develops competencies in more than one subject area

DISADVANTAGES

1. Not as much continuity from one grade to the next
2. Program accountability is more difficult
3. More chance for duplication of course content from one level to the next
4. Doesn't always utilize the full range and depth of competency of a teacher

PRACTICE

C. Differentiated staffing approach (Master teacher with technicians)

ADVANTAGES

1. Reduces total cost of operating program
2. Permits hiring of personnel with specific competencies needed
3. May prevent highly paid personnel from performing tasks that can be done by those at a lower salary level
4. Permits maximum utilization of personnel with specialized skills
5. May be easier to shift program content and emphasis

DISADVANTAGES

1. More difficult to administer
2. May cause concerns among "professional teacher' groups
3. Some staff may not possess the right pedagogical skills
4. May cause problems when scheduling and organizing youth organizations

SUPPORT STAFF. In addition to regular instructional staff, provisions must be made for support staff. Some support staff, as in the case of instructional staff, may serve more than one role. In addition, support staff may not be responsible

(administratively) to the agriculture program, depending upon the administrative structure of the program (See Section II).

Support services that should be provided students include but are not limited to: 1) complete guidance and counseling services including access to computerized occupational information systems and job banks; 2) opportunities for on-the-job learning experiences through OJT programs; 3) CETA work experiences, supervised occupational experience programs, part-time jobs, summer work experience programs, or 4) related types of opportunities. Caretaker services must be provided in order that routine maintenance of learning environments may be of high quality, even though there is no instructional value to be accrued from having students complete those tasks. Further, caretaker services must be provided during weekends, vacation periods, periods when instructors are on professional leave and other periods. Also, in many urban areas, it is necessary to provide access to bilingual instructors and/or interpreters in order to meet adequately the needs of some students.

PROFESSIONAL IMPROVEMENT. Professional improvement activities must be provided to the staff. This includes upgrading the competencies in the technical subject area, opportunities to develop competencies in new areas or areas to be developed, and updating of competencies in pedagogical areas. Provisions for professional improvement may be in the form of sabbatical leaves, intensive short courses provided by colleges or universities, technical courses of programs provided by business or industry, exchange programs with business or industry, or other techniques.

Additional exemplary practices include:

- The program is staffed with qualified and certified personnel:
  - Staff have training and experience in urban areas.
  - Staff are innovative and can make adjustments to keep instructional program updated.
  - Staff are representative of the racial-ethnic population of the community.
  - Staff are able to accommodate limited English proficient students.
- Staff members are innovative and progressive:
  - Staff participate in planned in-service programs.
  - Staff demonstrate a broad understanding of the role of vocational education in society.
  - Staff actively recruit prospective instructional staff representing racial, ethnic and sex equality.
  - Staff demonstrate a sincere interest in the profession.

RESOURCE REQUIREMENTS

Obviously, the resource requirements will vary, depending upon staffing patterns utilized and the magnitude of the total program. In larger programs, differentiated staffing patterns offer the potential of providing more program opportunities at a lower cost. Another factor for consideration is the fact that, as a general rule, costs of living are higher which in turn increases instructional staff costs. History has shown that it is more difficult to recruit teachers for

positions in urban areas than in suburban and rural areas. However, a high quality urban agriculture program with effective student recruitment has a larger student base to draw from, providing potential for maximum class enrollment which would reduce cost per student (this does not suggest that urban programs always have more students per teacher). Resource requirements will be determined by the comprehensiveness of program offerings which will affect the number of classrooms, laboratories, and other equipment needs (see next Section for related discussion).

6

EQUIPMENT AND FACILITIES

DEFINITION

Equipment and facilities refer to those machines, tools, audiovisual machines, etc., land, and buildings used in the instructional program.

ISSUES AND NEEDS

Three factors, relevance of equipment and facilities to the program, investment cost, and safety, interrelate and form the basis for the discussion in this Section.

In the area of investment costs, one can consider and compare costs of outright purchase, lease, rental, borrowing and multiple or cooperative purchase among others.

In terms of safety, issues revolve around OSHA regulations, how much of the curriculum time should be consumed on teaching safe equipment operation, teacher liability and other factors. In addition to cost factors, planners need to consider the safety factors as they relate to each of the procurement practices that may be used.

One of the major considerations in determining the method of procurement to be used is relevancy and length of life of the piece of equipment or facility. As an example, it may be cheaper to lease or rent equipment in high technology areas than to purchase them, because in those areas many new pieces of equipment come on the market before the purchased piece is worn out, and instructors often end up teaching students how to use equipment that is obsolete (even though it may be relatively new). Close contact and working relationships with advisory councils may help alleviate some problems in this area.

Other related issues in general include questions such as whether or not school systems can afford expensive land and buildings within cities, maintenance costs (of machinery, building and land), and flexibility and adaptability for multiple or other use. Security and vandalism is another issue. In some places where protective wiring has been prohibited because of safety laws, decorative hedges of shrubbery with natural thorns have been used and greenhouses with total atmospheric control (no windows) have been used to cut down on glass replacement costs.

GOALS AND OBJECTIVES

Goals and objectives for facilities and equipment should be focused on providing the most realistic work-training situation at reasonable costs and under the safest conditions possible. Other factors to be considered should be equipment and facilities that require a minimum amount of maintenance, flexibility in full-time scheduling and use of equipment and facilities, and cost of updating.

ALTERNATIVE PRACTICES

A number of alternative practices might be considered. For purposes of illustration, equipment and facilities will be considered separately in this part.

EQUIPMENT

PRACTICE

A. Outright Purchase

ADVANTAGES	DISADVANTAGES
1. Maintain total control	1. Initial outlay costs
2. May be less expensive over the life of the equipment	2. May not be able to obtain new models or versions very often
3. No public relations problems if students misuse or damage equipment	3. May be able to obtain only one or two pieces of equipment each year
4. May use maintenance and upkeep as part of the instructional program	4. Maintenance and upkeep may be expensive

PRACTICE

B. Leasing

ADVANTAGES	DISADVANTAGES
1. Smaller initial cash outlay	1. May not be able to lease exactly what is needed
2. Can update equipment more often	2. May have public relations problems
3. Can lease for short periods of time	3. Local policy may prohibit the practice
4. Maintenance costs may be lower	

PRACTICE

C. Borrowing

ADVANTAGES	DISADVANTAGES
1. Usually no costs involved	1. Greater risk of adverse public relations if equipment is damaged by students
2. Often can obtain wide variety of equipment	2. Have to borrow only when available, which may not fit instructional program
3. Often provides many opportunities for teaching maintenance and repair	3. Insurance coverage usually a problem

PRACTICE

D. Cooperative use

ADVANTAGES	DISADVANTAGES
1. Lower per program cost	1. Scheduling use of equipment is more difficult
2. Other advantages of ownership (A above)	2. Accountability for maintenance and repair may cause problems

PRACTICE

E. Donations

ADVANTAGES

1. Usually no initial capital outlay
2. Way of obtaining community involvement
3. May be good equipment on which to teach maintenance and repair

DISADVANTAGES

1. Often equipment is already outdated
2. Sometimes cost to refurbish is greater than new cost

FACILITIES

PRACTICE

A. Free standing campus

ADVANTAGES

1. Identifiable unit and better publicity
2. Accountability of programs and funds is facilitated
3. Easier to schedule rooms and land use
4. May give students a change of scenery and more motivation

DISADVANTAGES

1. Hard to find appropriate space in urban areas
2. Must be more concerned with bordering neighbors, images, concerns, etc.
3. Student identity with home school may be a problem
4. Student transportation
5. Have increased costs for administration, maintenance and security
6. Youth organization participation is difficult

PRACTICE

B. Separate complex as part of a total campus

ADVANTAGES

1. Same as 1, 2, 4 above
2. May be better security than free-standing campus
3. Reduces some student transportation and time costs
4. Students and teachers have more contact with other students and areas of instruction

DISADVANTAGES

1. May not have as much freedom in scheduling use of land and buildings
2. Instructional staff may have to assume some non-program activities

PRACTICE

C. Facilities as an integral part of another building

ADVANTAGES

1. Security is not as much of a problem
2. Much more contact with students and other instructors
3. Recruitment is facilitated
4. Easier to schedule and conduct youth organization meetings
5. Reduces administrative costs of programs
6. Caretaker and maintenance costs may be reduced

DISADVANTAGES

1. Classroom and outdoor space usually limited
2. Layout and access to space may be inadequate

PRACTICE

D. Cooperative use of business or community agency facilities (Includes student-owned facilities and equipment)

ADVANTAGES	DISADVANTAGES
1. Almost no costs involved	1. Scheduling for use can be a problem
2. Provides real work situations	2. Student transportation may cause problems
3. Maintains community involvement	3. Insurance coverage must be of concern
	4. Occasionally must limit number of students served at a given time

For both equipment and facilities, it is clear that many alternatives exist, and any one or a combination of approaches may be best suited for a particular setting. In addition to the alternatives suggested above, it is possible to conduct regular programs without any school land being available to the program. For example, it is possible to develop working relationships with a zoo administration for total instructional programs to be conducted in facilities at the zoo. City or metropolitan parks offer other types of facilities for conducting selected programs; and local businesses and industries and some medical facilities offer still other opportunities. Most simply require sincere dedication and work on the part of the instructional staff or administrators to work out detailed arrangements.

RESOURCE REQUIREMENTS

Resource requirements will vary widely, depending upon the magnitude and focus of the program to be implemented as well as the choice of equipment and facility procurement. It is not inconceivable that a minimum program could be implemented at a total cost of $40,000 per year nor is it inconceivable that it may involve more than $300,000 for start-up costs for some programs.

SPECIAL CAUTION

It should be specifically noted that no program should be implemented with the expectation that it will be inexpensive. The idea that a program can be implemented on a "shirt tail" budget and grow from there is often erroneous. The program implemented should have adequate facilities and equipment, or at least access to them, provided. Further, most state divisions of vocational education have already developed minimum standards for facilities and equipment. The state supervisor of agricultural education should be consulted when developing plans in this area.

7

OUTREACH/RECRUITMENT

DEFINITION

Outreach/recruitment refers to the process of identifying potential students for enrollment in vocational agriculture/agribusiness programs, assisting them in becoming aware of the program and career opportunities, and providing appropriate guidance to individuals in order that they may make wise program and career choices.

ISSUES AND NEEDS

Some of the overall vocational agriculture/agribusiness problems, issues and needs can be aggravated or solved by the outreach/recruitment efforts of schools and/or vocational agriculture programs. Some of the considerations in the outreach/recruitment program include:

- How to make current and prospective students aware of new and changing career opportunities;
- How to organize and provide time and resources for recruitment efforts;
- Who is to be responsible for outreach/recruitment;
- How to provide outreach to out of school youth;
- How to provide information and necessary guidance to special populations such as minorities, the handicapped and the disadvantaged;
- How to avoid sex-role stereotyping in outreach recruitment efforts;
- Are there student selection criteria to be considered (If there are requirements, should students be admitted on a first come, first served basis, should quotas be established, should academic standards be established?)

It is reasonable to assume that outreach/recruitment procedures might vary from year to year and from school to school. In addition, specific techniques may be well-suited for some locations but not at all acceptable in other areas. In the final analysis, the outreach/recruitment program must be tailor-made for each situation.

GOALS AND OBJECTIVES

The overall goal of the outreach/recruitment effort is to ensure a supply of appropriately trained potential employees for business/industry/government while at the same time serving the needs and interests of the population served by the school. In reaching that goal, emphasis should be placed upon offering a balanced program to individuals with a variety of interests and needs who are employable upon completion of the program. The outreach/recruitment program should be designed to ensure racial, ethnic and sex equity as well as career relevancy.

In developing the outreach/recruitment effort, every attempt must be made to inform in-school and out-of-school youth of agricultural career opportunities that exist beyond those stereotyped as farming and ranching. Further, youth should be aware of academic, physical, experience and competency requirements of those careers as well as the number of current and expected job opportunities in the future. Finally, the outreach/recruitment efforts should acquaint potential students with the school's program offerings that will assist them in attaining their career goals.

ALTERNATIVE PRACTICES

Outreach/recruitment programs are highly individualized and determined to a large extent by the practices and policies of local school systems. As a result, some practices that are successful in some locations may not be permissible in other locations. Consequently, it is necessary to pick and choose those practices that are consistent with local policies.

- *SLIDE-TAPE PRESENTATIONS.* Usually inexpensive to develop, slide-tape presentations can be used by teachers, administrators, counselors, civic groups and others to make potential students aware of educational and employment opportunities. This practice can use peers as subjects (with appropriate clearance) and depict close-to-home situations. In addition, slide-tape presentations can easily be duplicated for use by many individuals and can be modified or updated relatively easily.

- *TEACHING IN JUNIOR HIGH SCHOOLS.* Many systems provide some career orientation to junior high school students by organizing quarter, semester or other periods of time for orientation, providing the vocational agriculture personnel an opportunity to interact and become acquainted with a large number of students. This permits the teacher to have individual, one-to-one contact with potential students. This practice also may be effective in urban areas where magnet schools are in operation.

- *DISPLAYS IN DISPLAY AREAS.* An effective technique, passive in nature, is to develop attractive displays in strategic areas throughout school facilities. Similar displays in other public facilities are also effective. Care must be taken to make sure the display is in topnotch shape and current, otherwise students might develop negative attitudes if activities and opportunities appear to be outdated.

- *COMMUNITY BEAUTIFICATION PROGRAMS.* Although community beautification programs would normally be considered part of the instructional program, they can be very important components of outreach/recruitment efforts. Students seen in the process of working on the projects, putting into practice those skills and knowledges learned in the classroom or laboratory, and often being the subject of public relations programs, contribute immensely to outreach/recruitment efforts.

- *CURRENT AND FORMER STUDENTS AS EXAMPLES.* A common practice to assist with outreach/recruitment is to have students who have completed the program serve as resource persons during community fairs, orientation programs, as subjects on slide-tape programs and in other capacities. Most former students are willing to assist in this way and, therefore, serve as "living proof" of the value of the program. Current students provide peer group influences which are often helpful.

- *CLASS VISITS/TOURS BY YOUNGSTERS.* Another technique that has proven successful in many locations has been that of making the agriculture facilities available to teachers in other areas, particularly elementary and middle school teachers, for their class field trips and small projects. Impressions gained by youngsters during field trips to the agriculture facilities often are long lasting and are of much value to the outreach/recruitment effort, particularly in the long range respect.

- *PROVIDING INFORMATION TO GUIDANCE COUNSELORS.* Guidance and counseling personnel receive much criticism for not guiding students into agriculture programs. In addition to providing guidance and counseling personnel with information about agriculture course offerings, it is important to provide them regularly with information about career opportunities in agriculture/agribusiness, success stories of former students, results of follow-up studies, trends and new technology in the field, and postsecondary and university training opportunities in the broad field of agriculture/agribusiness. Further efforts should be made to involve guidance and counseling personnel in the program through serving as members of curriculum revision teams, resource persons for various aspects of the program, as visitors to observe various programs and activities being conducted in other similar ways.

Obviously, a number of other practices could be listed and/or described. However, those discussed above suggest some of the more practical ways of focusing on outreach/recruitment. In developing the overall outreach/recruitment program for agriculture, local teachers and administrators should keep in mind that activities aimed at both long-range and short-range impact should be made part of the effort.

An exemplary outreach/recruitment program will include:

- Planned outreach/recruitment activities focused upon students, educators, parents and other community members.
- Outreach/recruitment activities highlighting special efforts to avoid sex role stereotyping.
- Outreach/recruitment activities focused upon secondary, postsecondary, and adult clientele.
- Former program participants and advisory council members involved with outreach/recruitment activities.
- Career ladders and cluster concepts being utilized in outreach/recruitment activities.
- Planned career awareness activities such as field trips, fairs, "farm on lawn," and career days are integral components of outreach/recruitment activities.
- School guidance and counseling personnel constantly being informed of career opportunities in agriculture/agribusiness areas.

RESOURCE REQUIREMENTS

Any efforts will require resources in one form or another. Most of the resource requirements for outreach/requirement efforts will be human resources. The time of teachers and others is valuable, but must be utilized to accomplish a good outreach/recruitment program. However, with wise planning, much of the effort required in this area may very well be combined with or part of the regular instructional program. The teacher (or administrator) must simply take advantage of the opportunities available, and capitalize on the outreach/recruitment efforts offered in the instructional program. Some fiscal resources are also needed for updating audiovisual materials and related activities.

8

STUDENT PLACEMENT

DEFINITION

Student placement refers to the employment, work or educational status of individuals upon leaving or completing a vocational agriculture/agribusiness program.

ISSUES AND NEEDS

There are a number of issues that become evident when one discusses the area of student placement. Issues relate to definitions, measures, standards, and responsibilities. Issues related to definitions center around whether a job is related or unrelated to training and whether or not that is important. In addition, the question of whether a program participant is successfully placed when he/she pursues additional or advanced training programs has been the subject of much debate. Measures to use in determining placement have not been refined nor is there widespread agreement on the nature of the best measures. Even after some measures are identified, there is seldom much agreement on the standards for those measurements. For example, teachers and administrators in some programs may be satisfied with placing 40 percent of their students in jobs for which they were trained or closely related jobs. Others may not be satisfied unless the placement rate (based on the preceding example) is 80 percent or more.

Finally, there are others who suggest that placement is the responsibility of guidance and counseling personnel or a placement coordinator and that student achievement is more important. Others suggest that the schools have no control over economic conditions, hiring practices or student mobility and should not necessarily be held accountable for individuals once they leave the program. Still others suggest that placement in jobs is related to individual competencies and that if appropriate skills and knowledge are developed, students will not have difficulty in finding employment.

GOALS AND OBJECTIVES

The goals and objectives of student placement are relatively straight forward in that any individual who completes a vocational agriculture/agribusiness program should be able to begin a career in the specific field for which they were trained, whether that career is entered into by finding employment through working for someone else or for themselves or by entering advanced training programs before they enter the work force. It would be inappropriate to

establish national standards for placement rates (i.e., 50 percent employed in area for which trained) because they of necessity must change with geographic location, economic conditions, and individual student interest. However, each individual local program should establish standards which are reasonable and appropriate for local settings.

ALTERNATIVE PRACTICES

Any one or a combination of approaches leading to student placement may be best suited for a given situation. Some of the more effective practices are included below.

PRACTICE

A. Teacher responsible for placement program

ADVANTAGE

1. Keeps teacher aware of employment opportunities
2. Maintains teacher interest in students through initial placement
3. Insures teacher awareness of community

DISADVANTAGES

1. Time consuming on teacher's part
2. Success or failures may depend on teacher, not student

PRACTICE

B. Placement Coordinator responsible for placement

ADVANTAGES

1. May insure more opportunities if one person concentrates on activity
2. Permits long-lasting relationships with employers
3. Allows teachers to concentrate on other aspects of program

DISADVANTAGES

1. Coordinator may not know student strengths and weaknesses as well as teacher
2. Removes teacher from opportunity for interaction with community
3. May add to total costs of program

PRACTICE

C. Use Employment Service

ADVANTAGES

1. Involves other agencies with broader information bases
2. Relieves teacher of some responsibility
3. Insures that students know how to use employment agencies
4. May have job listings in neighboring communities
5. Reduces costs and manpower requirements

DISADVANTAGES

1. Many job vacancies are not listed with employment services
2. Less personal knowledge of students' capabilities
3. Does not encourage entrepreneurship

PRACTICE

D. Use of Guidance and Counseling Personnel

ADVANTAGES	DISADVANTAGES
1. Relieves teacher of some responsibilities	1. Often adds responsibilities to those who may not have adequate time to devote to effort
2. Utilizes expertise of guidance and counseling personnel	2. Guidance and counseling personnel may not always have in-depth knowledge of career opportunities
3. Involves more than one segment of the school program	

PRACTICE

E. Use of Advisory Committees

ADVANTAGES	DISADVANTAGES
1. Often creates job opportunities for students	1. Often does not gain in-depth commitment of those involved
2. Involves community to large degree	2. Inappropriate placements may have major negative effects on program
3. Positive public relations effect	

PRACTICE

F. Use of Current and Former Students

ADVANTAGES

1. Peer group pressure and influence are positive
2. Good placements of former students encourage employers to look to program for employees
3. Inexpensive

Characteristics of an effective student placement and follow-up system as an integral part of the program include:

- Student placement and follow-up records are updated annually.
- A school laboratory is available to assist students develop needed competencies.
- Supervised occupational experience opportunities are maintained to provide appropriate experiences for students.
- Placement information is provided guidance and counseling staff.
- Placement information is used to promote the value of the program.
- Students are being placed in occupations directly related to their training.
- Placement and follow-up data are used to improve the curriculum.

RESOURCE REQUIREMENTS

Resource requirements can be minor or extensive depending on the approach used. Continuous updating of job opportunities and competency requirements might be expensive. Personnel costs could be high if the placement coordinator concept is used.

9

COMMUNITY INVOLVEMENT

DEFINITION

Community involvement refers to the participation of community residents and/or organizations in planning, organizing, instructing, evaluating, or otherwise supporting the vocational agriculture/agribusiness program. Participation may be through direct or indirect means and may be occasional or regular in nature.

ISSUES AND NEEDS

Seldom does one question the need for community involvement in the vocational agriculture/agribusiness programs. Traditionally, agriculture/agribusiness programs have had strong community involvement. In developing strong community involvement in urban areas, some of the issues that should be considered include the following:

- What should be the extent of the involvement and role of advisory committees?
- How do you maintain favorable relationships with residents whose property borders that of the land laboratory?
- What kind of information is needed for your public relations program to maintain positive public attitudes toward the program?
- How do you work with civic organizations to gain moral and financial support?
- Should the community be asked for financial support in addition to paying taxes?
- What effect will the sale of products from class and student projects have on local businesses and community members?
- What specific activities or projects can be included in the instructional program that gain community support
- What problems will result from repair and maintenance work performed on community residents' small machinery and equipment?
- How do you maintain general community support rather than the support of a limited number of individuals?

The need for community involvement cannot be understated, nor can its value be overstated. In periods of decreasing student enrollments, increasing facility, equipment, supplies and personnel costs, civil rights and affirmative action issues, and changing employment pictures, community involvement (or lack of it) can mean the difference between a successful and an unsuccessful program.

GOALS AND OBJECTIVES

The basic goal to be achieved from obtaining community involvement is support in terms of instruction, student placement, opportunities for student work experience, input for program and curriculum planning, student outreach and recruitment assistance and other needs. Further, community involvement is needed in order to have a community better informed of the school's role in the community and a population that is more aware of the contributions of agriculture/agribusiness to the economy of the area.

ALTERNATIVE PRACTICES

Although many practices that are appropriate for rural areas are appropriate for urban areas, there are also some practices that are more often available to urban areas. Mass communication facilities, population densities and the existence of various service organizations present opportunities that may not exist in rural areas.

- Working with garden clubs and other organizations to provide various awards and scholarships for student achievement
- Sales of products of instructional and student activities to dealers and businesses rather than retailing to the public
- Instructional programs designed to beautify and/or improve public areas such as roadsides, median strips, park entrances, mall areas and others
- Providing use of unused school laboratory land to community residents for gardens
- Active use of advisory committees
- Recognition of community members for contributions to the program
- Provision of services to the elderly and/or disadvantaged individuals, as part of the instructional program and/or student projects
- Using volunteers in the instructional program as resource persons or technical assistants or in other roles
- BOAC and Food for America programs

The following characteristics have been found to be of great value in implementing improved vocational agriculture/agribusiness programs:

- A vocational agriculture/agribusiness advisory council (or committee) is formed and meets to help determine program needs and to assist in the promotion and evaluation of the program:
  - The advisory council meets at least three times per year.
  - The advisory council helps to identify work experience sites.
  - The advisory council helps provide local employment data.
  - The advisory council helps to identify needed resources.
  - The advisory council is involved with teacher selection.
  - Advisory council members serve as instructional resources.
  - Advisory council members assist with placement of program completers.
  - The advisory council functions under written guidelines which specify the length of members' terms, responsibilities and operational procedures.
  - Minutes of advisory council meetings are disseminated to council members, administrators, school board members, and others.
- Program staff establish cooperative working relationships with community businesses and industries:
  - There is evidence that the advisory council understands and supports the program.
  - There is evidence that the advice of the advisory council is utilized in improving the curriculum.
  - There is evidence that the advisory council assists in setting up joint activities with the community.
- There is evidence of extensive community involvement in the total activities of the program:
  - There is evidence of cooperative activities with civic and private organizations.
  - There is evidence of community improvement activities.
  - Community members are invited to participate in various program activities.
  - Community media are kept informed of program activities.

RESOURCE REQUIREMENTS

The greatest resource requirement for community involvement is the creativity and resourcefulness of the teachers and administrators involved. Very few fiscal resources on the part of the school are required to get appropriate community involvement.

10

SYNOPSES OF CASE STUDIES

The case study reports included in this section represent a brief report of the context and program offered at each location. Space as well as the intent of this publication do not permit a total description of everything that happens in successful urban agriculture/agribusiness programs; however, case study sites were selected after careful review of selection criteria developed by a 25-member advisory committee and extensive discussion with the local program directors.

The sites selected for visitation included:

- Dallas Independent School District
  Skyline Center
  7777 Forney Road
  Dallas, Texas 75227
  Joe Skinner, Instructor
  (214) 388-2101
- Los Angeles Unified School District
  Narbonne High School
  24300 South Western Avenue
  Harbor City, California 90012
  Clarence Mann, Instructor
  (213) 326-0920
- Mesa, Arizona Schools
  Westwood High School
  945 West 8th Street
  Mesa, Arizona 85201
  Leo Peterson, Head Instructor
  (602) 964-2634
- Miami-Dade County School System
  Miami Agricultural School
  10200 N. W. 17th Avenue
  Miami, Florida 33147
  Paul Belardino, Principal
  (305) 696-6721

- Minneapolis Public Schools
  Agri-Business Vocational Center
  4717 Dowling Street South
  Minneapolis, Minnesota 55406
  Norman Busse, Instructional Manager
  (612) 721-5118

- New York City Schools
  John Bowne High School
  63-25 Main Street
  Flushing, New York 11367
  Robert Klastorin, Assistant Principal
  (212)-263-5555

- Philadelphia Public Schools
  W. B. Saul High School of Agricultural Science
  7100 Henry Avenue
  Philadelphia, Pennsylvania 19128
  Ralph E. Bartholomew, Principal
  (215) 483-3200

- Portland Public Schools
  Operation Green Thumb
  6801 SE 60th
  Portland, Oregon 97206
  Mike Miller, Supervisor
  (503) 771-0286

- Toledo Public Schools
  Agriculture Education Center
  5561 Elmer Drive
  Toledo, Ohio 43615
  James Olmstead, Agricultural Education Supervisor
  (419) 537-1198

DALLAS INDEPENDENT SCHOOL DISTRICT
DALLAS, TEXAS
SKYLINE CENTER

The Dallas Independent School District (DISD) serves a population of over 850,000, with a district student enrollment of 131,907. Skyline Center is located on the eastern edge of Dallas near Mesquite. The Center is a multi-purpose facility which includes a Career Development Center (CDC), a comprehensive high school, and a Center for Community Services which is an extension of the adult education program of the DISD. The Career Development Center houses the occupational career cluster at Skyline which was initiated by the Education Committee of the Dallas Chamber of Commerce to meet the needs of the community. The comprehensive high school has a student enrollment of 3,600 full-time students of which 1,900 also participate in one of the career clusters of the CDC. An additional 600-800 students attend the Center on a part-time basis and are transported daily via shuttle bus service (provided by the school district) from any of the other high schools in Dallas for a 3-hour block in a career cluster. In the Dallas school district there are a total of 38 high schools, with Production Agriculture in one school, an Agriculture Cooperative Training program at three schools, Ornamental Horticulture for the Handicapped at one school, and the Pre-Employment Laboratory in Ornamental Horticulture and ninth grade Orientation to Agriculture at Skyline Center.

The Ornamental Horticulture program is offered in two 3-hour blocks and includes floriculture, landscape design, small crop production, and plant propagation. The one-hour, pre-cluster occupational exploration class is taught for ninth grade students with close coordination by the teacher with the high school instructor. Of the 31 students enrolled in the high school horticulture program, two-thirds are female and ten percent are minorities.

Administrative responsibilities for the CDC Skyline are assigned to a Manager for the career cluster, which includes the Ornamental Horticulture program. From the school district office an Administrator of Occupational Education (Local Director) and an Instructional Facilitator provide program liaison and administrative assistance with vocational funds.

The original facilities and equipment for the total Skyline Center were planned and purchased through local district funding after the need was established by the Education Committee of the Dallas Chamber of Commerce. Currently state vocational education funding supplements district funds. A Career Education Advisory Board, requested by the Board of Education and appointed by the Chamber of Commerce, has a special task force serving district wide to formally review and make recommendations for future directions of the total vocational program. The Executive Director of the District Career Education Advisory Board is a joint employee of the Chamber of Commerce and the school district. In addition each magnet school in the district has an Advisory Committee as well as a smaller committee for each program area (e.g. horticulture) to assist with curriculum development and review, equipment needs, and job placement.

The one instructor for the program has an advanced degree in development in the urban environment. To meet student and community

needs, a second teacher with preparation and background in horticulture is being sought. In-service training is encouraged and provided through training in industry and summer seminars. The instructor has also had an impact on state FFA activities by being instrumental in developing horticulture contests for FFA competition.

The instructional program provides the opportunity for first-year students to participate in the morning session with second-year students participating in the afternoon. The second-year students receive on-the-job training (without pay) for experiences not provided in the program and also design and install the landscaping for the houses built by the Building Trades Cluster. Curriculum for the program is developed and updated continuously by a team of instructors at the Center. The grading system for the program is computerized with reports every six weeks listing the number of course objectives and percentage of satisfactory completion. Printout information is used to articulate with placement on the job or in a community college program. Five-year follow-up surveys indicate that 76 percent of the graduates remain in horticulture related jobs. Landscape and floral associations assist in job placement in which the demand is greater than the supply.

Facilities for the program include the 80-acre campus of Skyline which is available as a learning center, a classroom with two walk-in coolers, a self-contained potting room, a tool room, an 1800 sq. ft. greenhouse, a 40x50 lathe house, a mist propagation table, a lounge and restroom, and various pieces of small engine equipment.

The year-round information giving and outreach program developed and implemented by the career cluster counselors and the pre-cluster exploration programs for ninth grade students are major contributors to the success of the program. Year-round awareness efforts utilize other in-school programs to develop orientation films, slides and brochures, and resource speakers for eighth and ninth grade classes, and information for parents. Prior to registration a comprehensive intensive two-week effort is conducted in which Information Teams (*not* "recruiters") present program information to high school students in assemblies, discussion areas, English and Math classes, and Open House for students and parents.

Application and screening processes are used because there is a greater student demand for the horticulture program than can currently be accepted. A second teacher, when hired, will help alleviate this problem.

In summary, the unique and successful procedures/features of this program include the following:

- The total involvement of the community with vocational education;
- The ninth grade career exploration clusters;
- The strength, support and structure of the Advisory Board;
- The coordination between horticulture and other clusters, e.g. building trades, photography; and,
- The grading system featuring computerized lists of objectives/ completion for articulating with placement on job or community college.

LOS ANGELES UNIFIED SCHOOL DISTRICT
LOS ANGELES, CALIFORNIA
NARBONNE HIGH SCHOOL

The City of Los Angeles covers 700 square miles with a school district that serves a student enrollment of 200,000. Twenty-eight of the forty high schools in the district have vocational agriculture programs. Narbonne High School serves the areas of Harbor City, Torrance, and Harbor Hills with a population of approximately 150,000 and a school enrollment of 2,500. The agriculture program at Narbonne, which is available to all tenth, eleventh, and twelfth grades students, has an enrollment of 200 students. The enrollment is equally distributed between males and females and has a minority enrollment of twenty-five percent (Mexican-American, Oriental, Black and Indian). Many of the students have been involved in 4-H and find a natural transition to agriculture programs.

The program offerings include animal science, plant science, floriculture, and landscape design and maintenance. Forestry and natural resources are occasionally offered by special arrangement on Saturdays. Course guidelines have been developed by and for local instructors in the school district. Units of instruction include performance skills and records of achievement are maintained on each student. The records are accepted as evidence of progress throughout the district and at area community colleges. The total program is titled Agricultural and Environmental Education and includes units for grades seven through twelve. Junior high school agriculture programs, which have excellent facilities, are provided to grades seven through nine and feed into the high school program.

Energy conservation is being promoted; a solar greenhouse is being constructed; hydroponics are being introduced; and drip irrigation is utilized on the school lab/farm facilities. High school science credit is given for Agriculture Plant and Science and is transferable by special arrangement to the University of California local campus.

The Agriculture Education programs in the Los Angeles Unified School District are coordinated by a central office staff directed by the Agriculture Education Supervisor who reports to the District Superintendent. The two program instructors at Narbonne High School receive assistance from the district office but have line responsibility to the school Principal. Four vocational advisory councils serve the district—one each on animal science, forestry, horticulture, and floriculture, and assist in evaluating curriculum and keeping the instructors and programs updated on the industry. District VEA funds provide for equipment, supplies and facility maintenance. Plant and animal sales by students and donations by service clubs are used to purchase equipment and supplies, with local nurseries donating additional materials and supplies.

The two instructors in the program are assisted by two half-time adult aides who are provided by district funds. One aide is a retired City Recreation/Park Director who volunteers for more than he is paid. The Head of the Department

has a background of experience working in the inner-city and industry-related agriculture (versus rural) programs in the Los Angeles area.

In-service staff development of a general nature is provided and paid for by the district office. VEA funds are used to pay for a two-week summer workshop which provides for a week of training in curriculum development and FFA and one week for updating on technologies. The vocational administration also arranges for a teacher/business exchange for training and updating in technology.

A high school Career Advisor assists the students in job placement and a Field Supervisor provides coordination between the employers and the work experience students. A CETA Supervisor visits the CETA students in the classroom periodically to check quotas and visits the students on the job site.

The program is located on a three-acre plot on the campus of the high school. There are two regular classrooms, a small barn for animal projects, stockrooms, production area for crops, a small tractor, lawn-mowers, a greenhouse, nursery and lathe house, a refrigerated unit for the floral program, automated animal production pens, one acre pasture, extensive landscape area, small animals and major livestock.

For several years agricultural education programs with standard units/facilities in the junior high schools have been excellent feeder programs for the high school programs. Counselors and student FFA officers present orientation programs to the junior high schools; open houses and Club Day also are used. "Early" recruitment begins with pre-school children being given tours of the facilities with student guides. A slide/tape presentation was developed and used for presentation to students as well as to service clubs and local organizations. The small animal program focus is also a drawing card.

Individual, home, campus, and community improvement projects provide opportunities for achievement awards and often are competitive activities within the school district and/or community. The Chamber of Commerce, Mayor, and City Council develop and provide city projects such as planting trees, landscaping, community entrances, main street and museums. Local merchants sponsor landscape competition. Service organizations (Lions, Rotary, Kiwanis, etc.) and parents lend strong support and are encouraged to get involved in projects. Scholarships from local organizations and awards are presented at the Annual Awards Banquet. Campus and community news media provide publicity and re cognition of all these activities and achievements and contribute to recruitment efforts.

In summary, highlights of the program include the following procedures:

- An active program-integrated FFA chapter;
- The feeder program in the junior high schools (grades seven through nine);
- The statewide recognition for community involvement;
- The diversity of program offerings and provision for individual student interests;
- The dedicated instructional staff which has earned the support of administration and community;

- The availability and use of adult paid (and volunteer) aides;
- The summer in-service training and teacher/business exchange program;
- The on-going publicity in school and community media that contributes to student and program recognition and success;
- Science credit given for Agriculture Plant and Science; and,
- Energy conservation techniques being promoted.

MESA SCHOOL DISTRICT
MESA, ARIZONA
WESTWOOD HIGH SCHOOL

Mesa is located in southern Arizona approximately 10 miles east of Phoenix. The school district serves a population of 200,000 of which approximately 20 percent are minorities. The head agriculture education instructor at Westwood High School designed and developed the plans for the original agriculture program and facilities which have been implemented in each of the three high schools which serve the district. Westwood High School has a student enrollment of 2,500. The total enrollment of the agricultural program at Westwood includes 170 tenth, eleventh, and twelfth grade students and 80 junior high students with about ten percent of the enrollment being minorities (Mexican-American, Asian, and Black). Seventy percent of the vocational agriculture enrollment is male and thirty percent female.

Program planning includes a written five-year plan, an annual program of work, and a budget of capital and operating expenditures, developed by the agriculture education instructors of the school and submitted to the school district office. Program offerings, which include animal science, conservation, horticulture, and agriculture mechanics, are based on an analysis of pupil needs and agriculture needs of the community. Supervised occupational experiences are provided in both production agriculture and off-farm occupations. As a result of a community survey completed by the Agriculture Teachers, however, program emphasis is moving away from production agriculture toward agribusiness phases of animal science, conservation, horticulture, and mechanics. Input from an active and effective Advisory Council regarding community needs is strongly considered by teachers and administrators in the total agriculture education program planning effort.

Planning and policy decisions for the agriculture education programs at all three high schools are coordinated by an Agriculture Specialist who is responsible to the Director of Vocational Education at the school district office two periods per day with the remainder of his time spent as one of the four instructors at Westwood High School.

There are four instructors in the agriculture program, each of whom has received district, state, and/or national recognition. One of the instructors serves as head of the department, one is FFA advisor, one is supervisor of the occupational experience program, and one is the District Agriculture Specialist. Three of the instructors teach Orientation to Agriculture classes which are offered at each of the three feeder junior high schools. In addition, the four instructors develop an annual chart of assignments to specify components of the program for which each of them will have major responsibility (e.g., each FFA activity, each Proficiency Award, each judging contest, each of the laboratories, etc.).

In-service training is proided for the instructors by the District at an annual four-day agriculture teacher conference and through short/intensive summer workshops sponsored by the University of Arizona. Teachers receive one extra

year of service pay for holding a vocational education certificate as well as salary increments for work experience and updating in business and industry.

The program is locataed on a three-acre plot adjacent to the main campus. A ten-acre off-campus land laboratory is also available for crop production, use of big machinery, and expansion to golf course and turf management. Students are transported to the off-campus site via bus. Each instructor is qualified and approved to drive the bus, which was purchased by the district for exclusive use of the Westwood High agriculture program because of the training provided by on-site visits to a variety of locations. This eliminates scheduling problems with district buses. Other facilities include two classrooms adjacent to a large shop area and separated by the teachers' office, three green-houses, two lathe houses and various pieces of equipment. Student lockers, a clean-up area, and restrooms are also provided.

District and vocational funds are used to maintain the land-livestock laboratory and provide equipment. Income from product sales is used to pay for additional operational expenses, special equipment, and expenses connected to the different enterprises. Any surplus profit is used for FFA activities.

Labor of an educational nature to operate the laboratory or equipment is provided by the students. Repair, improvement and maintenance duties of non-educational value are provided by district personnel and funds.

The most effective recruitment for the agriculture program results from the ninth grade junior high school introductory agriculture education programs which feed into Westwood High School. A classroom, small land laboratory, greenhouse, and storage building are provided for each junior high, as well as membership in the high school FFA chapter. Other effective orientation and recruitment activities include a slide/tape show for assembly programs and presentations to eighth and ninth grade classes by FFA officers and instructors, field trips to the high school program, and television interview/discussion programs. Student and chapter achievement in individual and community activities are recognized at annual awards banquets and related publicity countributes to recruitment efforts. Results of the recruitment and holding power of the program are in evidence in statistics which indicate that 53 percent of the students are placed in agriculture or related occupations (such as nurseries, landscape design, machinery repair, sales, etc.) with an additional 17 percent in higher education agriculture-related training programs.

The Westwood High School agriculture program has an active Advisory Council and a Parents Advisory Council. Each of the Councils has written purposes and procedures and meets on a regular basis. Recommendations from the Advisory Council are generally implemented. Council members often provide instruction in the classroom when teachers have to be away at meetings.

Local business and industry provide several opportunities for learning; such as, the local slaughter-house provides its facilities twice a year for the students to take over and learn various phases of the operation. Trade-offs of products are made with nurseryworkers for supplies and materials (gravel, plants, dirt). Former students help supply equipment and materials and support the program.

Programs and slide/tape presentations are given by students and instructors for community organizations. Students publicize, price, wrap and sell plants grown in class. Summer plants/crops are given to various people for public relations.

Three big activities a year involve students, parents, school officials, local business and industry, city and county leaders. The "Wood Cut" is an overnight stay in the forest (120 miles away). This activity provides training and safety procedures in the forestry industry. The wood is used in the Fall Open House/Pit Bar B-Q (from animals slaughtered at local slaughter-house project). The Spring Banquet is the culmination of the activities of the year with awards and recognition of students, appropriate business, community and school leaders and other supporters of the program.

In summary, the procedures which are unique and/or contribute to the success of the program include the following activities:

- a written five year plan and annual program of work
- an active, effective Advisory Council and also a Parents' Council, each with written purposes;
- an annual chart of written assignments developed by and for the instructors;
- a bus for exclusive use of the agriculture program;
- an introductory agriculture program in ninth grade feeder junior high schools which is taught by the high school instructors;
- the two-way community involvement and related publicity activities;
- dedicated, sincere instructors and administrative support in providing programs which recognize the individuality of students and their needs; and,
- a strong FFA with high student involvement and participation in motivated activities of application (Land Lab, etc.) or in a leadership nature.

DADE COUNTY SCHOOL SYSTEM
MIAMI AGRICULTURAL SCHOOL
FLORIDA

Miami is located in the Southeastern corner of the United States and includes a metropolitan area of approximately 1.7 million people. The population includes large proportions of Blacks, Cubans, Hispanics and other nationalities. Because of the climate, Miami is well known for its resort and retirement areas as well as the production of several food crops. Originally, the Miami Agricultural School included approximately 80 acres of land, but that area has been reduced somewhat by the construction of a high school on one end of the site. The Agricultural School, which is designed to serve students in grades nine through twelve from all 26 of the Dade County high schools, is located in the Northwestern part of the city of Miami. Currently 415 students attend the school with approximately 25 percent of the enrollment being Black and 25 percent being Spanish. Thirty percent of the students are female.

The agricultural program in Miami has been in operation for many years but has been revised considerably to better meet the needs of individuals served. The program is organized around the concept of a free-standing school with a principal as its chief operating officer. Although most students complete their academic requirements in their home-school—students are transported to the agriculture school for instructional periods of two hours per day—some related and remedial programs are available at the agriculture school. In addition to the principal, ten instructors comprise the instructional staff.

Most of the planning is initiated by individual teachers who then move to committee development of viable alternatives and submit plans and requests to the school principal. The principal, in turn, coordinates planning with the local director of vocational education and State Agricultural education supervisory staff. Formal advisory committee meetings are conducted, but much emphasis is placed on working on a one-to-one basis with advisory committee members. Advisory committee members assist with planning, recruitment, placement and keeping instructors updated in technical subject areas.

Since the school is essentially considered a separate entity in the total school system, it has its own budget and also is responsible for its recruitment, public information and image-building programs. Because the school draws students from several other high schools, administrators and counselors in other schools do provide some assistance with recruitment, placement and public relations.

The instructional program includes a broad range of offerings to meet the diversified needs of the area. Animal production, field crop production, horticulture, natural resources and mechanics are a few of the areas available to students. Special programs have been developed and implemented to meet the needs of handicapped students. The instructional program is designed around realistic work settings since the school has a barn, chicken sheds, machinery shops, greenhouses, a sales gazebo, nursery areas and park-like settings for natural resource instruction.

Further, the inclusion of both passive and active solar energy systems in the instructional and operational program provides students with special skills for constructing and maintaining such systems.

Instructional management is enhanced by dividing display areas, the nursery, and other instructional areas into sections. Individual teachers are assigned responsibility for each section. Coordination of instruction is accomplished by regularly scheduled instructor meetings.

Community involvement in the program, in addition to advisory committees, includes sales of products of instructional programs to the public, student participation in flower shows and community and county fairs, and working with community agencies on community beautification projects.

In addition to the extensive use of mass media, outreach and recruitment is accomplished by providing printed materials to guidance and counseling personnel throughout the system. Instructors from the Agricultural School participate in Career Days at various feeder schools, and slide/tape presentations on agricultural careers and programs are made available for use throughout the school system.

Placement activities are a responsibility of individual teachers, since the Agricultural School itself has no guidance counselor or placement coordinator. Since instructors work so closely with local business and industry, both in advisory council roles and in needs assessment for program planning purposes, specific employment opportunities are quite readily identified.

Student achievement is measured primarily through placement, community leadership roles after completion of the program, and through FFA awards and achievement programs.

The equipment and facilities at the agricultural school are exemplary in nature in that they provide opportunities for students to learn in an environment that is very similar to actual working conditions. Although buildings are not necessarily modernistic in design, they provide adequate working space, are designed and laid out in an efficient manner and include indoor and outdoor learning areas. Students have participated in the construction of some of the buildings (as part of the instructional program) and have prepared land and open teaching areas for appropriate use in the instructional program.

A summary of the exemplary components at the Miami Agricultural School includes:

- an emerging emphasis on conservation and use of solar and wind energy in agricultural areas;
- the facilities and equipment;
- provision of learning opportunities for handicapped individuals; and,
- th· ministrative organization of the program.

MINNEAPOLIS PUBLIC SCHOOLS AGRI-BUSINESS VOCATIONAL CENTER MINNEAPOLIS, MN

Minneapolis is located in the North Central part of the United States. The surrounding area is heavily agricultural production oriented with many agriculturally-related businesses in the city of Minneapolis. The Minneapolis Public Schools serve a total population of approximately 500,000, with a school enrollment of 48,000 students. Currently about 60 students are enrolled in centeragriculture programs with 18 percent of the enrollment being female and 82 percent male. In addition to white student enrollments, American Indian, Southeast Asian, and Black students are also enrolled. Approximately 10 percent of the enrollment slots are set aside for handicapped students.

The Agri-Business Vocational Center is a free standing separate campus located in the City of Minneapolis. The instructional manager for the program is responsible to the local director of vocational-technical education, through the assistant director of vocational-technical education. Although a vocational agriculture program had been in operation in the City since 1945, planning for the current program was initiated in 1968 by the teacher of agriculture and the assistant director of vocational education. Using some land donated to the school system for programs for the handicapped and some funds from the 1976 Public Employment Act, the current program and facilities were developed. The facilities include a remodeled bus garage, surplus temporary classrooms, and new construction components for offices, greenhouses, additional shops, and other areas. The planning in cooperation with the Department of Special Education has resulted in a facility completely accessible to handicapped students, including a series of pathways throughout the land laboratory areas that are accessible by wheelchairs.

Program offerings are provided in the areas of agribusiness, horticulture, and natural resources. Twelve different courses are offered in those areas on a twelve-week trimester basis as well as an accelerated summer program. Courses are available to all tenth through twelfth grade students in the Minneapolis Public Schools. Most of the instruction is developed around individualized programs with many audiovisual materials available for student use.

An attractive series of brochures provide ample information to guidance and counseling personnel and students for recruitment purposes. Further, publicity and scholarships provided by a local garden club (Friends of the Wild Flower Garden, Inc.) provide additional outreach recruitment support. Opportunities for other teachers in the system to use land laboratory space and hand tools are also provided.

In addition to use of advisory committees, community involvement includes some use of land laboratory space for community gardens during periods when the space is not being used for instructive purposes. Since most types of facilities are available at the Agri-Business Center, and since periods of instruction are relatively short, little use of formal on-the-job training is provided.

Student placement is the responsibility of a placement coordinator, and follow-up activities are completed mostly at the State level.

Some of the exemplary components of the program include:

- Modern and appropriate facilities and equipment;
- Individualized instruction;
- Use of performance profiles to determine performance at the end of each course;
- Design and layout of the land laboratory;
- Administrative support; and,
- Accommodation and design of programs for handicapped individuals.

SCHOOL DISTRICT OF NEW YORK CITY
JOHN BOWNE HIGH SCHOOL
FLUSHING, NEW YORK

The School District of New York City serves one of the largest metropolitan population areas in the United States. John Bowne High School, a comprehensive school, serves 3,000 students. The area is cosmopolitan in nature with students from 43 countries enrolled in the high school. The Agriculture program has an enrollment of approximately 400 students with 45 percent being male and 55 percent being female. The program enrolls a number of Blacks, Hispanics and individuals with other ethnic backgrounds. In addition, some handicapped students are enrolled in various agriculture programs.

The vocational agriculture program at John Bowne High School has been in existence for 62 years. The long history and success of the program now makes planning and modifications of programs much easier. Further, the current head of the vocational agriculture program also serves as assistant principal and has direct input to planning for the total school programs. The program is organized around four basic areas which are described in the following paragraphs.

1. TECHNICAL AGRICULTURE

This is a three-year course starting in the tenth grade open to boys and girls from all boroughs of New York City changes. The course involves a comprehensive exploration of all the areas in Agriculture from food production through soil conservation and animal care. Animal science includes work with both small and large domestic animals. Also included in the curriculum are instructional units in Agricultural Mechanics, Agri-Business and Forestry.

Education objectives are to provide students with:

a. An understanding of the broad field of Agriculture and its importance to our economy.
b. An opportunity for students living in an urban area to develop an educational background for careers in agriculturally realted fields.
c. An opportunity to explore careers and develop vocational competencies in various agricultural areas.

The major thrust of the program is to encourage students to pursue further education on the college level to prepare them for a professional level of job entry.

Included as part of the requirements for graduation are three summers of work experience. The first summer is spent working on the Land Laboratory at John Bowne High School. The next two summers are spent working on farms and other agriculturally-related enterprises such as veterinary offices, the Department of Parks, Botanic Gardens, etc. The occupational experience program of the pupils is used to correlate their practical experiences with the

work of the classroom and laboratory. Approximately 85 percent of the graduating class in this course go on to a college of agriculture.

2. ORNAMENTAL HORTICULTURE

This is a three-year program starting in the tenth grade for boys and girls from all boroughs in New York City. The first year is devoted to basic technical instruction as it relats to career opportunities in ornamental horticulture, business management, greenhouse production and management, landscape planning and maintenance, floral arrangement and design, turf growing and maintenance, ornamental horticultural mechanics and related construction jobs. The junior and senior years are structured based upon a modified cooperative educational plan. Students are expected to learn by doing and earn while learning. The school is responsible for placement and supervision of each student on the job. The Ornamental Horticulture instructor is responsible for supervising students on the job.

An advisory commission in Ornamental Horticulture consisting of leaders in the trades and education has been organized to assist in this program.

3. SMALL ANIMAL CARE

This is a three-year program starting in the tenth grade for boys and girls from all boroughs of New York City. The course involves developing knowledge and skills in small animal anatomy, nutrition, recordkeeping, sanitation, diseases and care. It give information concerning various species and characteristics of animals commonly used and handled both in research laboratories and pet shops. The course is also designed to survey vocational and professional job opportunities in animal care such as animal breeders, pet shop attendants, dog groomers, and veterinary assistant. Some of the general objectives are to provide students with a practical, hands-on approach to improving the ability of a student to identify internal and external parasites of small animals, demonstrate oral administration of medications, select animals for breeding, demonstrate methods of animal restraint according to species and circumstances. Students may find employment in this field at the basic levels upon graduation or opt to continue with post-graduate work. Students graduating from the course are required to take the AALAS (American Association for Laboratory Animal Science) examination, which provides them with professional certificaion as to their competencies.

4. EXPLORATORY AGRICULTURE

This is a one-year course for boys and girls from all boroughs of New York City. Students coming out of the eighth grade apply for entry into the Exploratory Agriculture program as a prerequisite for further training in the other three course offerings in the Agriculture department.

The major thrust of this program is to explore occupations and careers and to provide the students with information so that after having experienced selected learning activities, they will be better able to select a career or choose a more specialized area of Agriculture for further study.

Some of the most successful aspects of the program at John Bowne High School include:

- a section of the library set aside for agriculture references, magazines and related materials;
- a "country" fair;
- working relationship with a neighboring college for landscaping practice;
- a total production program on a small scale;
- the administrative organization;
- the summer work experience program;
- competing requirements and testing program;
- the student incentives for work experiences;
- program faculty meetings with minutes disseminated following the meeting.

SCHOOL DISTRICT OF PHILADELPHIA
PHILADELPHIA, PENNSYLVANIA
WALTER BIDDLE SAUL HIGH SCHOOL
OF AGRICULTURAL SCIENCES

Walter Biddle Saul High School serves the entire Philadelphia school system which is the fourth largest public school system in the nation, serving more than 240,000 public school pupils. The total population of the geographic area served by the school system is approximately 1,800,000. Attending Walter Biddle Saul High School at this time are about 650 students: 50 percent male, 50 percent female. Ethnically, there are 36 percent Black and 64 percent white students now in attendance. Also included in the student body are a few orthopedically and learning disabled students.

Leaderhip for this institution is provided by a principal who qualifies not only as an administrator, but who also is well versed in the many disciplines of the agricultural sciences.

Instruction in the agricultural areas is varied and includes classes in Animal Production, Crop Production, Agricultural Machinery Sales and Service, Laboratory Animal Technology, Turf Technology, Greenhouse Management, Retail Floriculture and Landscape Horticulture. Ninth and tenth grade students are provided with "Agriculture Experience Clusters" which are followed by specialization in the eleventh and twelfth grades. By providing experiences in a variety of areas, it is hoped that employment and educational options to all of the schools' students will increase.

Instruction is competency based, with the hands-on approach to learning being emphasized in all areas. Objectives for the program are based on the competency needed by the students for entry and advancement in an employment area. Academic requirements and achievement are not neglected, since this school ranks third in the city of Philadelphia for numbers of students placed in colleges. This ranking puts Walter Biddle Saul High School above 27 academic high schools in the school district of Philadelphia.

The instructional program at W. B. Saul High School is well balanced and revolves around a staff of sixteen fully qualified teachers of agriculture and twenty-five academic teachers. Administrative leadership is provided by the Principal, a Vice-Principal and two full-time Coordinators. It is important to note that the agriculture offerings are the keystone to the organization of the school. A specific example of this is the major importance of the Future Farmers of America as the leading student organization in the school, rather than the traditional Artista, honor societies, etc. found in other high schools. Walter Biddle Saul High School has the honor of having the largest FFA Chapter in the United States. Overall experience at W. B. Saul High School has proven that FFA programs of leadership development, contests and citizenship are an integral part of a strong urban program. The importance of FFA at this school is further illustrated by the inclusion in Agriculture teacher-licensing exams of questions which would allow an examiner to determine a teacher-candidate's knowledge of this youth organization.

In the early stages of development of this course, advisory committees played a very important role in determining the curriculum. This input, coupled with assistance from the State Education Department, has provided the school with a fine selection of instructional units in the various areas of agriculture. Currently, the advisory committee meets periodically to help revise the curriculum based upon needs of the agribusiness world. Members of the committee have been of tremendous assistance in helping to identify work experience sites and in the general placement of graduates of the program. At this time, the number of job opportunities available exceeds the number of students graduating from W. B. Saul High School.

Because of W. B. Saul High School's unique geographical location in the city of Philadelphia, much of the work experience takes place on the school site. Available to the school is approximately 100 acres of land with accompanying buildings and livestock, which includes a small dairy herd, beef cattle, sheep, pigs, poultry, and various small animals such as hamsters, guinea pigs, etc. This school has been provided with excellent facilities and equipment through funding by local tax levy sources and federal support through Vocational Education Act funding.

Student recruitment for this program has in the past been carried on by one of the full-time Coordinators in the school. A very fine slide presentation is available to be shown at various junior high and middle schools. In more recent years, the school has not needed a formal recruitment program, because applications now being received each year approximate 1000. This is one of the few programs not declining in enrollment in the city of Philadelphia. As an adjunct to recruitment, one must take note of the methods used for accepting or rejecting a student in this program. Since W. B. Saul High School is an agricultural and educational entity to itself, the administration sets aside one full day to interview, on an individual basis, each and every student applying for admission. In addition, a written "interest inventory" examination, developed by the Principal, is also used to determine whether a student will be accepted into the program. The validity of this examination for urban students has been ascertained and accepted as a valuable instrument for determining acceptance. The selection process also includes consideration of various factors such as previous academic records, attendance, and specific scores on achievement tests. When this process is completed, a mutual understanding of what the program intends to achieve and what is expected of a student participating is established.

The financial requirements for an instructional program such as presented by this school are obviously of major importance to anyone involved in starting a program of this nature. Since it is not practical to hope for large sums of money during this time of budgetary crisis, rather than describe specific budget requirements, attention is focused on several key expenditures (salaries, equipment and supplies) necessary for success in such an undertaking. Funds must be allocated for salaries to attract staff who are fully qualified in the vocational agriculture area. Also included in a budget, (such as is the case in Philadelphia), are provisions for additional salaries to allow a school to operate on a twelve-month basis.

If large equipment necessary for instruction cannot be purchased immediately, the possibility of rental or leasing arrangements must be considered. The need for consumable supplies can be provided for through the production of both agricultural products and services. Examples of this type of income at W. B. Saul High school would be the sale of ornamental plants, flower arrangements, vegetable crops, eggs, meat and the grooming of dogs and cats. Analysis of this program would indicate that self-generated funds are of the utmost importance in maintaining continuity of instruction.

Community involvement at W. B. Saul High School has many facets. The PTA consists of parents from all over the city of Philadelphia, since this is a city-wide course. It is interesting to note that while agriculture education is elsewhere in a period of quiescence with PTA's, the particular PTA proves itself to be active, supportive and cooperative in furthering the success of the program in many ways. With the assistance of the PTA, there is community participation in "special days" throughout the year. As an example, demonstrations are put on for Arbor Day and for garden and Kiwanis Clubs. The school also participates each year in the Philadelphia Flower Show. Television stations provide coverage of activities during the summer session, which allows a large segment of the public to see what students are doing at Walter Biddle Saul High School. The importance of community involvement cannot be emphasized enough as this is a vital part of the establishment of a good public relations program.

Much of the success at this school relates directly to the quality of the personnel conducting the program. The keys to success revolve around:

- establishing needs, through the use of a viable and knowledgeable advisory committee;
- providing a program with competent, qualified, *agricultural* instructors and leadership; and,
- designing and implementing an admittance program which encourages youngsters who are sincerely interested to apply and be admitted to the program.

PORTLAND PUBLIC SCHOOLS
PORTLAND, OREGON
"OPERATION GREEN THUMB"

Portland is located near the coast in the northwestern corner of Oregon. The school district serves a community of approximately 575,000 with a student population of 52,000 and a 10-12 percent minority population. Operation Green Thumb, available to all tenth, eleventh, and twelfth grade students in the 13 schools in the district, has a total enrollment of 130 students, 50 percent female, 50 percent male, and 6 percent minority.

The program was developed to satisfy the growing demand for horticultural services and products and to provide for the increasing number of job opportunities in the Portland area. Program offerings are in the plant sciences taxonomy and include training in ornamental horticulture, floral display design, landscaping, and nursery operation. Forestry and turf and golf course management are being considered when staff are made available. Operated as a separate facility, Green Thumb provides classes in two 2-hour blocks of time for students who are transported to the 13-acre site by district buses.

The full-time Director of the program is responsible for administering overall program operations which include program planning and scheduling, budget preparation, hiring, supervising and evaluating staff, weekly staff meetings, and student scheduling. An area administrator, who has general and vocational responsibilities, provides support and assistance through regular visits and contact from the District Office. A regional agriculture supervisor from the state education department provides assistance and support with the vocational funds. The close working relationships with the Oregon Nurserymen's Association, the Oregon Landscape Gardeners' Association, and a program Advisory Council provide program guidance and support.

The director and six instructors have a wide-range of agricultural experiences and training. With input from the Advisory Council and other industry representatives, the instructional staff has developed and updated the curriculum since the inception of the program. One of the instructors serves as the FFA Advisor, and one serves as coordinator of the work experience program for seniors, coordinates recruitment efforts and serves on the Board of the Oregon Landscape Gardeners' Association. The coordinator works directly with the students in the feeder schools. Awareness and recruitment efforts include a slide/tape presentation with display demonstrations during pre-enrollment programs, media releases, posters, t-shirts, plant/flower sales, open houses, and science class tours of the facility. Regular meetings with the area school principals and counselors secure understanding and cooperation with the program.

Facilities for the program include five large fiberglass greenhouses (21,000 sq. ft.) with classrooms; a 30'X100' utility building with a classroom; one portable classroom; an arboretum; a two-story house built on the site by a high

school building trades class for a live-in caretaker (prevents vandalism and provides year round care); an office, and a conference room.

In summary, a few of the procedures which have been successful in this program development and operation include the following:

- One facility to reduce duplication and increase offerings;
- Submission to district of 5-year plans;
- Written criteria to determine achievement level and elegibility for work experience placemet;
- Scheduling which involves the development of a master schedule for each student based on individual interests at the end of first six week term;
- Transportation of students by district buses to the facility; in addition, the program has its own bus for greater opportunity through trips to off-campus sites (the instructors are licensed and approved bus drivers); and,
- Two-way involvement with community and professional associations.

TOLEDO PUBLIC SCHOOLS AGRICULTURAL EDUCATION CENTER TOLEDO, OHIO

Toledo is located in the northwestern corner of the State of Ohio. The school district serves a population of approximately 400,000 people, of which approximately 25 percent are minorities. In addition to the many manufacturing and industrial employment opportunities in the area, several corporate headquarters facilities contribute to the employment base. The surrounding area is heavily production agriculture oriented and includes some large greenhouse and nursery operations within the school district boundaries. The total enrollment of the agriculture program is approximately 175 eleventh and twelfth grade students with about 10 percent of that enrollment being minorities. Fifty percent of the vocational agriculture enrollment is female and 50 percent is male.

The program offerings are unique in that the whole program is planned and organized around agricultural taxonomies. Many community facilities are utilized in the instructional program and emphasis is placed on those areas that offer the most viable job opportunities to program completers.

Each of the taxonomy areas (small animal care, landscaping, natural resources, horticulture mechanics and floriculture) has a separate advisory committee whose members are utilized extensively, primarily on a one-to-one basis. The instructors in each taxonomy area initiate all planning and development which is coordinated by the Director of the Agricultural Education Center who coordinates the agricultural education program activities with other vocational programs through the Executive Director of Vocational Education for the school system. Rigid protocol channels are observed, which eliminates many communications problems. In addition to a separate classroom and laboratory facility located on a ten-acre plot, the program makes extensive use of classroom and laboratory facilities at the City Zoo, the Ohio Medical College, other school system land, and the Metro Park system lands. Advisory Committee members and local employers make extensive input to the curriculum and provide opportunities for staff to upgrade and update technical competencies.

Extensive public information is provided to teachers, guidance counselors, administrators and the public through the internal newspaper of the school system. The nature of the curriculum necessitates that constant information be provided counselors, administrators and others. Special recruitment packages consisting of slides and printed information are provided for use in school "Career Day" programs and by counselors. FFA student participation, community activities and public information efforts contribute to recruitment and placement efforts.

Special student transportation arrangements must be made in order for students to attend classes as scheduled. The Director of the Agriculture program works with the Director of Transportation to insure that the transportation schedule is worked out to the best advantage of the students.

Many of the operational costs of the progrm are realized by sales of services or products which are by-products of the instructional program. This includes the sale of shrubs, plants and flowers, services provided to the Metro Parks system for repair and maintenance of small machinery and equipment, and services and activities provided at the City Zoo. Use of borrowed equipment and donated equipment and materials help keep direct program costs to a minimum.

Some of the most viable characteristics of the program include:

- the adminstrative organization;
- the break from tradition of every teacher having a classroom and/or shop in the school facility itself but rather working in the training locations directly (i.e., the Zoo) and physically reporting to the school only when needed for staff meetings, instructional resource development, etc.;
- the working relationships with the Director of Transportation to meet the needs of students;
- the special working relationship developed with other governmental agencies such as the City Zoo and the Metro Parks;
- the instructional program which prepares students for agricultural career opportunities available in urban areas;
- the recognition of student achievement through an awards banquet and scholarships provided by the Garden Club;
- the individual student recruitment and job placement efforts of individual teachers; and,
- the outstanding program planning and coordination of the total program as an integral part of the total public school program.

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