A literature review examined the legislation to eliminate sex bias and stereotyping in education and the guidance and counseling curricula and programs that are integral components of the legislation. Six questions guided the preparation of the review: (1) How have legislative initiatives intended to reform education affected the career development of adolescent females?; (2) Are adolescent females affected by sex stereotyping and bias in education?; (3) What career development competencies do adolescent females need in order to make a school-to-work transition?; (4) What is the status of guidance and counseling curriculum models and practices used to enhance the career development competencies of female adolescents?; (5) What partnerships exist to facilitate the career development of adolescent females?; and (6) What is the role of the school-to-work initiative in serving the needs of adolescent females? The review identified the following necessary elements of a comprehensive career development program for adolescent females: the role and responsibilities of the middle school; the physical and mental stages of adolescent females; learning styles; internal and external barriers and facilitators to education and career planning; and the effect of assessment tools. Based on the review, 10 questions for critical inquiry that should be addressed by educators were formulated. Examination by educators of these questions will strengthen local guidance programs, establish the role of guidance programs for the next century, and make a significant difference for adolescent females. The appendixes contain the following: National Career Development Guidelines for middle and junior high school student competencies and indicators for self-knowledge, educational and occupational exploration, and career planning; and 37 commercial products for testing and assessment in career exploration. (Contains 73 references.) (KC)
Guidance and Counseling Curricula and Programs Which Prepare Adolescent Females for the World of Work: Recommendations for the School-To-Work Initiative.

Dr. Carol J. Vote
Research Director

Funded by:
Title IIB Carl D. Perkins
Vocational and Applied Technology Act of 1990
Guidance and Counseling Curricula and Programs Which Prepare Adolescent Females for the World of Work: Recommendations for the School-To-Work Initiative.

REVIEW OF LITERATURE

Project Coordinator
Dr. Carol J. Vote
Colorado State University
School of Education
Funded by: Colorado Community College and Occupational Education System (contract #0617) with Title IIB Carl D. Pericles Vocational and Applied Technology Act of 1990 Funds. Project Officer: Betty Bloom

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PREFACE

On November 27, 1994, the Colorado Community College Occupational Education System, under the authority of the Carl D. Perkins Vocational and Applied Technology Act of 1990 (P.L. 101-39205), funded a project to conduct an empirical research of literature. The review literature was to examine guidance and counseling curricula and programs for adolescent females. The purpose of the review was to identify materials and methods which prepare females for the world of work. For future application of this research, a component of the project will provide recommendations for consideration by policy makers and local educators for planning, implementation and delivery of the School-To-Work Initiative. This is the literature review addressing guidance and counseling for adolescent females.
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CHAPTER ONE

Introduction

This literature review examined materials directly related to guidance, counseling, advising, and career planning associated with curricula practices and programs. The study also includes an examination of the legislation related to career guidance and counseling for females, to give the reader some insight about the foundation for the inquiry, as well as the information necessary to build on what has been documented to apply to educational reform and newly-legislated initiatives such as School-To-Work.

Research documents educators and educational materials address females differently because of their gender. Statistics report females comprise occupations which are traditional for their gender. These occupations are service-oriented and low-paying. The initial School-To-Work demonstration sites display traditional gender enrollment by females.

Having the skills to enter and succeed in the world of work assures females and males economic self-sufficiency with which to live and enjoy the quality of life they dream of for themselves and their families.

Being prepared with skills for the workforce, does not dictate that one must enter the workforce--a concern held by some when addressing the role of females. Rather, it acknowledges the reality that at some time in each person's life one of the following "D's" may occur: death, disability, divorce or desertion. Also, the emerging lifestyle to which persons elect to live independently and assume full responsibility for themselves and their dependents needs to be recognized. In 1993, single parent households made up 30% of all household with children (Denver Post, 1995).

Because of these events or choices, it is essential that all persons are knowledgeable about the world of work and have applicable occupational skills.

Daily statistics reveal major differences in economic security and ability for economic self-sufficiency between females and males. Females continue to earn 70 cents to every $1.00 earned by males (Berberick et al., 1994).
Several factors affect the earnings gap:
- years and levels of education
- years and types of experience
- occupational selection
- sex role stereotyping
- sex bias

Each of these factors has a significant impact on females and each relates to their educational process. In the early grades, girls are ahead of or equal to boys on almost every standardized measure of achievement and psychological well being. By the time they graduate from high school or college, they have fallen behind. (Sadkar & Sadkar, 1993).

Girls face many obstacles during their schooling. They face lack of self esteem, sexual harassment, sexual discrimination and gender bias in the curriculum (Berberick et al., 1994).

The adolescent age span encompassing (9-14) was selected because research documents that this is a time of critical transition for females.

Growing up female in today’s quickly changing world means facing an ever-changing assortment of opportunities and challenges. Growing up has never been easy, but today, with all the pressures, decisions and conflicting expectations that confront girls, it is an especially challenging process (Berberick et al., 1994).

One of the most condemning facts of public education today is that it is not equipping tomorrow’s workers with the skills they will need to keep competitive in global economy (Carnevale, Gainer, & Metzler, 1988; Secretary’s Commission on Achieving Necessary Skills, 1991).

Six questions guided the preparation of this review of literature:

1. How have legislative initiatives intended to reform education, affected the career development of adolescent females?
2. Are adolescent females affected by sex stereotyping and bias in education?
3. What career development competencies do adolescent females need in order to make a school-to-work transition?
4. What is the status of guidance and counseling curriculum models and practices used to enhance the career development competencies of females adolescents?
5. What partnerships exist to facilitate the career development of adolescent females?
6. What is the role of the school-to-work initiative in serving the needs of adolescent females?
First, legislation specifying services and funds for the career development and occupational preparation of females was analyzed to determine the rationale for the legislation and the expectations of its effectiveness.

Second, a profile of the subject--adolescent females--was examined to give attention to the versatility and complexity of the population (general, minority, gifted and talented, physically and/or mentally challenged).

Third, the national occupational competencies and their alignment with the school-to-work initiative was examined.

Fourth, guidance and counseling curriculum models and practices which show potential to serve the needs of adolescent females were analyzed.

Fifth, external factors were identified: systems or people that bar or facilitate the process of career development for girls.

Sixth, procedures were selected to guide the methodological approach to the review. Questions to answer regarding these procedures were (a) which literature databases should be used and how appropriate descriptors within those databases should be identified; (b) which abstracts should be included in the sampling frame; (c) which sampling procedures should be used; and (d) how should the literature be organized and summarized.

Seventh and finally, an organizational format was selected. The reviewer posed several questions concerning the legislation and the terminology (guidance, counseling and advising), and then presented a discussion of the collected literature in the form of answers to these questions. (Chapter Three includes this discussion).

Analyzing the Role of Legislation

What legislation has been written and funded which addresses the needs of females to prepare for the world of work? Provisions have been written into numerous pieces of legislation over the years to include females in training and employment opportunities. Generally, minimal appropriation of funds, or none, was provided to carry out the intent of these provisions (Schroeder, 1992).

Identification of Legislation

The first critical piece of legislation written, funded and enforced for the education of females of all ages was the Title IX Education Amendment of 1972: "No person shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the education program or activity receiving federal financial assistance" (Office of Civil Rights).
Title IX was written to address the issues of girls and women being excluded from education at all levels. In 1972, in some sections of the United States, girls were not allowed to attend school beyond the eighth grade. Professional schools of medicine, law, engineering and the military academies, to name a few, were closed to women. Secondary and postsecondary vocational program enrollments displayed glaring gender imbalances.

There are six pieces of legislation: The Women’s Educational Equity Act (WEEA) of 1974; PL 101-39205 Carl D. Perkins Vocational and Applied Technology Act of 1990, Title IIB and Title IIIC; the Job Training Partnership Act (JTPA) options 8% Education and Coordination funds; the JTPA NEW (Nontraditional Employment for Women) Act Public Law 102-235; the JTPA 1992 Reform Amendments PL 97-300; and the JOBS Programs offered through the Department of Social Service specific to the education of girls and women.

Literature Reflecting Legislation for Females

Unfortunately, enforcement of Title IX was never fulfilled. Educational institutions rarely are in compliance with this law and fewer are committed to the spirit of it. Only one in five Colorado school districts report complying with Title IX; another one fifth of districts admit being severely out of compliance (Girls Count Gender Equity Assessment 1994). Two decades after its passage, females are still choosing or channeled into occupational areas that are traditionally low-paying. Historically, women have been concentrated in the social field, an area that in its activities parallels the nurturing, supportive functions of the traditional female sex role. It is for whatever reason, most women still wind up in the so-called "pink collar" occupations (Howe, 1977).

The WEEA program supported the development of model projects designed to ensure educational equity for girls and women. Many of these projects addressed the issues of math avoidance and anxiety, science education and nontraditional occupational choices for girls and women (Wolfe, 1991).

The Job Training Partnership Act has been the nation’s primary federally funded employment and training program since it replaced the Comprehensive Employment and Training Act (CETA) in October, 1983. The Department of Labor has identified three major competency areas in which JTPA Funds may train youth:

1. **Pre-employment skills** (finding and getting a job) include awareness of the world of work, labor market knowledge, occupational information, career planning and decision-making, and job search techniques and work maturity skills (holding a job and advancing).

2. **Basic education skills** include mathematical computation, reading comprehension, writing, speaking, listening, verbal and non-verbal communication, and the capacity to use these skills in the workplace.
3. **Job specific skills** include primary and secondary proficiencies in performing actual tasks and technical functions required by particular jobs (U.S. General Accounting Office, 1977).

To qualify for the JTPA Youth Program, a youth must be 16 years of age or older and meet low-income or economically disadvantaged criteria.

The NEW (Nontraditional Employment Act for Women) serves low income or economically disadvantaged females (JTPA eligible) with a focus on single parents/displaced homemakers, and pregnant single women. These participants are individuals who are not JOBS participants and who demonstrate academic ability to enter into and succeed in academic and NTO training and are not currently enrolled in a vocational skills training program.

The 1992 Social Services JOBS program is available to new or existing JOBS participants. The individual must demonstrate academic ability to enter into and succeed in academic and NTO training and not currently be enrolled in a vocational skills training program or postsecondary education (Colorado Community College Occupational Education System, 1993).

Previous pieces of legislation had focused on "survival" for women with provisions for food, housing, medical and health, and had not included education and career planning. The recognition this omission left a significant number of women poor and unskilled resulted in the 1990 passage of the JTPA NEW Act, the Department of Social Services JOBS Act, and redirection of the Carl Perkins Title IIB to focus on nontraditional occupational training for women (i.e., in an occupation represented by 25% or less of one gender).

JTPA and Social Services funds are highly restrictive and can serve "qualified adolescent females" in a limited way. The WEEA funds are distributed to local school districts to address educational issues in math, science, and (in the 1990s) for non-traditional projects. Lack of coordination with the Perkins Equity funds has minimized the impact of the WEEA resources. Title IIB and Title IIIC Carl D. Perkins Funds were established for the sole purpose of assisting females and equalizing the workforce. Chapter Three will provide an in depth review of the Carl D. Perkins Legislation.

**Analyzing Role of Legislation: Summary**

The legislative action of the 1990s to enact specific pieces of legislation which target occupational training and career planning for girls and women serves as a model by which to analyze the role of legislation. It became apparent to lawmakers that half of the human race—women were not being provided sufficient education to go to work.

Americans believe in education. The popular aphorism "get an education--get a good job" represented an integral part of the national mythology for generations before the
empirical relationship between education and occupational attainment was formally demonstrated by Blair and Duncan (1967, in Fitzgerald, 1985).

On what type of training and in what occupational areas is 1990s legislation focused? For adolescent girls, the 90s legislation provides guidance and counseling programs essential to career planning, to prevent girls from concentrating on "pink collar" occupations and a life of limited economic resources.

Importance of Terminology

Why is terminology important to this project? First, it was necessary in extracting documentation. Second, as the terms apply to models, the author felt it important to distinguish the intent or interpretation of the terms in the selection of their professional titles (guidance counselor, counselor or advisor) as well as the modes they designed and delivered (open-ended, structured, planned, consequential, preventive or reactive). Dual titles (e.g., instructor/advisor) created other models to be discussed.

Definition of Terms

Guidance: A guiding; direction; also, a guide.
Counseling: Advice; mutual deliberation; prudence; deliberate purpose; design.
Advising: To give advice; to counsel; warn; to give information or notice.

Literature Reflecting Application of Terms

Guidance and counseling in U.S. schools emerged in the early 1900s as one manifestation of the broader movement of progressive reform. From those early years until the late 1950s, guidance and counseling in the schools continued to evolve, influenced by various professional and societal movements, the efforts of many people, federal and state legislation, and substantial advances in theory, practice and resources. Spurred by the passage of the National Defense Act of 1958 (PL 85-864), guidance and counseling became firmly institutionalized in the elementary and secondary schools of the United States.

Organizationally, during the 1960s, guidance and counseling was institutionalized in the position of school counselor. In turn, the position of school counselor was grouped with other similar positions--school psychologist, social worker, nurse--into an organizational structure called pupil or student services within guidance services. The work of the school counselor consisted of individual counseling, small group counseling and group procedures, and consultation with parents and teachers, along with the supplementary services of appraisal, placement and evaluation.

The organizational placement of the school counselor in the framework of pupil personnel services often resulted in school counselors performing ancillary administrative roles. It also tended to separate from direct and substantial involvement in the major mission
of the school: development of students' personal, social, educational, and career needs (Gysbers, 1994).

Beginning in the late 1960s, the call came to reformulate guidance from what had become an ancillary, crisis-oriented service, mixing school management tasks with student development tasks, to a comprehensive developmental program focusing 100 percent of school counselors' time on student development issues and concerns. Guidance and counseling were called upon to be equal partners with other educational programs. This call came from renewed interest in vocational career guidance and career development—and the prevailing approach to guidance in the schools.

Comprehensive developmental guidance and counseling programs began in earnest in the early 1970s. Dramatic progress was made in the 1980s and continued to unfold. During the 1990s, there was overlap between the terms guidance and counseling and their application (Gysbers, 1994).

The terms advising and advisor appeared restricted to use with an older postsecondary student population or with programs serving minority students (King, 1992).

**Importance of Terminology: Summary**

The title of the guidance and counseling position and the understanding of the responsibilities expected of the position have been instrumental in the evolution of the guidance and counseling program in U.S. education systems.

As Gysbers (1994) points out, the emergence of guidance and counseling in the 1950s was the result of education responding to multiple calls for reform. The timing of the focus on vocational and career guidance and counseling was spurred by the passage of the National Defense Act, when lawmakers and society became aware the U.S. was not globally competitive. But it did not occur until the late 1960s--almost a decade after the passage of the Defense Act.

The review of literature presents a chronological, linear overview of the position of school counselor and related programs. Literature of the 1970s focused on education. Researchers and authors of the 1980s focused on societal issues—substance abuse, teen pregnancy, the feminist movement, and equity issues such as race, culture, and ethnicity. Materials for the 1990s is focusing on sexual harassment, teen suicide, heavy metal, cults, sexual orientation, violence, and conflict resolution.

During the 1970s, vocational education and career planning were well researched and documented. Attention was given to the vocational and career opportunities for females—some specific to adolescent females during this time. In the 1980s, research for adolescent females was directed solely to teen pregnancy and continued to reflect this pattern into the 1990s.
The vocational and career development of adolescent females does not appear to be the focal point of the 1990s guidance and counseling programs. First, little is being written and documented on such programs in the 1990s. Second, the available documentation reflects a return to crisis guidance and counseling programs and the use of school counselor positions for ancillary purposes.

Methodological Approaches

The Nature of the Literature

Chapter Two contains information about how the literature review was conducted. Preliminary screening of the relevant literature to define its parameters suggested that the bulk of it was theoretically based. This theoretically based literature included position statements, discussions of perceived needs and proposed solutions, philosophical views or arguments, and non-empirical descriptions of current projects. These publications were typically presented "best guesses" to problems related to guidance, counseling for career planning, vocational skill preparations, and educational reform meant to prepare students to compete in the world of work.

Unfortunately, only a handful of empirically based manuscripts, specific to narrow topics, appeared in the preliminary screening of the literature. These were largely dated descriptive surveys and reports. Reported experimental studies were extremely limited preliminary information about guidance and counseling curricula and programs for adolescent females affected the review process.

Organizational Format

After considering a variety of formats, the selection for the format for this research was determined after consultation with the project's technical advisor. It was decided to use a four chapter format, analogous to a report of primary research. This first chapter contains an introduction to the literature review itself, and concludes with a presentation of the problem statement, focus questions and technical information that guided the review process.

Chapter Two contains methodological information on the mechanics of the review, the sampling frame of theoretical and empirical literature, the literature databases, descriptors, etc. Chapter Three presents the results of the review, and is organized around six focus questions. Chapter Four summarizes the results and includes recommendations relating to issues critical to preparing adolescent females for the world of work.

Problem Statement

One problem statement informed this review. Are adolescent females being prepared to enter and succeed in the world of work through guidance and counseling curricula and programs?
Focus Questions

To address this problem statement, six questions were developed. Data collected through the review process were organized around these questions.

1. How have legislative initiatives intended to reform education, affected the career development of adolescent females?

2. Are adolescent females affected by sex stereotyping and bias in education?

3. What career development competencies do adolescent females need to make school-to-work transitions?

4. What is the status of guidance and counseling curriculum: models and practices that are used to enhance the career development competencies of female adolescents?

5. What partnerships exist to facilitate the career development of adolescent females?

6. What is the role of the school-to-work initiative in serving the needs of adolescent females?

Limitations

The reviewer confronted several methodological limitations. As reported in Feller et al. (1992), there is little published information on how to "review" non-empirical literature. Most reference texts focused on social research methods. The chapters in these texts dedicated to the literature review process were minimally developed and solely concerned with how to use electronic literature databases and abstract material from acquired literature. None gave guidelines for synthesizing the abstracted information.

A second limitation was the lack of quantitative data relevant to the research topic. Writers address the total population of adolescents, without distinguishing between females and males.

Two other factors limited this review: The number of accessible literature databases was small, and the definitions of the descriptors varied from one database to the next. As an example, in the ERIC database, curricula was not a key word when used with guidance and counseling.

Finally, this review was constrained by the delay in the identification of topic, allocation of budget, and time constraints dictated by the terms of the contractual arrangement mentioned in the Preface.
Delimitations

Data collection for this review was gathered by using electronic database searches, direct requests for papers and publications presented at conferences, and the collection of newsletters and numerous working papers from multiple state and national groups and practitioners currently addressing either educational reform or topics related to this research. These searches and acquisitions identified relevant literature from both published and unpublished sources.

Of the documents identified through electronic search procedures, only those with publication dates of 1985 or later were selected for primary use. References published prior to 1985 were used as background information to help, for example, in selecting the theoretical framework and procedures for the review.

Assumptions

It was assumed that the electronic databases contained a representative sample of theoretical and empirical literature on the concepts of guidance and counseling curriculum and programs for adolescent females. It was also assumed that the key words used in the databases represented the concepts sought.
CHAPTER TWO

This chapter describes the sampling design employed by the reviewer. It explains the techniques used to collect the literature and to reduce the number of references from a large, general set to a smaller set or to discover the limited number of resources relevant to the review. Procedures used to analyze and summarize the literature are provided.

Sampling Design

This literature review comprises published and unpublished writings that contain information on the subject of guidance and counseling curricula and programs which prepare adolescent females (as they are defined in the previous chapter) for the world of work. The sampling frame or accessible population of literature was derived from electronic databases and other purposefully selected primary sources of professional writings. Not all available electronic databases were searched. Judgment was used to determine which databases would be likely to contain substantive sources with theoretical or empirical findings regarding the subject of guidance and counseling curriculum and programs affecting the career planning and preparation of adolescent females.


The set of basic descriptors used to identify sources from the various databases were guidance programs, counseling curriculum, middle school, females, adolescent females, girls. These descriptors formed the primary set of terms directing the search. Also used in the search were other descriptors specifically relating to preparation for work were vocational career planning, school-to-work, work programs, vocational guidance, U.S. education. Each of the basic descriptors was then combined with variable combinations guidance curriculum, guidance programs, counseling programs, guidance and counseling curriculum, guidance and counseling programs, career planning, guidance models, research females--counseling, advising, counseling ratios, counselor/student, counseling techniques, counselor bias--sexism, sex equity--career/family choices, ID Status inventory, gifted/talented girls, minority females, middle school guidance, career education, and education reform. Boolean R logic was used, combining descriptors with and, or, and not statements to sort through documents in databases. This logic was then used to combine most of the terms with 'or' statements and then to impose the limitations of girls, counseling, guidance, advising, career development, work with 'and' statements.
With most literature databases, more than one search was used. The "germaneness" (Slavin, 1984, 1986) or "concepts to operations congruence" (Cooper, 1984) of the output from each preliminary search dictated the extent to which successive interactions with that database were conducted. For example, in many databases, the term girls yielded articles relating to sex education, puberty, and narcissism. Specific areas such as minority females yielded articles relating to black female athletics or Hispanic culture. These were eliminated from the review because the articles did not offer information relevant to the review, and other descriptors were entered, in the search to produce a more germane literature set.

Even with the multiple descriptor combinations, only 30 research documents were deemed to be directly pertinent to this review. Reviews were made from available hard copies or abstracts of these documents. The abstracts and hard copies of related subject descriptors were added and reviewed. The citations within the review of literature reflect the hard copies, abstracts, and undocumented related materials located and read by the reviewer.

The written format of this review is generally consistent with guidelines in the Publication Manual of the American Psychological Association (1994).
CHAPTER THREE

Problem Statement

One problem statement informed this review: Are adolescent females being prepared to enter and succeed in the world of work through guidance and counseling curricula and programs?

Focus Questions

To address this problem statement, six focus questions were developed. Information presented in this chapter are organized around these questions:

1. How have legislative initiatives intended to reform education, affected the career development of adolescent females?
2. Are adolescent females affected by sex stereotyping and bias in education?
3. What career development competencies do adolescent females need to make school-to-work transitions?
4. What is the status of guidance and counseling curriculum models and practices that are used to enhance the career development competencies of female adolescents?
5. What partnerships exist to facilitate the career development of adolescent females?
6. What is the role of the school-to-work initiative in serving the needs of adolescent females?

Focus Question One

“How have legislative initiatives intended to reform education impacted the career development of adolescent females?” To address this question, literature that describes the intent and impact of vocational and career legislation for females was reviewed.

Intent of Legislation

The Vocational Education Amendments of 1976 directed vocational education to create an equitable learning environment for both males and females. Now, nearly two decades later, statistics indicate that few changes have occurred in vocational, technical, math or
Science enrollments and placements. Hence, when the Vocational Education Act was rewritten, the new Carl D. Perkins Vocational and Applied Technology Education of 1990 stipulated and appropriated funds for Title IIB subpart 1, Section 222 Sex Equity and Title IIIC, Section 322(c) Comprehensive Career Guidance and Counseling Programs. Both Title IIB and Title IIIC were established to meet the purpose of the Act: "to make the United States more competitive in the world economy by developing more fully the academic and vocational skills of all segments of the population".

Title IIB is intended to ensure that the needs of women and men for training in nontraditional jobs are met. From the total budget allocated to a state, 3% or 3.5% (the .5% is optional) is to be used for (1) programs, services, comprehensive guidance and counseling, and activities to eliminate sex bias and stereotyping in secondary and postsecondary vocational education; and (2) preparatory services and vocational education programs, services and activities for girls and women, aged 14 through 25, designed to enable the participants to support themselves and their families. (The age range of the participants can be lowered and/or raised at the discretion of the State Sex Equity Coordinator, to correct gender imbalance within approved vocational programs).

Title IIIC is intended to ensure that 20% of the sums made available to a state under this part shall be used for programs designed to eliminate sex, age, race bias, and stereotyping, and for activities to ensure that programs under this part are accessible to all segments of the population including women, the disadvantaged, the handicapped, individuals with limited English proficiency, and minorities.

Impact of the Legislation

The passage of the 1972 Title IX Amendment can be attributed to shifting patterns in education and training. Higher education and training are the principal means by which women attain career advancement and greater employment status:

1. About one fourth (24%) of adult female workers age 25 and older were college graduates in 1989, up from 17.6% in 1979.

2. Women are less likely to be high school dropouts than men: 14% of the female population 18-21 years and 16% males were not high school graduates in 1989.

3. Since the mid-1980s, women have outnumbered men in graduate school (U.S. Department of Labor Women’s Bureau, 1993).

Unfortunately, despite the strong positive relationship between education and women’s vocational participation and occupation attainment, women, like other minorities, have been unable to translate their education into the same financial and status benefits that accrue to white men (Fitzgerald, 1985).
Leaving aside the male-female comparison, there is less than perfect agreement on the kinds of vocational training that brings the most return to female workers. Despite some gains for women in the general market place, much remains to be done (Grasso and Shea, 1977).

Women constitute a majority of the eligible participants in the Federal Job Training Partnership Act (JTPA) program, because they constitute a disproportionate share of the economically disadvantaged population (Women's Agenda, 1994).

At all educational levels, the gap in labor force participation rates between black and white women narrowed considerably during 1979-1989 decade; the gap increased, however, between Hispanic and white women (U.S. Department of Labor Women’s Bureau, 1993).

In both 1979 and 1989, men with only an elementary school education earned as much or more than women high school graduates. Male high school graduates earned more than women with 1 to 3 years of college (U.S. Department of Labor Women’s Bureau, 1993).

In 1995, local and state vocational program secondary and postsecondary enrollments still reflect significant gender imbalances in all areas including emerging areas such as the School-to-Work Initiative (STW). In the STW demonstration sites, there are no young women at all in 3 of the 14 demonstration sites and only one or two in three other sites. Thus, 6 of the 14 regular demonstration sites have either none or very few young women. Across the 14 demonstration sites, there are fewer young women than young men overall; they make up only 42% of the site participants. Most revealing, however, is that 90% of the young women are clustered in the last 5 demonstration sites, and in the traditional female occupational areas of allied health careers, teaching and education, graphic arts and office technology (Milgram and Watkins, 1994).

Studies have shown that women and nonwhites are less likely than white males to receive training in a firm through apprenticeships or through other forms of on-the-job training (U.S. Labor Department Women’s Bureau, 1993).

The battle against the pernicious effects of sex role stereotyping has been pursued with great vigor throughout the late 1970s and early 1980s. Over the last 10 years, Resources in Education has indexed well over a 1,000 titles on sex equity in education. They state that it is clear that sex equity continues to be a critical issue for vocational education (Fitzgerald, 1985). The relationship of the issues of sex equity in vocational education is further affected by the goal which was most clearly characterized vocational education as distinct from other forms of education is to help prepare individuals for gainful employment at a level beyond unskilled labor. Though the overall goal of vocational education is relatively clear, such clarity has historically not extended to its results (Wood, Harvey, Merten, 1984).

Grasso and Shea (1979) also reported no labor market advantage for male vocational graduates. Similarly, a review of the major longitudinal surveys (Lewis, 1984) concludes...
that, while business and office preparation reduces unemployment and increases earnings for young women, there is no comparable effect for young men.

As a result of the reports documenting the poor to marginal impact, the original Vocational Education Act was rewritten in 1990 to address specific special populations, with gender being one of the groups. Although the continuance of specific set-asides such as Title IIB and Title IIIC was a controversial position for the House Education and Labor Committee and the Senate Labor and Human Resources Committee, they conceded to powerful lobbying groups and retained the two set-asides in the new legislation.

A criteria for the Perkins Act’s continued focus on special populations was that a study be conducted by the U.S. General Accounting Office (GAO) to determine the impact of set-aside resources. For reasons not explained, the Title IIB Sex Equity set-aside was not addressed in the final July, 1993 Report (U.S. General Accounting Office, 1993).

Interpretation of this omission by some concerns the quality of the report by the GAO. Concerns held by others committed to funding any action for gender equity were that (1) gender equity is not viewed as an issue for or by vocational education; and (2) Title IIB funds were primarily used for the adult postsecondary population of displaced homemakers, single parents and pregnant single women, and were not perceived by the GAO as relevant to the secondary level study. Either way, the absence of research by the GAO and others documenting the impact, if any, by the Title IIB Sex Equity Funds in the 1993 report, leaves a major void between the 1985 Fitzgerald research conducted by the Ohio State University National Center for Research in Vocational Education, and the GAO Study.

What has happened? Has the legislation made an impact? In the absence of direct research, answers to these questions may be reflected in the 1993 Handbook, U.S. Department of Labor Women’s Bureau, page 29:

1. The wages of working women did not increase relative to those of working men between 1920 and 1980 because the skills (as measured by research and experience) of working women did not increase relative to men over this period.

2. The average wages of the entire population of women, however, have increased much faster than the wages of men during the last 60 years. At the same time, the market skills of the entire population of women have risen much more rapidly than the skills of men.

3. Although largely unrecognized, women’s wages (relative to men’s) jumped by a large amount between 1980 and 1983.
4. Defined either in terms of overall female workforce or the entire population of women, the economic status of women is going to improve significantly to that of men over the next 20 years.

Which piece of legislation takes credit for these changes and forecast could be debated. The Department of Social Services JOBS Program and the JTPA Basic Skills Legislation are recognized and relied upon by local service delivery agencies (SDAs) as the funders for employment and training programs. Carl D. Perkins is not viewed by local SDAs as a training and employment program. The Perkins funds are viewed as "supportive services" e.g., personal and career counseling, child care, transportation, tutorial, etc., to assist women to prepare to enter school. Use of the Perkins solely for "supportive services" was not the intent of the Perkins Legislation.

Further reasons the Perkins Sex Equity Funds are not recognized as training and employment resources have been the move across the states to expend the Perkins funds on personnel time and for resources on 'related' equity issues such as compliance with Title IX, sexual harassment, and comprehensive equity (race, culture, ethnicity, sexual orientation, women's health to name a few). This move is distinct and distant from the mandate of the law, "ensuring that the needs of women and men for training in nontraditional jobs are met."

The Women's Educational Equity Act (WEEA) was viewed as a resource for local, isolated projects. Where applied, and for the duration of the funding documented, the WEEA funds made a difference. As with other Federal funds, the WEEA funds were not held accountable to coordinate with other Federal resources, such as the Carl Perkins Title IIB Sex Equity funds although the purposes of the funds were identical. For this reason, the WEEA funds were applied for and distributed to local school sites, generally bypassing the school district and state. The result served the purpose of a local site but did nothing to address the needs of the district or support state initiatives for systemic change.

Documentation supporting the impact of legislation on adolescent females is literally nonexistent. The population of adolescent females is collapsed into the total population of youth (age range 14-19) as identified and reported by the respective pieces of legislation, and therefore lost.

**Focus Question One: Summary**

The first focus question asked, "How have legislative initiatives intended to reform education, affected the career development of adolescent females?" Given the most recent evidence from the literature and the philosophical framework for this review, female adolescents would be affected only in a circumstantial way.

Adolescent females are excluded from the JTPA NEW, the Department of Social Services JOBS Programs, and the 7 or 7.5% Perkins Sex Equity Funds, because of age. Likewise, the 3% Perkins Sex Equity Funds may restrict services for females younger than
age 14 (including adolescent females) because of the age stipulation "14 to 25 years," unless the state has requested and received a waiver to serve the adolescent range (9-14) reviewed for this study. In most cases, states have filed and been granted waivers.

The place in legislation for the adolescent female falls in the same manner as much of the earlier pieces of legislation for women. There was intent, but without specific mandates and funding, the intent was never fulfilled.

The six specific pieces of legislation which target career planning and occupational training for women are exclusive rather than inclusive. Not only do these pieces exclude adolescent females, they exclude women who are "self-initiators"—women who independently enroll in vocational training to acquire or upgrade a skill, thereby increasing their ability to become economically self-sufficient.

The legislation encourages a separate rather than integrated approach. Carl D. Perkins offers two fund sources to provide a comprehensive counseling and guidance program for adolescent females, through the provisions of Title IIB and Title IIIC in the block grant resources. Neither state nor local plans demonstrate the collaboration of these sections. Rather, they speak independently of one another. Functioning as a separate set-aside leaves an area such as Sex Equity isolated. The intent of the Perkins Legislation was for Title IIB to make an impact in vocational education. As it is omitted from the GAO Report, the importance of Title IIB is questionable.

The legislation is reactive rather than proactive by directing the majority of available funds and energies to adult women rather than younger females. Where local initiatives for adolescent females have been implemented as measures of prevention, girls respond to career information and opportunities to explore career options. Regarded by some as "local band aids," in quantity these local initiatives have the potential to make systemic changes—as noted in the forecast of Women's Earnings and Income by the U.S. Department of Labor Women's Bureau.

Focus Question Two

"Are adolescent females affected by sex stereotyping and bias in education?" To answer this question, the reviewer looked at literature that addressed forms of stereotyping and bias, and a profile of the adolescent female population as a composite, acknowledging attributes such as race, ethnicity, culture, and designations such gifted and talented, and physically or mentally challenged.

Forms of Stereotyping and Bias

As defined, sex stereotyping is the labeling or assigning certain tasks, responsibilities to persons on the basis of their gender. For example, the tradition of education requiring girls to take home economics and boys to take shop was provided them to learn skills to
prepare for adult roles. In sex bias, one gender thinks it is better than the other, thereby creating a role of dominance. Because of sex bias and stereotyping, information about and access to (as well as achievement in) educational programs and related activities are often restricted. Sex bias frequently results in sexual harassment, which serves as an additional barrier to educational opportunities and achievement (CDE, 1994).

"Sexual harassment is unwanted, unsolicited and unwelcomed sexual behavior which interferes with a person's life, education and work and is a major problem for many girls. Not unlike their adult counterparts in the workplace, children in school experience unwanted advances. Students, however, are required by law to remain in school, and thus have the right to be safe there. Beyond a doubt, we know that sexual harassment in the classroom and hallways of America's schools is a major problem—one we can no longer afford. Unchecked, it will continue to deny millions of children the educational environment they need to grow to healthy, educated adults" (AAUW, 1992).

Nearly one out of four students report not wanting to go to school after being harassed. The same number said they stayed home from school or skipped a class (Berberick et al., 1994).

Everyday sex stereotyping and bias in education occur in situations not as hostile as sexual harassment but affecting students as negatively. Unfortunately, these situations develop as deliberate, subtle, or ignorant actions in the educational setting and can be traced to students, counselors, instructors, administrators, and service and support personnel.

Deliberate situations reported by girls enrolled in a Colorado Vocational Technical Center are examples of sabotage: In an automotive class, oil was poured over the engine and parts of a car a girl had worked on prior to the teacher's examination for a clean/overhauled engine. Too often such an incident is brushed aside by educators as "boys will be boys", rather than examining why. Was it a prank or is there a feeling that girls do not belong in the program? Either way, the need for educators to sensitize the genders to recognize and appreciate the interests and abilities of all is essential to establishing an equitable learning atmosphere. It is disheartening to hear reports of deliberate action more than 20 years after the passage of legislation for gender equity reform.

Subtle bias and situations caused by ignorance are often overtly apparent and frequently driven by attitudes and expectations. On a fall night in September 1994, parents and teachers gathered at an upper-middle-class high school in the Denver metro area for a back-to-school night. The parents of 19 students in a sixth period trigonometry/pre-calculus class joined the teacher in his room. A parent of one of the three girls in the class asked the teacher why there were so few girls in the class. The teacher responded that considering the math class was so advanced, it was probably not something most of the girls would have any use for in their lives since most of them would probably do what their mothers did (Berberick et al., 1994).
Inequities also still exist in the classroom in the areas of written and spoken language. Girls receive inappropriate messages about females in curriculum materials. In the 1970s publishers issued guidelines for equity in depicting females in textbooks. But textbooks continue to have more examples of males as role models and show them doing more creative and inventive things. Females still remain in the background or are pointed out in a token manner as the "only" or "the first". Of the ten books most often taught in high school English classes, only one was written by a woman and none were written by people of color (AAUW, 1991).

In textbooks, girls are exposed to almost three times as many boy-centered stories as girl-centered stories. Boys tend to be portrayed as clever, brave, creative and resourceful, while girls are depicted as kind, dependent and docile (Pipher, 1994). Textbooks, in many instances, were less subtle than tradebooks in perpetuating these theories and stereotypes (Wolfe, 1991).

Oral communication in the classroom discourages girls' participation. Teachers are more apt to call on a boy who is speaking out than a girl who is raising her hand. If the girl does speak out, she is often told to raise her hand. Also, teachers tend to draw out responses from boys, whereas they accept girls' responses at face value. The problem may be even worse for African-American girls. Though African-American girls attempt to initiate interaction more often, they have fewer interactions with teachers than do white girls (AAUW, 1994).

One of the reasons girls sometimes underperform is that they don't feel the same kind of entitlement as boys. When they aren't called on, they get discouraged and let someone else answer the question--usually the someone else is a male (Mann, 1994).

Says Jad Wiga Sebrechts, director of the Washington, D.C. Woman's Coalition: "Girls don't go for the brass ring," "and later on you see the results, with women being segregated professionally, earning much less on the dollar than males and not able to provide for their families the way they'd like to because women opted out or were not encouraged to pursue those skills or disciplines that translate into good-paying jobs. They end up being economically very hard hit. The consequences of this underperformance affects all of society".

Frazier and Sadkar (1973) observed that teachers' and counselors' lower expectations for girls have an impact even when they are not explicitly stated. Differentiated behavior because of gender and/or socio-economic status has a substantial impact on the self-concept of the student, and over time, affects achievement, motivation and levels of aspiration.

There has been little change in sex-segregated enrollment patterns in vocational education. Girls are enrolled primarily in secretarial, child-care provider and cosmetology programs; boys are enrolled in programs leading to higher-paying jobs in the trade and
technical areas. Reasons for this enrollment pattern have been attributed to gender bias, interest, assessments, lack of information about career options, sex bias and stereotyping by counselors and vocational program instructors, peer pressure and parental disapproval (Berberick et al., 1994).

One of the myths of the American education system is that, at least within the same school or classroom, all students receive the same quality education. The startling reality is that even in the same classroom, girls are not getting the same quality and quantity of education as their male peers. Fewer than one quarter of Colorado school districts have a gender equity self-evaluation plan. Only two fifths of districts evaluate teachers for gender bias (Girls Count, 1994).

Girls enter elementary school outperforming boys in every area. It is during these early years that girls develop both their attitudes toward different subjects and their own academic expectations. Girls participate in fewer hands-on demonstrations and spend less time using classroom computers and lab equipment than do boys (Sadkar, 1993).

In general, both girls and boys enter middle school feeling good about themselves. They are assertive and confident in their abilities. Girls, however, experience a more profound and detrimental drop in self-esteem than boys as they move through the middle school years (Sadkar, 1993).

Educational climates not responsive to girls' needs and interests can erode their self-esteem. This loss can limit a girl's ability to imagine and achieve success in school. Ambivalence about puberty's physical changes, and a perceived conflict between being smart and popular often serve as catalysts to the breakdown of girls overall self-esteem (Gilligan, 1982).

Six out of 10 girls entering middle school report liking who they are. By the time they graduate from high school, fewer than 3 out of 10 girls report feeling good about themselves. Half of all boys retain high self-esteem through high school (AAUW, 1991).

Achievement in math, science, and technology strongly relates to adolescent self-esteem. Cultural stereotypes that teach girls they are not good at math, science, technology, trades undermine academic self-esteem. Adults tend to hold low expectations for girls' performance in math, science, technology or their ability to select and prepare for a career which will result in self-sufficiency. These attitudes often translate to girls' low expectations for themselves. Even when there are no differences in ability, girls report feeling less confident about their skills and decisions than do boys. When girls experience academic difficulties, they are more likely than boys to interpret those problems as personal failures (Sadkar, 1993).

What is known is that girls who thrive in school are more likely to graduate, postpone motherhood, enter the workforce, and secure jobs that will allow them to be self-supporting.
On the other hand, the clearest predictors of impoverishment for women are dropping out of school and teenage pregnancy, which are frequently preceded by failure to achieve in school (Girls Count, 1994).

Profile of the Population

The design and delivery of guidance and counseling curricula and programs to serve the needs of female adolescents are dependent upon the understanding of the population of adolescents and females.

Adolescents: The period of adolescence is a stand-alone timeline in the cycle of life. Adolescents are no longer children, nor are they yet adults. Adolescents of the 90s experience conditions dramatically changed from previous generations, because the world is being rapidly and significantly transformed by science and technology (Carnegie Council on Adolescent Development, 1989).

The area of physical growth becomes such a major concern for young adolescents that it has a profound impact on social interactions, emotional well-being, and academic achievement.

As children move into young adolescence, sexual changes begin to occur. The interest in these changes, coupled with other physical changes, creates a volatile and fascinating set of circumstances. Young adolescents often think and worry more about their development, or the lack thereof, than they do about academic tasks (Smith & Hausafus, 1994).

Physiologists traditionally have focused on early adolescence as a time when abstract reasoning begins to emerge and when students begin to think about their own thoughts. This thinking about thinking may be one of the most critical milestones in young adolescent development (Smith & Hausafus, 1994).

As emphasized in a monograph (Van Hoose & Strahan, 1988), one of the most important aspects of early adolescent reasoning development is reflective thinking. While younger children sometimes grow frustrated when they find they cannot solve a particular problem, they rarely dwell on their frustrations. Middle grade students grow more and more aware of not understanding and have a much greater tendency to personalize their lack of understandings and feelings. Introspection thus becomes a mixed blessing, bearing newfound powers to think about thoughts and, at the same time, a likelihood for dwelling on frustration.

Individual differences in environment and experience create tremendous variation in both the timing and nature of cognitive development. The studies of Strahan (1982) found that early adolescent thinking is sometimes linear and sometimes nonlinear. At times, students demonstrated thought patterns—abstracting patterns and experimenting logically. At
other times, they visualized solutions in a less logical way or relied on personal experiences to reach solutions.

To understand more about the ways young adolescents think, educators need to be aware of gender differences in reasoning development.

**Gender Differences**

Women not only define themselves in a context of human relationships, but also judge themselves in terms of their ability to care. Discrepancy between womanhood and adulthood is evidenced in sex role stereotyping. Several qualities are deemed necessary for adulthood: (a) capacity for autonomous thinking; (b) clear decision-making; (c) responsible action association with masculinity and considered undesirable attributes of the feminine self (Gilligan, 1982).

Gilligan cites the concept of achieved motivation studied by David McCelland (1975) when examining the attributes of the feminine self and its relationship with peers and family. McCelland states the logical components of achieved motivation (a) a motive to approach success (hope for success); (b) a motive to avoid failure (fear of failure); (c) unlikely motivation to avoid success (fear of success).

Women have problems with competitive achievement, from a perceived conflict between femininity and success (Gilligan, 1982).

The studies of Freud also talk of this conflict. In the female adolescent years, there is the problem of interpretation of relationships of loyalty to fairness - e.g., 'the right thing to do' - the silenced voices a girl has. There is a sense of vulnerability "to take a stand." The conflict to exercise choice and the willingness to accept responsibility for the choice (Gilligan, 1982).

**Differential Attributes**

The review of literature pertinent to adolescent females was expanded to encompass the differential attributes of the female population: race, ethnicity, and culture, and various determinations of gifted and talented, physical or mentally challenged. This was done in response to requests from members of the project advisory committee, to assure that a comprehensive review of all females was provided.

The differential attributes have a major significance on the female adolescent because a girl needs to recognize and establish a balance for her life around her gender and one or more differential attributes: her race, ethnicity, and culture, whether she is gifted and talented or physically or mentally challenged. To include this comprehensive approach distinguishes this from other reviews which have dealt with gender separate from the attributes.
The disturbing conjunction of the trends of (a) sex stereotyping and bias in education, (b) high minority group birth rates, (c) high minority group dropout rates, and (d) increased educational demands resulting from a society rapidly becoming more technology based produces a disturbing picture of a future American society. Will we be a society of haves and have-nots? Is there a possibility of an educational system with accompanying polarization of America along gender, ethnic, and racial lines?

While the public educational institutions in the United States are battered and frayed, it must be remembered people expect a great deal from them. Institutions are expected to operate in a heterogeneous, multicultural society that operates on the assumption that all of its members ought to have access to public education. Educational institutions are expected to eliminate historical disadvantage by providing opportunity (Pederson & Cary, 1994).

To accomplish this task, people first need to recognize that there is no such thing as the American culture--there are a number of American cultures. American education must embrace students' cultural diversity. This country's educators need (a) an explicit understanding of how old assimilation models of education can damage students, (b) a sensitivity to ways in which students' cultures interact with school institutions to effect self-concept, persistence, and achievement, and (c) knowledge and skills that will enable educators to actualize their multicultural understandings (Pederson & Cary, 1994).

Although barriers to educational advancement for Hispanic women, for example, have been identified, there are few theoretically based studies that have examined the relationships among these findings.

Only passing attention usually is given to the educational and employment status and needs of women of color. It is generally focused primarily on African-American women and involves analyses of employment by race and sex. Thus, policy recommendations often do not take into account the differential status and needs of women from different racial/ethnic groups.

"A Study of the Chicana Experience in Higher Education" (Munoz & Garcia-Bahne, 1978) revealed that Hispanic women received higher grades than Hispanic men both in high school and college. However, the rate of persistence to graduation is much lower for Hispanic women than for Hispanic men, and this dropout rate was associated with the income level of the family.

Additional findings related to motivation and self-expectations demonstrate that over half (55%) of all Hispanic students surveyed did not begin to consider attending an institution of higher education until the eleventh grade or later and that more than 26% of these Hispanic students did not consider going to college until the twelfth grade or later (Wolfe, 1991).

Finally, discussions of traditional versus nontraditional employment often overlooked the fact that occupations considered traditional for white women might represent new frontiers...
for some women of color and vice versa. Systematic attention to the issues of combined race and sex segregation both in schools and in the workplace may provide some new perspectives and strategies to benefit not only women of color but also white women and men of color. This perspective can be infused into considerations of all issues affecting women to ensure that the diverse needs of African American, Latina, Native American, and Asian American and Pacific Islander women are addressed (Wolfe, 1991).

Although girls or women were not mentioned per se in the Black Agenda for Career Education (Roosevelt, 1974), contributing authors Melvin Sikes states, "I am deeply disturbed by the negative implications of career education for minorities--but more especially the Negro or Black American. This feeling is founded in historical fact and recognizes the unique but profound psychological impact that white racism has had upon the Negro." (p. 17)

The race of the student does make a difference in this country as to what career education is apt to do for students, irrespective of what some white educators are saying (Roosevelt, 1974).

Culture values and practices influence the way pupils respond to authority, whether they work better in groups or as individual, and whether they prefer competitive activities or activities that require group cooperation.

For example, many Native American women possess great economic power because of their relationship to the land. However, Native American girls face bias in the traditional oral classroom because of their nonverbal cultural communication. The African American has been victimized by sexism both within her own society and in the dominant culture: she has had to fight such negative stereotypes as the dominating matriarch and the castrating female. Asian women, particularly those reared under the principles of Confucius, have had to cope with the structure of a sexist society. Similarly, Hispanic women have had to cope with a society that favored male domination (Pedersen & Caney, 1994).

Roosevelt (1974) quotes Congresswoman Shirley Chisholm: "My first reaction is that career education is still designed primarily for middle and working class children and less for disadvantaged children in spite of the widely-held assumption that it will be helpful to the young from poor families. That is acceptable for those children whose relatives are actually engaged in a variety of careers. But what of those children who come from families where no one works in the traditional sense? They would have to draw picture of 'father who is (all the time) unemployed or mother who is (all the time) on welfare." (p. 33)

Lest we overlook one poignant fact, socio-economic status, caste and race are inextricably intertwined into the notion of upward mobility in this society (Roosevelt, 1974).
Gifted learners share the same basic guidance needs as other children and require ongoing developmental guidance and counseling in order to fully realize their abilities. In addition, however, because they differ widely in the type and level of their special abilities and motivations, in their learning styles, and in other personal-social characteristics, they require differentiated guidance and personalized counseling (Milgram, 1991).

Milgram (1991) regards as unfortunate the exaggerated emphasis on social adjustment problems in the counseling of gifted learners. Like other exceptional children whose development differs from the norm (for example, those who have physically handicapped, intellectually retarded, or have hearing or visual problems), gifted learners cannot maximize their abilities in a regular school program unless it is adjusted for their specific exceptionality.

Cognitive-academic needs. Gifted learners require knowledge about themselves and about their academic and career opportunities. They require complete and accurate information about options currently in with the school system, details about specific requirements for admissions, and positive versus negative features of universities and vocations they might consider in the future (Milgram, 1991).

Personal-social needs. Gifted children have special counseling needs in the personal-social sphere. Guidance should be directed to helping gifted children become aware of their special abilities, and their feelings, attitudes, values, and interactions with their family, age peers, teachers and other adults. Gifted children profit from the opportunity to explore their motivations and to examine their relationships to short- and long-term personal, academic and professional goals (Milgram, 1991).

Experimental needs. Just as gifted children require special education in the formal school setting, they need special out-of-school experiences as well. Exposure to a wide variety of task-oriented, domain-specific, real-world experiences provide additional cognitive-academic knowledge and personal-social awareness in general, and clarify career interests and values, specifically (Milgram, 1991). Additional reference to the importance of recognizing differential attributes will be addressed in the following chapters as appropriate. This limited overview was to awaken readers to the importance of looking at the female adolescent as a whole individual.

Focus Question Two: Summary

The studies conducted by the American Association of University Women (AAUW) confirm that female adolescents are negatively impacted by sex stereotyping and bias in education. Chapter Two detailed the many ways and degrees in which sex stereotyping and bias occurred as well as the related factors of the differential attributes of race, ethnicity, and culture, and the designations of gifted and talented, physically or mentally challenged, all of which may compound the sex stereotyping and bias.
A student’s first experience of sexual harassment is most likely to occur at middle school. If the student is a girl of color or gifted or has special needs or any combination thereof, the degree and frequency of sexual harassment increases. Sexual harassment creates a hostile environment for girls and can contribute to loss of self-confidence (Girls Count, 1994).

The middle school/adolescent years are "fragile" years, representing a period of "limbo"—the adolescent is not a child nor an adult. Physically, the body is beginning to mature to adult status. Concurrently, the mind is undergoing a similar growth pattern. This fluid timeline is susceptible to everything surrounding the female adolescent and frequently serves to direct her future. Gender inequities and sexual discrimination affect girls' potential for academic achievement.

Focus Question Three

"What career development competencies do adolescent females need, in order to make school-to-work transitions?" To reach a total perspective for this question, it was necessary to examine the role of the middle school and the learning styles of adolescent females.

Role of Middle School

The middle school has tremendous opportunity to positively affect the transition of adolescent females in school-to-work. It is the consensus of educators across the nation that the middle school movement has and continues to demonstrate great potential to serve as a site of major reorganization of American education, by addressing the welfare of young adolescents (Smith & Hausafus, 1994).

A concern of the reviewer is the readiness of the middle school reform to complement the implementation of the School-to-Work (STW) Initiative—the latest proposal for educational reform. This concern is based on the 30- plus years it has taken for the middle school movement to assume its identifying characteristics. The 1960s middle school movement has been slow in forming its programmatic concepts. The early movement consisted of a series of name changes and grade reorganizations. More recent developments, such as the publication of Turning Points: Preparing Youth for the 21st Century, by the Carnegie Council on Adolescent Development in 1989, have helped focus needed attention on the inappropriateness of many traditional middle level programs and practices. Turning Point strongly endorses the programmatic characteristics advocated by William Alexander, Don Eichhorn and John Lounsbury: (a) the interdisciplinary team organization with flexibly scheduled classes; (b) a teacher-based guidance program, including a teacher advisory plan; (c) a full-scale exploratory program; (d) curricula provision for broad goals and curriculum domains as areas of personal development, continuing learning skills and basic knowledge; (e) varied and effective methodology for the age group; and (f) continued orientation and articulation for students, parents, and teachers (Smith & Hausafus, 1994).
The encouraging news about the middle school programmatic characteristics is how they complement the proposed school-to-work components for adolescent students. To illustrate requires a brief summary of the STW Act. The STW opportunities system would address the employability needs of all students by providing comprehensive career development programs within the school system, actual work-based learning components, and integration of occupational and academic learning (Molzhon, 1994).

The STW is to comprise three components:

1. **Section 102--Work-based Learning.** The work-based learning component must include (a) a planned program of job training; (b) a paid work experience; (c) workplace mentoring; (d) instruction in general workplace competencies; and (e) broad instruction in a variety of elements of an industry.

2. **Section 102--School-based Learning.** The school-based learning component must include (a) career exploration and counseling; (b) student selection of a career major by the beginning of 11th grade; (c) a program of study designed to meet the same challenging academic standards established by states for all students under Goals 2000, and to meet the requirements necessary for a student to earn a skill certificate; and (d) regular evaluations to identify academic strengths and weaknesses of students and the need for additional learning opportunities to master core academic skills.

3. **Section 104--Connecting Activities.** Connecting activities are designed to coordinate programs. They include (a) matching students with work-based learning opportunities; (b) serving as liaison; (b) providing technical assistance and staff training; (c) assisting completers with placement; (d) collecting and analyzing outcome information; and (e) linking programs with employer efforts to train current workers (Center for Law and Education, 1993).

A successful merger of the STW initiative with middle school reform would fill the void that has emerged with the changing focus of vocational education and the role previously filled by the junior high school movement, which was to prepare students with entry level skills.

Unlike the junior high school, which was thought by some to be a miniature high school, the middle school is a general education institution concerned with questions widely shared among early adolescents and the larger world. Early adolescents are hardly in a position to decide what they will do in adulthood; nor are professional educators in any reasonable position to predict that. Thus, a specialized education is inappropriate for young adolescents, whereas a general one serves well the exploration of possibilities characteristic of and appropriate for this age (Smith & Hausafus, 1994).
The middle school, like other schools, has an obligation to honor the cultural diversity among early adolescents, such as that related to race, class, gender and age. Because of the physical and mental changes occurring during this period, derogatory terms such as "12 acting like 21" or as "braindead" are sometimes used. What is missing from these characteristics is that early adolescents are real people, living with real lives, in a real world. Therefore, a uniculural curriculum, or programs based upon the interests of a dominant culture, cannot be the answer (Smith & Hausafus, 1994).

The 1990s have been a turning point for renewed emphasis on first determining the needs of the student and then bringing together the resources to meet these needs.

Adolescent Female Learning Styles

A student's learning style has been identified as one of the basic needs to be addressed for education to be successful. Learning style is defined as the conditions under which each person begins to concentrate, absorb, process and retain new and difficult information and skills (Milgram, 1991)

Although learning style is highly individualized, certain learning style features characterize certain kinds of gifted and talented children. This same learning style is found in student groups who are also highly motivated, internally controlled, persistent and nonconforming (Milgram, 1991).

When learning style and school environment match, research documents higher school achievement. The understanding of learning style also helps counselors interpret interest and ability test scores (Milgram, 1991).

The counseling process begins with an assessment of individual needs and requirements for learning, including learning-style preferences, and identifies a variety of counseling approaches that are compatible with them.

Human development theories provide the framework for counseling students through their individual learning styles. Erikson (1950) has identified nine developmental stages. At each stage, the developing person is required to cope with a specific psychosocial crisis. The acquisition of relatively positive versus relatively negative personality traits reflects the degree of success with which an individual has met these challenges. The stages are (a) the middle school age stage (8-12 years-- Industry versus Inferiority; (b) the early adolescence stage (13-17 years)--Group Identity versus Alienation; and (c) late adolescence (18-22 years)-- Individual Identify verses Role Diffusion (Milgram, 1991).

Education, the central process during the elementary school years, is responsible for the development of a personal sense of industry. An improvement in career awareness will be greater if students are matched to the type of counseling intervention that is compatible with their learning-style preferences for structure and motivation (Milgram, 1991).
Adolescent learning styles were investigated among high school students by means of the Learning Style Inventory (Kolb, 1976). Comparisons were made between male/female. Freshman and senior students were assigned to slow and fast learning tracks. Learning dimensions were described as abstract, active, reflective and concrete. The results indicated that the adolescent sample tended somewhat more toward the concrete and a good deal less toward the abstract than did the adult sample. Furthermore, females were more concretely oriented than male, and more homogeneous as a group in their learnings. Seniors were more reflective, more active and less abstract than freshmen. Age, gender, and aptitude were all involved in the maturation of learning style. Adolescent high school students differed from adults to some degree in their learning styles, and there may be important differences between subgroups. Direct student activity during instruction is appreciated by the lower-aptitude and younger student (Titus, 1990).

**Career Competencies**

In order for girls to see a broad range of options for their futures, they need knowledge about themselves and about potential careers. They also need to see how their school work and extra-curricular activities link with their personal interests and goals. Life planning that is integrated into the school curriculum, including the concept of multiple roles which provide positive options for girls, is essential to prepare girls for their futures.

Girls need to learn about the essentials of the future workforce. Most future occupations will require strong math, science and technological training. But students---especially girls---are not currently participating in educational opportunities to fill the requirements of these occupational positions (Girls Count, 1994).

Girls need to learn about economic realities of the future. The present economy and society continue to change at a rate which challenges even those who have traditionally been strong workforce participants. Women have not often chosen careers which have a high probability of enabling them to be economically secure. All young people, but especially girls must make career decisions with clear information about the earning potential and anticipated economic demands (Girls Count, 1994).

Girls need to learn about themselves. Exploration that begins in elementary and middle school will help students become competent in identifying their interests and abilities and empowered to select future work that matters to them and in which they will succeed (Girls Count, 1994).

Girls need to be counseled to take nontraditional career paths or to take the math, science, and technology classes that will open up additional career options. At present, Colorado girls are not being counseled to take nontraditional career paths or math, science, and technology. As a result, by the time girls leave high school, they are behind males in these areas, and many career paths are automatically closed off. This is especially true of
minority girls. (Berberick et al., 1994). The Ms. Foundation’s 1995 Take Your Daughter To Work Day campaign literature reports these facts:

1. By the time our daughters are ready for work, the economy will require 500,000 additional scientists and engineers.
2. Between 1989 and 1990, the number of senior girls in high school interested in engineering dropped by 25%.
3. Nationally, the number of college women going into science and graduating in science is declining.
4. In the field of medicine, 83% of the doctors are men; 97% of the nurses are women.
5. Women of color make up 3.3% of women corporate officers.

Focus Question Three: Summary

Life planning, which includes career development competencies, for adolescents—especially females—is essential. Girls in early adolescence lose their resiliency and optimism and become less curious and less inclined to take risks. They lose their assertive, energetic and "tomboyish" personalities and become more deferential, self-critical and depressed (Phipher, 1994).

The middle school movement can well serve to deliver the career development competencies needed by adolescent females in order to make the school-to-work transition, if the movement accepts the challenge and role of acting both as a foundation and launching pad. Ideally, the programmatic characteristics of the middle school movement will remain fluid to serve the needs of the adolescent while providing insight to the need for future planning.

Incorporating the school-to-work components into the middle school program can provide the important link between academic and extra-curricular activities and abilities, and can encompass career development competencies.

Focus Question Four

"What is the status of guidance and counseling models and practices used to enhance the career development competencies of female adolescents?" To investigate this question, literature related to comprehensive guidance and counseling programs, was reviewed, as well as models which demonstrated potential, and work which considered differential attributes: gender, race, ethnicity, culture, physical/mental challenges, and gifted/talented.

Comprehensive Guidance and Counseling Programs

Today, there is general agreement that the term guidance program or guidance and counseling programs (used synonymously in the literature) refers to a comprehensive
developmental program designed to benefit all students in their journey through school and their preparation for the future. This program is designed to address the developmental needs of students in ways appropriate to their ages (elementary, middle, secondary, or post-secondary). The purpose of the guidance curricula is to provide all students at all levels, with knowledge of normal growth and development, to provide them positive mental health, and to assist them in acquiring and using life skills. It should be noted that counseling is but one process of the guidance program and refers to the interaction between a professional counselor and an individual or a small group (Cunanan & Maddy-Bernstein, 1994).

Definitions of guidance and counseling terminology have changed. Career development is generally accepted as a lifelong process which incorporates general education, occupational training, and work as well as one's social and leisure life. Career education is the process designed to assist individuals in their career development. Career guidance is one component of a total career education program. According to the NOICC's (National Career Development Guidelines 1989), a Career Guidance Program has these features:

1. It is identifiable but integrated with other programs within the institution.
2. It enhances the career development knowledge, skills, and abilities of all students by establishing program standards.
3. It uses coordinated activities designed to support student achievement of the standards.
4. It supports the delivery of the program through qualified leadership, diversified staffing, adequate facilities, materials, and financial resources, and effective management.
5. It is accountable with evaluation that is based on program effectiveness in supporting student achievement of the career guidance and counseling standards.

According to the NOICC's Guidelines (1989) students need assistance in (a) increasing self-knowledge; (b) educational and occupational exploration; and (c) life-long career planning.

Gysbers (1988) lists the following career development needs of students, otherwise referred to as the domains of a comprehensive guidance program:

1. Students need improved and expanded opportunities to become aware of and develop their career (self) identify. Many students are disadvantaged when it comes to opportunities for career development. They have inadequate sampling of work-world models on which to base their emerging career identity. It is not that they don't have any, but those they have generally are inadequate. A lack of such opportunity, however, does not result in an occupational knowledge and value vacuum. Opinions are formed and judgments are made, and many times these result in premature educational and occupational foreclosure. An opportunity unknown is no opportunity at all.
2. Students need improved and expanded opportunities to conceptualize their emerging career identify through continuous and sequential career exploration activities. Students need a chance to explore and test out some of their notions about the work world.

Possible career options require continuous testing to help evaluate what such options may mean to them. Students need opportunities to ask themselves the question, "What do these options mean to me as I’m developing in my career identity?"

3. Students need improved and expanded opportunities to generalize their emerging career identifies through effective placement and follow-through adjustment activities. They need help in translating their emerging career identities into reality. Students need the opportunity to continuously and systematically explore and test out from an internal frame of reference their personal attributes in relation to the wide range of educational and career opportunities that may be available to them. It should be clearly understood that the primary goal is not to have students choose careers to fit jobs, but rather to enlarge students' capacities and vision to make decisions about themselves and their career development in the context of the society in which they live, go to school, and work.

The research of Karen St. Clair (1989) highlights dated, but useful, information on the effectiveness of middle school counseling interventions and techniques which has meaning when used in conjunction with the human development theories reported by Milgram. St. Clair featured Lazarus (1976, 1978, 1981) multimodal counseling domains which stresses attending to the following human processes, identified by the acronym BASIC ID: Behavior, Affect, Sensation, Imagery, Cognition, interpersonal relations, and Diet.

Behavior: Middle school counselors have a responsibility to help school personnel with student behavior management. There are varied techniques reported in research studies for counselor application.

Affect: This domain involves the individual's feelings and emotions. St. Clair (1989) cited Durbin (1982) who stressed how a positive self-concept, or good feelings about the self, can influence other aspects of one's life, including academic achievement. Results from the Peers-Harris Self-Concept demonstrated statistically significant improvements of self-concept between control groups. Significant results in cognitive and affective variables were also achieved with control groups which experienced a well-designed career exploration program.

Imagery: The incorporation of imagery into elementary school education and counseling has been achieved by helping children explore images of feelings, school, and the future (Gerber, 1982). Counseling about images of the future and their relation to goal
setting and career planning is appropriate for middle school counseling (1986, in St. Clair, 1989).

Counseling techniques designed to alter career-related images or beliefs of middle school (8th grade) girls was successful. At the conclusion of the 11-session counseling program, the control group of girls found an increase in the desire to explore nontraditional careers. This result was of added interest in that the intent of the study was for girls to make informed decisions rather than the type of careers the girls chose to explore. Further research is necessary to assess the long-term effects of such interventions.

Interpersonal-relations: Research on the effects of programs and techniques to improve interpersonal relations at the elementary school level far exceed the number of research studies at the middle school level (Gerber, 1985). This practice ignores the proven fact of the impact of the relationship of human development and the adolescent years discussed in Focus Question Three.

Models Which Demonstrate Potential

There are several well-defined models available to educators who seek to revamp their guidance programs (Feller et al, 1992; Walz & Ellis, 1992). Walz and Ellis (1992 in Cunanan & Maddy-Bernstein, 1994) discusses three model career guidance and counseling programs: Gysbers' Comprehensive Guidance Program Model, Myricks' Teacher Advisor Program Model, and Purkey's Invitational Learning for Counseling and Development, all of which have proven to be effective in providing assistance to students with diverse needs. "Each program has a solid, conceptual foundation and has been field validated through extensive and successful use in school programs across the nation." Walz and Ellis also point out how the combined use of these programs can bring about a special guidance synergism (Cunanan and Maddy-Bernstein, 1994).

An overview of the application and impact of the models, references in the literature, along with a listing of commercial products, has been included as part of the review.

Studies form the Missouri Comprehensive Guidance Program (Gysbers Model) reviewed the student competency areas of career planning and exploration, knowledge of self and others, and educational and vocational development. Career planning and exploration was the area rated the highest by students in terms of the ways in which counselors and teachers had helped them during the year. The lowest percentages were for preparing for a job and understanding how being male or female relates to jobs and careers. Academic concerns and future career plans were the most frequent reasons for parents talking with the high school counselors (Hughey, Gysbers, & Stan, 1993).

In his studies, Edmondson (1979) related to the domain of behavior reports improved scores on self-esteem measures as a result of the popular "Magic Circle Program" (a small-group program designed to help children learn listening skills). Teachers using the Magic
Circle program Zinges (1981) found that teacher communication training resulted in improved student self-esteem and reading performance as well as improved job satisfaction among teachers (Gerber, 1985).

Although few studies explored what career counselors actually do or should do at the elementary level Carroll (1993); Morse & Russell (1988) and Williams (1989) reported the career counselor does make an impact. Seligman (1981) described a career counseling program for adult females. Using a questionnaire, the results report that male as well as female clients seemed to derive both attitudinal and occupational benefits from career counseling and expressed positive views of the career counseling process.

Special funded projects should also be recognized. As discussed in the opening of Chapter Three, Federal dollars have been available for local initiatives. Although most local projects are never filed with an education index for reference, many middle school projects have made a difference, and their potential contributions should be recognized. The following are samples of Colorado initiatives from the Education Index:

<table>
<thead>
<tr>
<th>Focus:</th>
<th>Middle School</th>
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<tbody>
<tr>
<td>Agency:</td>
<td>Colorado Partnership for Educational Renewal</td>
</tr>
<tr>
<td>Program:</td>
<td>Gender Equity in Vocational and Career Education</td>
</tr>
<tr>
<td>Description:</td>
<td>Toward Shaping School and Classroom Practices</td>
</tr>
<tr>
<td>Description:</td>
<td>Local school educator teams were formed, composed of administrators, counselors, parents and teachers. In teams, they did extensive reading in the area of gender equity, analyzed the situation within their school and developed and implemented a plan to address any equity issues. The process is an ongoing cycle to recognize the changing population (teacher and students) as well as the changing society. This program is applicable to all levels of education.</td>
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<tr>
<th>Focus:</th>
<th>Middle/Junior High School</th>
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</thead>
<tbody>
<tr>
<td>Agency:</td>
<td>Colorado Springs/Eastern Plains</td>
</tr>
<tr>
<td>Program:</td>
<td>Middle School Transition to High School</td>
</tr>
<tr>
<td>Description:</td>
<td>Eighth graders are given a one-day orientation shadow program in which they follow a 9th grader. The orientation includes activities and athletics with a focus on academics and high success issues. An after-school program for 8th graders is also offered to assist for students displaying high risk behaviors of incomplete or no homework.</td>
</tr>
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</table>

| Author:                     | Guttman, Mory Alica Julius                                                   |
| Description:               | The objective of the program was to integrate basic counseling skills into the curriculum, using individualized projects, as a way to improve the self-esteem of students and deter substance abuse. Project Stepping |
Stone is a peer counseling group that discusses substance abuse prevention and self-esteem issues. "Project M.A.D. (Make A Difference) students write, produce and publish a school newspaper that includes articles about teen pregnancy, drugs and suicide prevention, drinking, and driving, and social issues, e.g., sexual harassment. Project Look to the Future explores career and educational opportunities. Project Options asks students to identify risk factors in their behavior and help one another to develop alternatives to dealing with depression, peer pressure, and other personal issues. The counselor acts as a liaison and facilitator for a student study team and faculty teams that develop interventions for kids at risk, teams that often grow out of issues identified in one or more of the projects.

Other examples are provided in the Appendices:

Appendix A - NOICCC Middle School Guide
Appendix B - Commercial Products

The use of assessments is important in a comprehensive guidance and counseling program. Students, counselors, and parents all benefit from assessment. Results providing a bias, or stereotyping of the instrument(s) and interpretation of results is acknowledged. Use of assessments with other counseling practices demonstrates more merit than serving as a stand-alone practice.

Examples of assessment research documentation follow.

Author: Grotevant, Harold D.
Title: Exploration as a Predictor of Congruence in Adolescents' Career Choices
Abstract: High school seniors completed an ego identity interview, with occupations considered coded for occupational prestige, substantive complexity, interest environment, and gender dominance; they also completed the Strong-Campbell Interest Inventory and a verbal ability measure. Breadth of exploration in the four career dimensions, particularly in gender dominance exploration, was found predictive of congruence between career choice and personality style for males and females.

Author: Hansen, Jo-Ida C. and Stocco, Jeffry L.
Title: Stability of Vocational Interest of Adolescents and Young Adults
Abstract: The data indicate the appropriateness of using the Strong-Campbell Interest Inventory with adolescents and young adults. Test-retest correlations were substantial. A large percentage of adolescents and young adults have stable interest patterns throughout their educational
carers. Stability of measured interests was not found to be universal.

A second study to analyze the stability of interests of adolescents and Young Adults by Hansen and Stocco (1989) asked students from the 5th, 8th, and 11th grades to describe their ideal-self-image. Analyzed according to 19 categories (such as occupation, marriage, and physical appearance), the responses revealed differences according to gender, age, cognitive - developmental level, and socialization experiences.

Author: Mooney, Robert F.
Title: Categorizing High School Girls into Occupational Preference Groups on the Basis of Discriminant-Function Analysis of Interests
Abstract: A preference questionnaire and the Kuder General Interest Survey Form E (1964) proved useful in defining interest patterns in eight broad occupational preference groups. Cross-validation of results suggests additional ways counselors can help girls plan beyond high school.

As stated earlier, although specific references were limited, it was important for the reviewer to highlight this literature review on guidance and counseling curricula and programs for adolescent females. Reference to adolescence and females included these:

Author: Grotevant, Harold D.
Title: Occupational Knowledge and Career Development in Adolescence.
Abstract: Of subjects claiming considerable understanding of their first choice career, only half planned to achieve the amount of education appropriate to enter that occupation. Subjects' perceptions of how well they understood their occupational choices were negligibly related to the compatibility of their vocational interests and career choices.

Integrating guidance programs has proven effective:

Authors: Richard T. Lapan, Norman Gysbers, Ken Hughey, and Thomas J. Arni
Project: Evaluating a Guidance and Language Arts Unit for High School Juniors
Description: School counselors and English teachers worked together to provide an opportunity for students to develop academic skills while exploring relevant career issues. The assignment was to "research" careers of interest and careers related to English usage. The research approach seemed to solicit and retain student interest in the project. Their depth of investigation and commitment were greater than assigning a topic to be written.
Findings: The unit effectively promoted learning across sex, levels of academic competencies, personality orientation, pretest vocational identity differences, and crystallization of vocational interests. Also, more confidence can be placed on the path between the planning and
developing career competencies and vocational identity because this relationship does not capitalize on such pre-treatment differences for either boys or girls. Girls indicated that from their participation in the guidance unit, they gained a better understanding of how being a male or females relates to jobs and careers. Unfortunately; only 54% of the girls indicated that they had explored careers different from those which they had already been considering prior to participating in the unit. This raised the questions of how effective the unit was in challenging emerging self-understandings that may restrict vocational aspirations.

Author: Gilligan, Carol
Title: Adolescent Development Reconsidered
Abstract: Emphasizes necessity for reconsideration of adolescent development, for these reasons: the view of childhood has changed; females have not been systematically studied; theories of cognitive development favor mathematical and scientific thinking over the humanities; and the psychology of adolescence is anchored in separation and independence rather than interdependence and commitment.

A 1992 research report on middle school girls in Denver, Colorado, reported by the Colorado Agenda for Women showed that while girls plan to work, they do not plan for a career in order to be economically self-sufficient.

Author: Schulenberg, John
Title: Career Certainty and Short-term Changes in Work Values during Adolescence.
Abstract: Examined how career certainty, grade level, and gender relate to short-term changes in work values among junior high and high school students. Findings suggest that, during adolescence, higher career certainty reflects greater engagement in vocational identity search and more active consideration of work values.

Prior research suggested that flat vocational interest profiles reflect individuals who may lack appropriate experiences with activities relevant to developing vocational interest and career maturity (Prediger & Swaney, 1985).

Affect of Assessment Tools

In her July 1994 presentation at the National Workshop, "Educators’ Roles in School-To-Work Transition" Kristin Watkins presented the following paper: "How Assessment Tools Affect the Career Guidance of Women and Girls."

In it, she stated that most vocational education and job training programs use standardized tools to assess participants' abilities and interests, in order to help them find the
occupations for which they are best suited. However, as a result of sex role conditioning in society and sex bias within the tools themselves, many of these tools tend to steer women and girls into a small number of traditionally female occupations. The Commission of Sex Bias in Measurement of the Association for Measurement and Evaluation in Guidance defined sex bias as "that condition or provision which influences a person to limit his or her consideration of career opportunities on the basis of that person's sex" (Watkins, 1994, p. 2). In order for job training and vocational education programs to increase the number of women and girls trained and placed in nontraditional occupations (NTOs), career counselors need to be aware of the ways in which commonly used assessment tools steer women and girls away from NTOs.

Vocational Aptitude Tests

Vocational aptitude tests are used to test an individual's capacity to be trained in a variety of areas. Generally, they take the form of test batteries--groups of several tests, each of which is designed to test a specific aptitude. The individual's performance on the various tests is compared, and the tests on which the individual's performance is strongest are considered indicative of where her strongest aptitude, or capacity to be trained, lies.

Typical male and female test takers perform differently on particular aptitude tests. Males generally demonstrate higher aptitude on tests of mathematical and spatial ability, while females tend to demonstrate higher aptitude in reading comprehension, clerical ability, and spelling. These gender differences in tested aptitude lead to differentiated career guidance; men and boys are counseled to enter jobs requiring strong spatial and math skills, such as trade and technical occupations, while women and girls are encouraged to enter clerical occupation.

Some examples are the Differential Aptitude Test (DAT), General Aptitude Test Battery (GATB), and Armed Services Vocational Aptitude Battery (ASVAB).

Important what to keep in mind when using aptitude tests for women and girls' career guidance are these points:

1. While the general range of scores on a test battery tends to correlate with success in the classroom, differences in performance among specific tests in a battery may be poor indicators of where individuals' strengths and weaknesses really lie. For example, a high Mechanical Reasoning score on the DAT is not indicative of how a high school student will perform in an auto shop course, and a high Clerical Speed and Accuracy score is not indicative of how a high school student will perform in a keyboarding course.

2. Aptitude test scores are influenced by experience. Most of the gender disparity in math and spatial aptitude has been correlated with women and girls not taking as many math classes in high school and not participating in as many
sports and other spatially oriented activities as men and boys. Some aptitude tests, such as the "Auto and Shop Information" portion of the ASVAB, are entirely dependent on experience because they test knowledge, not aptitude. Many women and girls who demonstrate a lack of "aptitude" in these areas may simply need help catching up.

3. The language and content of test items can work to decrease women's and girls' scores. This bias can take many forms, including the under-representation of female characters in word problems and reading comprehension passages; the gender-neutral usage of the pronoun he; examples that rely on "male-oriented" activities, such as sports; and content that is unfamiliar to women and girls, such as the tool-matching test in the GATB (which depicts objects resembling things found in workshops, with which many women and girls lack experience).

Several methods can be used to minimize sex bias:

1. Most test batteries, but not all, have eliminated the "gender-neutral" use of masculine pronouns. Most have also increased the representation of females and the range of activities in which they are depicted.

2. Some tests have included examples involving activities with which women and girls are more familiar, such as sewing machine repair and sewing patterns, to test the same constructs, or ways of thinking, as examples involving carburetor repair and blueprints.

3. Vocational aptitude test scores are commonly reported with reference to same-sex as well as opposite-sex norms, in addition to general percentiles. Test-takers can find out how their scores compare to males at large and to females at large.

Whereas this technique may be an easy way to deal with internal best bias, depending on the interpretation of the results it can overstate the abilities of some females by comparing them only to the overall performance of other women and girls, or understate the abilities of some by implying that their score only seems good in comparison to other women and girls.

Interest Assessment

Interest assessment tools are used to help an individual decide which occupation he or she would find most rewarding. The method of interest assessment used by most interest inventories is to identify from a list of activities those the individual finds interesting and, based on those activities, locate areas of occupational interest.
Females and males answer nearly every question on almost every inventory in a significantly disparate way. The most persistent general pattern is that of a female preference for activities involving people over those involving things, while males show no general preference either way. The result of these different response patterns is that men and boys are counseled to enter a broad range of occupations, relating to both people and things, while women and girls are encouraged to enter people-oriented, or "social" occupations, such as receptionist, nurse's assistant, or child care worker.

Some examples of interest assessment instruments are the Strong-Campbell Interest Inventory (SCII), Kuder Occupational Interest Survey (KOIS), Non-Sexist Vocational Card Serach (VCS), Unisex Edition of the ACT Interest Inventory (UNIACT), and the Holland Self-Directed Search (SDS).

Several things bear keeping in mind when using interest assessment tools for women and girls' career guidance:

1. On average, even women and men in the same occupation have significantly disparate response patterns on most interest inventories, largely reflecting women's and girls' preferences for people-oriented activities. An interest inventory developed without consideration of divergent male and female interests within occupations will inevitably result in differentiated career guidance; women and girls will tend to be steered away from NTOs for responding to items in a gender-typical way--even if their responses were typical of women in those NTOs--because men make up the majority of the workforce in those occupations.

2. As with aptitude tests, certain types of language and content can be unfamiliar to women and girls or can make them feel uncomfortable. Even items that seem unbiased can reinforce any women and girls' belief that only men and boys can do certain jobs, if male-oriented examples are used to describe traditionally male occupations.

3. Although easy to use and score, the interest inventory format, usually a list of activities to which the individual is asked to give a quick gut reaction, can make women and girls' preference for typical female activities more pronounced.

Some methods can be used to minimize sex bias:

1. Sex-balancing is a method that restricts the range of inventory items to those on which women and men in the same occupations respond similarly. However, such items are few and often the small remaining differences between male and female responses on given questions can add up to sizable differences in results. UNIACT is sex-balanced.
2. Sex-norming, or "same-sex norming" of interest inventories involves scoring females and males separately and comparing their interests only to those of people of their own sex in a given occupation. Although this method is considered controversial because it treats males and females separately in an attempt to engender equality, sex-norming is used by the SCII, the KOIS, and most other inventories. However, when very few women or men are already in a given occupation, inventory developers may simply find it too difficult to develop norms for that sex, that women and girls cannot be scored for certain NTOs. This is especially the case on the KOIS.

3. The "occupational daydreaming" portion of the SDS draws on an individual's creativity to escape the constraints that may prevent a male or a female from responding to an inventory in a way that is unusual for someone of his or her sex. Other methods, such as the VCS, require the individual to give lengthy consideration to every item and characterize his or her reasons for responding to each card in a certain way—which can prompt the undecided individual to seriously consider a broader range of occupations.

4. Almost all modern interest inventories describe activities rather than listing names of occupations. For example, describing the activity "making things out of wood" elicits a more positive response from women and girls than merely stating the job title "carpenter."

Over the past several years, all of the well-established tests have eliminated most gender word usage, although the male-oriented content of test items can still be a barrier. Among widely used and tested aptitude test batteries, the DAT has probably done the most to minimize sex bias within the test structure, although the potential to misinterpret or overstate the differential significance of various scores remains problematic. The GATB, which contains a tool-matching test, and the ASVAB, which contains the Auto and Shop Information test, continue to create barriers for women and tend to screen females out of NTOs. For interest assessment, the current, sex-normed version of the SCII can be used to score women and girls for all but one NTO, and the VCS and SDS provide the greatest flexibility (among commonly used tools) for nontraditional interest expression. However, no ideal assessment test has been devised. Without such a test, successfully assessing women's and girls' aptitudes for and interest in NTOs requires an interpretation of men's standardized assessment test scores that recognizes their potential to steer women and girls into traditional occupations.

In conjunction with that, other assessment models, i.e., assessment interviews and alternative assessment tools (such as the self-screening questionnaire developed by the STEP-UP Program in Vermont) may be used which draw out skills and interests of women and girls that are transferable to nontraditional employment.
Consideration of Differential Attributes

Much can be done to enhance the range of a gifted girl's career options by supplementing the regular classroom program (Dettmer, 1980). Local industry and colleges can sponsor activities to expose the girls to different careers. Women in nontraditional settings can serve as role models--speakers and mentors. After school, weekend and summer programs can provide new options. Pre-college experiences can be arranged. Additionally, personal computers are an excellent tool for differentiating and individualizing instruction.

Career development is a concept that includes all of a person's life experiences, culminating in the development of a career identity (Gysbers, 1994).

Students with differential attributes question if their needs and experiences are considered by the accepted model of career development and its three stages: awareness, exploration, and preparation (Vanzandt & Layshop, 1994).

Literature reviews on the career development of black females concludes that their unique dilemmas are often ignored, forgotten, or subsumed under the headings of minorities or females in general (Smith, 1981).

Smith (1981) also researched reference group perspectives and the vocational maturity of lower socio-economic level black youth, and found that black high school seniors' perspectives were related to their career maturity and that their views of the opportunity structure of America were related to both their reference groups' orientation and their career maturity.

A counseling model for increasing the number of minority students in the sciences and engineering is also available from Smith (1980).

Many black people, frankly, don't want to judge the correctness or significance of their actions by long-term standards. Instead, their standard is avowedly based on what gives their group the greatest immediate advantage (Roosevelt, 1974).

Roosevelt (1974) submitted that is immoral to program a child for a skill during his educational formative years. Furthermore, the race of the student makes a difference in this country as to what career education is apt to do for students. These are two prevailing opinions held today by many Black Americans.

Chisholm and other contributors to the Black Agenda for Career Education, Roosevelt (1974) identified several components and practices to change career education to serve black students. These are:

1. Career education must look far into the future, a future that is closer to our children than it is to the counselor and teachers. A man or woman 10, 20 or
50 years from now should be paid to spend all his or her time thinking—
thinking of ways to keep society human.

2. America is moving from a working force, and it is incumbent upon thinking
blacks to not accept the monolithic career education clusters as the model to
educate future generations of black children.

3. Career education today is treating the ills of society and the educational system
rather than treating the deficiencies of the students.

4. Career education must be accountable.

5. Assessment must be made of the needs for black trained professionals to work
with black students and administrators to develop programs to train them.

6. Children should be educated for careers by a variety of means.

7. The biased testing which begins when black children enter school should be
recognized. They are conducted in earnest by the 7th grade "hatchet men" and
result in black students leaving the system to find an education through the
military or on-the-job training by the 11th grade.

8. Black counselors are needed for black students.

Social psychological studies sharply indicate the negative self-concept forced upon
black children by a basically racist white society. Our educational system has made no all-
out, well-designed attack upon bigotry. Benign neglect can no longer be the response to
minority group pleas for equal educational opportunity (Roosevelt, 1974).

Unfortunately, the movement by states to mandate gifted/talented education has been
slow. Likewise, the movement requiring special education course work for all teachers and
certification for gifted/talented instructors and requiring IEPs (Individual Education
Programs) has been slow.

Enhancing the gifted girl's ability to cope may be the greatest single service her
counselors can provide. In order to do this, they require knowledge about the cognitive and
personal-social characteristics of gifted girls.

As a traditional gestalt psychologist wrote, "The whole is greater than the sum of its
parts." It therefore behooves the teacher and counselor to know each advisee as well as
possible, and to provide accurate information that will permit her to choose her options on
the basis of facts rather than biases.
Focus Question Four: Summary

Splete and Stewart's (1990) work reviewed competency-based career development strategies found in the 12 competency categories of the National Career Development Guidelines of the activities reported at the K-12 school levels. The most frequently cited were skills in locating, evaluating, and interpreting career information. Support of positive self-concept was the self knowledge competency most often found in the literature. The most frequently reported competency at the junior high and high school level was skill at making career transitions. Understanding the continuing changes in male/female roles was the most frequently addressed competency at the elementary level (Feller et al., 1992).

Comprehensive guidance and counseling programs are particularly beneficial to students learning the basic skills and planning techniques to help them structure their future (Feller et al, 1992).

The comprehensive guidance program includes (a) guidance curriculum, (b) individual planning, (c) responsive services, and (d) systems support. It is designed to address the needs of all students by helping them acquire competencies in career planning and exploration, knowledge of self and others, and educational and vocational development (Stau & Gysbers, 1989).

A reflection of the composite of the literature review for Focus Question Four projects a promising window of opportunities educational institutions to continue to design their comprehensive guidance programs.

Promising, if while designing the guidance programs, the designers focus on the total picture: the relationship of the guidance and counseling domains, career development competencies and their delivery with the needs of the students. What must be remembered is that the comprehensive guidance and counseling curricula and programs must serve all students, rather than be a model with a curriculum of differential treatment. A procedure to determine whether the guidance and counseling curricula and programs will enhance the career development competencies of female adolescents may be to ask this question: Is this program for real people, with real issues, in a real world?

Focus Question Five

"What partnerships exist to facilitate the career development of adolescent females?" This area of inquiry dealt with the external factors of systems or people which are either barriers or facilitators in the process of career development for female adolescents.
The Developmental Path: Family

The family is the first highly important influence on the development of children. The family lays the groundwork and sets the emotional and cognitive tenor for development. It determines the child's themes and interests and directs the child toward the future. Families not only pass on genetic similarities, but they train broadly in terms of goals, values, history, and traditions. The family as an educational environment, with its own values and aims has the earliest educational impact on the child's identity, self-esteem, and sense of competence (Milgram, 1992).

Research documents the weight of family/parental influence. The Grovtevant (1976) study of family similarities and interests and orientation suggests differential contributions of mothers and fathers to the interests of their children. Parent-child similarities were found to influence both the particular Holland interest style being examined as significantly as did the child's sex.

The Burlin (1986) study investigated the relationship of parental education and maternal work and occupational status to the occupational aspirations of adolescent females. Significant association was found between occupational aspiration and father's education and between occupational aspirations and mother's occupational status (traditional versus nontraditional).

Acknowledging differential attributes, Gandara's (1992) study concludes that Hispanic mothers were either equally or more influential than Hispanic fathers in their daughter's educational aspirations. Consistent with other studies of high academic achievement in the majority population, these Hispanic female students described their parents as nonauthoritarian in their discipline and as having placed a strong emphasis on independent behavior.

The ways in which parents behave with their gifted daughters may, for example, reinforce long-term vocational planning differently, as was found in a study of parents of high creative and low creative women (Trollinger, 1983). If one or both parents had wanted a son, or resented the fact that the daughter was academically brighter or artistically more talented than a son, this, too, had effects on the gifted girl.

Many gifted girls face additional career choice problems because their parents and teachers have high expectations for gifted girls in some respects, and lower expectations in others. As they grow up, gifted young women are led to expect that they will attain high academic and vocational accomplishments, to the same degree as gifted boys. At the same time, they receive an opposite message that may lead to lower vocational aspiration and accomplishment. This message is conveyed by parents at the expense of perfecting the talent of the girl in a cost-return equation which acknowledges marriage as the future for the daughter. Teachers and counselors share the isolation of being perfectionists in a man's
world. Later, school phobia or under-achievement may stem from family messages, and should be treated as a family problem rather than the girls’ problem alone (Milgram, 1991).

The family genogram (a multigenerational graphic representation of a student’s family of origin), designed by Okiishi (1987) serves as a practical tool for career counseling. In career counseling, the genogram could (a) help the counselor and student determine the individuals in the student’s family who may have been significant to the formation of the student’s career expectations; (b) the counselor could better understand the student’s point of view of the world of work; (c) possible barriers poised by significant others or perceived by the student to be restrictions could be identified; and (d) sex role stereotypes could be pinpointed.

For the purposes of career guidance with children and adolescents, the genogram process needs to be modified to elicit as much vocational/career information about family members as possible and to accommodate students not in positions to construct elaborate diagrams due to age or other variables. For example, it would be unusual for the average nine-year-old to be aware of vital statistics of her or his family, the intricacies of various interpersonal dynamics therein, or the career histories of its individuals. Similarly, for low socio-economic students, the unemployment and welfare status of family needs to be recognized.

The Developmental Path: Focal Relationships

Focal relationships are close, confirming relationships outside the immediate family that support, encourage, and stimulate the realization of potential abilities.

A powerful focal relationship is the family-school connection. Early adolescent development takes place in the context of the home and school environment. Those persons relating to early adolescents in one environment need to work in partnership with persons in the other environments (Smith & Hausfus, 1994).

As teachers of their children, parents assume the role of teacher and provide supervision for their children’s learning activities at home on a regular basis. However, it is important that school personnel communicate to parents the goals of the work, recommend where to obtain help when needed, and obtain feedback from parents on how the process is working (Smith & Hausafaus, 1994).

Given the wealth of studies on the positive effects of parental involvement on the student’s academic achievement, it is reasonable to ask, what barriers exist? Few parents feel that they are not wanted at school, that they have no power to influence the school, or that running the school should be left to the experts (Smith and Hausafaus, 1994). For students with differential attributes, parents express distrust at the school system--especially career education as a form of intellectual genocide (Roosevelt, 1974).
If career expectations for girls differ among parents, teachers and counselors a conflict arises. Winnicott (1971) and other psychoanalytically-oriented explain why it is that a child's potential as a human being, much less her talent, cannot develop without other people's intervention.

A focal relationship facilitates the realization of potential abilities in several ways: first, it gives the individual a sense of positive worth and security and a focus to their identity and goals; second, it places explorations (internal and external) under greater attention and control rather than allowing them to occur. Third, a focal relationship helps to verify the individual's existing interests and positive self-regard; and fourth, a focal relationship may transfer its own benefit to subsequent relationships, thereby permitting an individual to move on developmentally (Milgram, 1991).

Focal relationships can come from a multitude of resources: teachers, counselors, mentors, religious leaders, girls' organizations, role models, instructors of the arts, persons in business and community, etc. It is vital for these external figures to be aware of whether they are practicing "benevolent abandonment" or "overstructuring" with respect to the young girl in their charge. Sensitivity to the characteristics and needs of the girl should be developed in all prospective external figures (Milgram, 1991).

Currently, many faculty members cannot effectively identify sexism—for example, that girls are often portrayed as helpers while boys are portrayed as doers. In general, faculty attitudes were not aligned against sex equity values (equal opportunity rights and the development of the individual). Instructors are very much aware of the terminology but indifferent to the basic purposes and obvious means of improvement (League of Women Voters, 1982).

The Developmental Path: Systems

Adolescents, like adults, are affected positively and negatively by external, structured units called systems. The impact is made in a variety of ways by the structure of the system, the governance of the system, the philosophy and mission of the system, and the population of the system.

Young adolescents, once again, are in a state of limbo with regards to systems. Although they are affected by it, they are not yet of an age to be in a position to change a system. For example, in organized athletics or any similar performance-based system, a student must meet criteria for membership—be a certain weight, play an instrument to a specified level of skill, dance at certain levels, etc. These are all examples of systems which frequently create situations of win/lose rather than be systems which allow for adolescents to explore their creativity and interests or to learn new skills.

Sexism in many of the systems is also pronounced, in the selection and types of activities and the exclusive gender membership, as well as in the forms of recognition.
Children can also be excluded from systems because of the attributes of their culture, ethnicity, or religion. This exclusion can come from either the system or the attribute. For example, some religions will not allow their members to participate in organizations where a secret oath is taken, or be participants in beauty pageants which require baring the shoulders or wearing a swimsuit. Counter examples are systems which require youth to state an oath or creed.

The philosophy, mission or activities of an organization sometimes create barriers for students, as do meeting times, locations, and membership. For students bused from rural areas or across town, after-school, school-based or neighborhood meetings are not feasible; for the student who does join, membership frequently leaves the child in a different cultural or socio-economic setting. Costs for dues and activities also serve as barriers.

Work-related systems such as apprenticeship training openly discriminate against blacks (Roosevelt, 1974).

Government programs are often written for and available only to a 'qualified' population. Funding for many organizations also dictates their membership and activities.

The rejection of organized groups or structured systems by adolescents is further heightened by the changing society--a society of nonjoiners. This self-selection by the adolescent to be isolated or independent by the adolescent limits the parameters for mental, physical and psychological growth at a time when her or his mind and body is in a developmental stage. Hence, although systems may have their negative aspects, there is something to be learned from each system; and chances are that one or more of the systems will fit an individual's needs.

As the world grows smaller because of technology and transportation, it is essential for adolescents to partner with as many resource bases as possible, to develop the whole person. This partnership is especially important for adolescent females, who already demonstrate a tendency to be falling behind in the educational system.

Focus Question Five: Summary

A child's potential as a human being cannot develop without other people's interventions. The developmental paths for early adolescence appear to be critical, for important cognitive changes, relationships, and performances to occur and interact. By age 12, many important personality traits and values have become stable, and are accurate predictors of later behavior. According to Piaget, this age is also critical in cognitive development, with the appearance of formal operations and the basic cognitive skills for abstract, future-oriented, hypothetical thinking (Milgram, 1991).

No child knows the possibilities of the careers that lie ahead. Decision making about careers is a chain of events guided by schema and feelings which only experience can bring
forth, make explicit, and eventually validate. A "good fitting" decision is confirmed when the individual deciding becomes more involved, more deeply invested, energetic, committed, and more satisfied with their efforts in an existential sense. Parents, teachers, troop leaders, coaches, counselors, etc. have critical roles to play in the process by suggesting career possibilities to the adolescent, and by making it possible to experience their possibilities first-hand. Peripheral systems, such as government, organized labor and business, can contribute to paving the developmental path for the adolescent by providing funds, developing career exploration opportunities and eliminating any real or perceived barriers.

Focus Question Six

"What is the role of the school-to-work initiative in serving the needs of adolescent females?"

Overview of the School-To-Work Initiative

The School-To-Work Opportunities Act was signed by President Clinton on May 4, 1994. This progressive new initiative addresses concerns that too many of America's high school graduates are not adequately prepared for further education or to compete for well-paying jobs in the modern workplace. The school-to-work initiative has the potential to ensure that young women gain a fair share of the quality training for the well-paid jobs of the future.

A comprehensive School-To-Work Opportunities system would address the employability needs of all students by providing career development programs within the school system, as well as an actual work-based learning component. It would also prepare students for further education and training by linking secondary and postsecondary education by integrating occupational and academic learning. A school-to-work opportunities system would give young people the fundamental knowledge and basic skills they need for entry-level jobs in high-skill, high-wage careers. A school-to-work opportunities system would also ensure that all students had the opportunity to successfully participate in a learning environment based on high academic and occupational standards.

School-To-Work Opportunities programs must incorporate three 'basic components: (a) Work-based learning, (b) School-based learning, and (c) Connecting activities (Molzhon, 1994).

The School-To-Work Opportunities Act (STW) is jointly administered by the U.S. Department of Labor and the U.S. Department of Education. This union builds upon policies featured in earlier legislation such as the Carl D. Perkins Vocational and Applied Technology Education Act and the Job Training Partnership Act. The STW Legislation envisions long-term programs that weave classroom instruction and work experience into mutually reinforcing activities to advance learning and the practical application of knowledge and skills (NCRVE, 1994).
School-To-Work Legislative Purposes and Intent

Public Law 103-239, the School-To-Work Opportunities Act, states that the purposes of this Act are several:

1. To establish a national framework within which all States can create statewide school-to-work opportunities systems that (a) are a part of comprehensive education reform; (b) are integrated with the systems developed under the Goals 2000: Educate America Act and the National Skill Standards Act of 1994; and (c) offer opportunities for all students to participate in a performance-based education and training program.

2. To facilitate the creation of a universal, high-quality school-to-work transition system that enables youth in the United States to identify and navigate paths to productive and progressively more rewarding roles in the workplace.

3. To utilize workplaces as active learning environments in the educational process by making employers joint partners with educators in providing opportunities for all students to participate in high-quality, work-based learning experiences.

4. To use Federal funds under this Act as venture capital to underwrite the initial costs of planning and establish statewide School-To-Work Opportunities systems that will be maintained with other Federal, State and local resources.

5. To promote the formation of local partnerships dedicated to linking the worlds of school and work among secondary schools and postsecondary educational institutions, private and public employers, labor organizations, government, community-based organizations, parents, students, state educational agencies, local educational agencies, and training human service agencies.

6. To promote the formation of local partnerships between elementary schools and secondary schools (including middle schools) and local businesses as an investment in future workplace productivity and competitiveness.

7. To help all students attain high academic and occupational standards.

8. To build on and advance a range of promising school-to-work activities—such as tech-prep education, career academies, school-to-apprenticeship, school-sponsored enterprises, business-education compacts, and other promising strategies that assist school dropouts—that can be developed into programs funded under this Act.
9. To improve the knowledge and skills of youths by integrating academic and occupational learning, integrating school-based and work-based learning, and building effective linkages between secondary and postsecondary education.

10. To encourage the development and implementation of programs that will require paid, high-quality, work-based learning experiences.

11. To motivate all youths, including low achieving youths, school dropouts, and youths with disabilities, to stay in or return to school or a classroom setting, and strive to succeed, by providing enriched learning experiences and assistance in obtaining good jobs and in continuing these youth's education in postsecondary educational institutions.

12. To expose students to a broad array of career opportunities, and to facilitate the selection of career majors based on individual interests, goals, strengths, and abilities.

13. To increase opportunities for minorities, women and individuals with disabilities by enabling individuals to prepare for careers that are not traditional for their race, gender, or disability.


The intent of the Act is that the Secretary of Labor and the Secretary of Education jointly administer this Act in a flexible manner:

1. It should promote State and local discretion in establishing and implementing statewide school-to-work opportunities systems and programs.

2. It should contribute to reinventing government by (a) building on State and local capacity, (b) eliminating duplication in education and training programs for youths by integrating such programs into one comprehensive system, (c) maximizing the effective use of resources, (d) supporting locally established initiatives, (e) requiring measurable goals for performance, and (f) offering flexibility in meeting such goals.

New Definitions

The Act contains the following definitions pertinent to this review:

1. ALL ASPECTS OF AN INDUSTRY--The term "all aspects of an industry" means all aspects of the industry or industry sector a student is preparing to enter, including planning, management, finances, technical and productions
skills, underlying principles of technology, labor and community issues, health and safety issues, and environmental issues, related to such industry or industry section.

2. **ALL STUDENTS**—The term "all students" means both male and female students from a broad range of backgrounds and circumstances, including disadvantaged students, students with diverse racial, ethnic, or cultural backgrounds, American Indians, Alaska Natives, Native Hawaiians, students with disabilities, students with limited-English proficiency, migrant children, school dropouts, and academically talented students.

3. **CAREER GUIDANCE AND COUNSELING**—The term "career guidance and counseling" means programs (a) that pertain to the body of subject matter and related techniques and methods organized for the development in individuals of career awareness, career planning, career decision-making, placement skills, and knowledge and understanding of local, state and national occupational, educational, and labor market needs, trends, and opportunities; (b) that assist individual in making and implementing informed educational and occupational choices; and (c) that aid students to develop career options with attention to surmounting gender, race, ethnic, disability, language, or socioeconomic impediments to career options and encouraging careers in nontraditional employment.

4. **CAREER MAJOR**—The term "career major" means a coherent sequence of courses or field of study that prepares a student for a first job and that (a) integrates academic and occupational learning, integrates school-based and work-based learning, and establishes linkages between secondary schools and postsecondary educational institutions; (b) prepares the student for employment in a broad occupational cluster or industry sector; (c) typically includes at least 2 years of secondary education and at least 1 or 2 years of postsecondary education; (d) provides the students, to the extent practicable, with strong experiences in and understanding of all aspects of the industry the students are planning to enter.

**Expectations of Guidance and Counseling**

Section 102 of the Act establishes the guidelines for the school-based learning component which include these features:

1. Career awareness and career exploration and counseling (beginning at the earliest possible age, but not later than the 7th grade) in order to help students who may be interested to identify, and select or reconsider, their interests, goals, and career majors, including those options that may not be traditional for their gender, race, or ethnicity.
2. Initial selection by interested students of a career major not later than the beginning of the 11th grade.

3. A program of study designed to meet the same academic content standards the State has established for all students including, where applicable, standards established under the Goals 2000: Educate America Act, and to meet the requirements necessary to prepare a student for postsecondary education and the requirement necessary for a student to earn a skill certificate.

4. A program of instruction and curriculum that integrates academic and vocational learning (including applied methodologies and team-teaching strategies), and incorporates instruction, to the extent practicable in all aspects of an industry, appropriately tied to the career major of a participant.

5. Regularly scheduled evaluations involving ongoing consultation and problem solving with students and school dropouts to identify their academic strengths and weaknesses, academic progress, workplace knowledge, goals, and the need for additional learning opportunities to master core academic and vocational skills.

6. Procedures to facilitate the entry of students participating in a School-To-Work Opportunities program into additional training or postsecondary education programs, as well as to facilitate the transfer of the students between education and training programs.

Partnerships for Delivery

Section 103, the work-based learning component, sets forth the guidelines of mandatory activities to include (a) work experience; (b) a planned program of job training and work experiences (including training related to reemployment and employment skills to be mastered at progressively higher levels) that are coordinated with learning in the school-based learning component described in section 102 and are relevant to the career majors of students and lead to the award of skill certificates; (c) workplace mentoring; (d) instruction in general workplace competencies, including instruction and activities related to developing positive work attitudes, and employability and participative skills; and (e) broad instruction, to the extent practicable, in all aspects of the industry.

The coordination of activities between sections 102 and 103 is stated. Not only are skills of the trade to be acquired through participation in the work-based component, but also affective domain skills. Here is an area where education and work-site partnerships can coordinate for success. The guidance and counseling curriculum and programs must do pre- and post activities to give the students the initial (preemployment) skills and understandings of work experience, and then followup, with the employer's input, in a post evaluation of
how the affective domain skills were strengthened and new skills added. This is all for inclusion in the student’s portfolio and counseling program and delivery process.

Section 104--The Connecting Activities Component is another partnership to be formed and acknowledges the value of focal relationships in the education and development of the adolescent.

The connecting activities component of a School-To-Work Opportunities program include these actions:

1. Matching students with the work-based learning opportunities of employers.

2. Providing, with respect to each student, a school site mentor to act as a liaison among the student and the employer, school, teacher, school administrator, and parent of the student, and (if appropriate) other community partners.

3. Providing technical assistance and services to employers, including small-and medium-sized businesses, and other parties in (a) designing school-based learning components described in section 102, work-based learning components described in section 103, and counseling and case management services; and (b) training teachers, workplace mentors, school site mentors, and counselors.

4. Providing assistance to schools and employers to integrate school-based and work-based learning and integrate academic and occupational learning into the program;

5. Encouraging the active participation of employers, in cooperation with local education officials, in the implementation of local activities described in section 102, section 103, or this section.

6. Providing assistance to participants who have completed the program in finding an appropriate job, continuing their education, or entering into an additional training program; and linking the participants with other community services that may be necessary to assure a successful transition from school to work;

7. Collecting and analyzing information regarding post-program outcomes of participants in the School-To-Work Opportunities program, to the extent practicable, on the basis of socioeconomic status, race, gender, ethnicity, culture, and disability, and on the basis of whether the participants are students with limited-English proficiency, school dropouts, disadvantaged students, or academically talented students.

8. Linking youth development activities under this Act with employer and industry strategies for upgrading the skills of their workers.
Realities of the Act


The STW initiative will break down the two-track system of head/hand skills. Students need both. Our society needs to abandon the concept that the four-year degree is the ticket to employment. The majority of future jobs will require technology. STW is to prepare all students in areas that are high wage and high skill and requires a career major and a three- to four-year postsecondary connection. One concern of counselors is the difficulty to get JTPA students to commit to a career major.

STW ACT and Adolescent Females

Without legislative directives to address occupational segregation, unequal training opportunities will continue to grow. Moreover, legislative history in other educational and training systems reveals that change can be effected through national policy. The framework for such change is the recognition that occupational segregation is antithetical to America’s workforce needs. It must be prevented in federally funded training initiatives, and it is a priority in setting legislative goals and designing successful outcomes for programs (Wider Opportunities for Women, 1994).

The STW Act contains language and mandates to assure adolescent females gain a fair share of the quality training for the well-paid jobs of the future.

Career counseling is a major component of the STW Act. Counseling for career exploration and development involves helping students explore, and, if necessary, change their images for the future. Research by Cramer, Wise and Colburn (1977) and Winlson & Daniel (1981) report on programs to discourage sex-role stereotyping of women and work and are examples of successful ways to provide counseling for career development and exploration. Counselors can be influential in impressing the importance of academic achievement as documented by Wilson’s (1986) research of how counselors helped middle school students become successful (St. Clair, 1989).

The STW Law emphasizes the inclusion of nontraditional opportunities at every phase of the STW program. In provisions covering career guidance and counseling, and career exploration, the Law emphasizes the inclusion of nontraditional occupations for young women. It is well documented that the traditional female jobs are also low paying jobs.

The work-based learning component offers opportunities that will lead to employment in high-performance, high paying jobs, and sets out to ensure an environment free from racial and sexual harassment (Network News, 1994. Washington, D.C., Author).
The requirement of the STW school-based and work-based learning components are to include:

1. Carer awareness and career exploration and counseling (beginning at the earliest possible age, but not later than 7th grade.

2. Initial selection by interested students of a career major not later than the beginning of the 11th grade. These are essential elements for middle school female adolescents. The important findings of Lee and Smith focus on grades 9 and 10, precisely the point at which many students disengage from schooling and begin to dropout in large numbers. The personal environment and greater commonality of students' academic and social experiences help to engage students in learning and keep them in school (Bryk, 1993).

**Student Work Expectations and Values**

The *New York Times* and a CBS News poll of July 12, 1994, reported that girls think they're more likely to have a job than a husband when they grow up. The survey of girls 13 to 17 found they overwhelmingly saw work in their future: 86% said they expected to have jobs after getting married. Only 7% said they expected to stay home. Among boys, only 59% said they expected their wives to work, while 19 percent said they expected their wives to stay home.

A contrasting profile reported March 7, 1995, by National News cites a New York survey of adult men revealing that 57% of reported that they were the sole breadwinner for the family, e.g., that their salary was the salary for maintaining the family. Three years ago, in 1992, 72% of the men responded they were the breadwinner for the family ("Survey of Adult Men", Empire Section, 1995).

Males and females differ in their perceptions of the meaning of work. McGough and Kazanes (1979) found that females who were disadvantaged had a broader perception of the meaning of work than males who were disadvantaged. However, no significant difference in perceptions of the meaning of work was found among ethnic groups.

Others observed gender differences. Girls seem to be more people-oriented, choosing such values as interesting experiences, social services, and working conditions, whereas boys tend to be career or extrinsic reward-oriented, preferring values such as good pay, security, and prestige. However, such gender differences have appeared to diminish in recent years with the breaking down of the barriers between the traditionally "male" and "female" occupations. With regard to age differences in work values, some investigators found a shift from idealistic to realistic work values as students progressed from early to late adolescence. There is also indication that work values appear to have considerable stability over the adolescent years, with strong values growing stronger and weak values growing weaker, then, finally remaining stable in late adolescence (McCracken & Falcon-Emmanuelli, 1994).
McCracken and Falcon-Emmanuelli cited Rosenberg (1957), who noted an occupational choice is not a value itself, but is made on the basis of value. When people choose occupations, they think there is something good about them, and this conception of the "good" is part of an internalized mental structure which establishes priorities regarding what is wanted out of life. It is, therefore, indispensable to an adequate understanding of the occupational decision-making process to consider what people want or consider good or desirable, for these are the essential criteria by which choices are made.

Focus Question Six: Summary

One of the strengths of the national school-to-work system is that it recognizes the importance of broadening the scope of training, beyond the traditional technical content of vocational and job training on the one hand, and beyond the academic preparation for higher education on the other. The combination of the two components, school-based and work-based learning, will enable students to understand the work environment and realize the widest possible range of opportunities available to them upon graduation (Center for Law and Education (1993). Washington, D.C., Author).

STW is lifelong learning. Experiences offered by STW will equip a young woman to plan and prepare for her future and have the resources upon which to assure her the quality of life she dreams for herself and her dependents.

STW is intended to bring together all of the initiatives for educational reform including Goals 2000 and SCANS competencies. At present, schools and employers are operating on different tracks. Employers claim that one fifth of their employees are not proficient in their jobs. Employers ignore grades and transcripts, but rather desire an employee with the right attitude, behavior and value of work (Brustein, 1995).

No longer can a person expect to enter a career track directly from school. Employment today and for the future comes not from "what you know or who you know", rather, employment will depend on "who knows you" and the type of work and skills you can bring (Feller, 1995).

STW puts career education back into education. The 1972 Career Education Act did not have any mandates. STW, however, mandates career awareness and exploration and counseling not later than 7th grade, with encouragement for its being undertaken as early as possible, including a focus on nontraditional options.

STW connects education both academic and vocational; both secondary (including middle school) and postsecondary.

STW encourages the partnerships, with focal relationships already noted as being so valuable to the total development of a young adolescent.
STW is for all students with mandates and provisions and accountability concerning equal access and success for young women, representing the total female population. The School-To-Work initiative can serve as the instrument to change the educational process and its outcomes for adolescent females. The three basic components of STW, in conjunction with the mandated provisions—which include comprehensive career education programs—are gaps in the present educational system. Once in place, they work toward retaining the engagement of young women within the system and fully developing their interests and skills, so that they leave the educational setting prepared to enter and succeed in the world of work.
CHAPTER FOUR

Summary and Recommendations

The importance of and support for guidance and counseling curricula and programs are acknowledged by the mandates for comprehensive career development programs of the School-To-Work Opportunities Act.

The STW Act further acknowledges the importance of beginning career education as early as possible, but not later than 7th grade, with interested students selecting an initial career major not later than the beginning of the 11th grade. This timeline coincides with the period of adolescence—that fragile timeline.

Likewise, the STW Act recognizes the need to promote and provide nontraditional opportunities to expand the options for career selection by adolescent females.

By mandating that all students explore work opportunities, the STW Act opens doors regardless of a student’s differential attributes. Barriers are further diminished because of the necessity for the formation of partnerships (focal relationships) to fulfill the purposes and intent of the STW Act.

Guidance and counseling curricula and programs must serve as pivotal points within the educational reform movement demanded by the populace and thrust forward by the Legislative actions of the Goals 2000: Educate America Act and SCANS (National Skills Standards Act of 1991). The 1989 National Career Development Guidelines provide a sturdy framework for guidance and counseling personnel to strengthen or design comprehensive career development programs.

The middle school guidance counselor has always been challenged by the period of adolescence, when a student is not a child, not an adult. Too often, adolescent females have been placed in a time capsule by counselors, parents, and others, all waiting for this "hormonal period" to pass. The outcome of this action has been the failure of one-half of America's population to be educated and to experience activities which cannot only lead to self-fulfillment for the adolescent female but reap the rewards for all of society in the form of their contributions.

As the review of literature noted, it has never been easy for adolescent females to achieve total self-fulfillment. The 20th century has proven to be a very difficult time for adolescent females. Morals, values, family structure, lifestyles, and the pace set by technology and transportation, to name a few factors have resulted in a significant shift for young women.
Today, the responsibility of the middle school guidance counselor to assist the adolescent female prepare for and be successful in the world of work presents a tremendous challenge. Today's adolescent female is in a more complex situation than the "hormonal time capsule." To paraphrase Mary Pipher (1994) despite decades of advances in gender equity, the "junk values" of today's mass culture poison young women's lives. It is a culture teaching girls they must drown their true selves to fit a world that values appearance over character, conformity over individuality, violence and in-your-face defiance over mutual respect and negotiation, quick and simple solutions over perseverance, and the notion that buying more consumer goods buys fulfillment. The culture, as seen through the eyes of seventh and eighth-graders, is a very violent, sexualized culture with a very degraded definition of womanhood--and for that matter, of manhood.

Guidance and counseling curricula and programs must acknowledge gender differences and differential attributes to be successful. As guidance counselors and teachers work with students on their career planning, they must remember the inner conflict the adolescent female is experiencing, her interpretation of relationships of loyalty and fairness, and the constant question, "is it the right thing to do?" The counselor must remember the perceived and real barriers for the female adolescent who is a minority, talented, or challenged, and the conflicts of interest and the realities of the world. The counselor must remember the concerns of students with differential attributes, about being "tracked" or obligated to certain career selections.

The pivotal position of a comprehensive development program in the design and implementation of a local school-to-work opportunities program is exciting. The curriculum must be integrated. Staff will need to team. External resources must be utilized. Students must learn and apply their knowledge.

The first challenge facing school counselors as they attempt to assume a co-equal role in developing integrated curricula is to convince teachers, administrators, parents and students that the ability to apply knowledge is as important for students as knowledge itself (Feller, et al. 1992).

The future of workplace education is dependent upon practice, principles, policy and philosophy. Envisioning the future for the year 2020 is not an easy task. The tools for building a vision are set out by Miller (1994):

1. **Practice**: Practice helps young people feel good about themselves and helps students find meaning in educational activity.

2. **Principles**: Principles grow out of successful practice. The ideas underlying successful practice become the issue for stating principles for future practice. Thus, as principles emerge, they serve as guides for thinking about the future.
3. **Policy:** Policy has a distinctly different role from practice and principles. It is policy that enables practice to keep up with accepted principles.

4. **Philosophy:** Philosophy seeks to answer the following three fundamental questions: (1) What is real? (2) What is true? and (3) What is of value? A coherent philosophy of workplace education offers a primary way of developing appropriate responses to future workplace education issues.

Excerpts, directly from related pieces of workplace education legislation, are inserted into this literature review to provide a comprehensive document of practices, principles, policy and philosophy. These excerpts demonstrate a systemic change in attitude and expectations of guidance and counseling curriculum and programs for the 21st century.

This review of literature deals with the examination of legislation to eliminate sex bias and stereotyping in education and which offers incentives to assure economic self-sufficiency for females. Guidance and counseling curricula and programs are integral components of the legislation.

The review identifies the areas of the role and responsibilities of the middle school; the physical and mental stages of adolescent females; learning styles; internal and external barriers and facilitators to education and career planning; and the affect of assessment tools—all necessary elements of a comprehensive career development program for adolescent females. Based on this review, the reviewer has identified ten questions for critical inquiry which should be addressed by educators. The examination, by educators, of these questions will (a) strengthen local guidance programs, (b) establish the role of the guidance program for the 21st century, and (c) make a significant difference for adolescent females.

The process for critical inquiry is to secure responses to the following:

1. Is there a problem?
2. Whose interest is being served?
3. How can the situation be changed?

The reviewer recommends local educators conduct analyses of their school programs, school environments, and career development programs to determine the answers to several questions.

**Questions for Critical Inquiry**

1. Is the district in compliance with all state and federal laws for educational equity: Title IX (including a sexual harassment policy and procedures?) Title VI, Title IV, Section 504 and ADA
2. How does the district promote math, science, technology and nontraditional education/opportunities for girls?

3. Are all licensed school administrators, teachers and counselors required to meet gender and race equity goals for student achievement and classroom practices?

4. Is there integration of non-sex-stereotyped career planning in the curriculum which exposes girls to a broad range of realistic career goals?

5. Have collaborative partnerships been established among private, public and nonprofit organizations to provide training that directs girls into high-demand occupations leading to economic security?

6. Are adolescent females encouraged to take risks?

7. How are parents involved in the career planning for their adolescent female children?

8. Is the counseling program crisis-oriented, or is it a comprehensive program that

   • Is identifiable but integrated within other programs within the institution?
   • Enhances the career development, knowledge, skills and abilities of all students by establishing program standards?
   • Uses coordinated activities designed to support student achievement of the standards?
   • Supports the delivery of the program through qualified leadership, diversified staffing, adequate facilities, materials, financial resources, and effective management?
   • Is accountable with evaluation based on program effectiveness in supporting student achievement?

9. Do counselors serve a co-equal role with the education/career development of students, or do they perform ancillary services?

10. Is accountability for educational equity included in the School Improvement Plan?

The answers obtained from the process of critical inquiry should serve to identify the status, strengths, areas for improvement and assurance of the inclusion of equity, as educators move forward with educational reform.
REFERENCES

Affects of Career Education. (February, 1973) speech by the Honorable Shirley Chisholm, D-NY, before the National Conference on Career Education - Implications for Minorities, Washington, D.C.


Johnson, Roosevelt, Black Agenda for Career Education. (1974). ECCA Publication, Columbus, OH.


Lewis, M.V. Recent Research on Labor Market Outcomes of Secondary Vocational Education. (1983). The National Center for Research in Vocational Education. The Ohio State University, Columbus.


APPENDIX A
National Career Development Guidelines

MIDDLE/JUNIOR HIGH SCHOOL STUDENT
COMPETENCIES AND INDICATORS

Self Knowledge

COMPETENCY I: Knowledge of the influence of a positive self-concept.
- Describe personal likes and dislikes.
- Describe individual skills required to fulfill different life roles.
- Describe how one's behavior influences the feelings and actions of others.
- Identify environmental influences on attitudes, behaviors, and aptitudes.

COMPETENCY II: Skills to interact with others.
- Demonstrate respect for the feelings and beliefs of others.
- Demonstrate an appreciation for the similarities and differences among people.
- Demonstrate tolerance and flexibility in interpersonal and group situations.
- Demonstrate skills in responding to criticism.
- Demonstrate effective group membership skills.
- Demonstrate effective social skills.
- Demonstrate understanding of different cultures, lifestyles, attitudes, and abilities.

COMPETENCY III: Knowledge of the importance of growth and change.
- Identify feelings associated with significant experiences.
- Identify internal and external sources of stress.
- Demonstrate ways of responding to others when under stress.
- Describe changes that occur in the physical, psychological, social and emotional development of an individual.
- Describe physiological and psychological factors as they relate to career development.
- Describe the importance of career, family, and leisure activities to mental, emotional, physical and economic well-being.

Educational and Occupational Exploration

COMPETENCY IV: Knowledge of the benefits of educational achievement to career opportunities.
- Describe the importance of academic and occupational skills in the work world.
- Identify how the skills taught in school subjects are used in various occupations.
- Describe individual strengths and weaknesses in school subjects.
- Describe a plan of action for increasing basic educational skills.
- Describe the skills needed to adjust to changing occupational requirements.
- Describe how continued learning enhances the ability to achieve goals.
- Describe how skills relate to the selection of high school courses of study.
- Describe how aptitudes and abilities relate to broad occupational groups.

COMPETENCY V: Understanding the relationship between work and learning.
- Demonstrate effective learning habits and skills.
- Demonstrate an understanding of the importance of personal skills and attitudes to job success.
- Describe the relationship of personal attitudes, beliefs, abilities and skills to occupations.

COMPETENCY VI: Skills to locate, understand, and use career information.
- Identify various ways that occupations can be classified.
- Identify a number of occupational groups for exploration.
- Demonstrate skills in using school and community resources to learn about occupational groups.
- Identify sources to obtain information about occupational groups including self employment.
- Identify skills that are transferable from one occupation to another.
- Identify sources of employment in the community.

COMPETENCY VII: Knowledge of skills necessary to seek and obtain jobs.
- Demonstrate personal qualities (e.g., dependability, punctuality, getting along with others) that are needed to get and keep jobs.
- Describe terms and concepts used in describing employment opportunities and conditions.
- Demonstrate skills to complete a job application.
- Demonstrate skills and attitudes essential for a job interview.

COMPETENCY VIII: Understanding how work relates to the needs and functions of the economy and society.
- Describe the importance of work to society.
- Describe the relationship between work and economic and societal needs.
- Describe the economic contributions workers make to society.
- Describe the effects that societal, economic, and technological change have on occupations.

(More →)
Career Planning

COMPETENCY IX: Skills to make decisions.
- Describe personal beliefs and attitudes.
- Describe how career development is a continuous process with series of choices.
- Identify possible outcomes of decisions.
- Describe school courses related to personal, educational and occupational interests.
- Describe how the expectations of others affect career planning.
- Identify ways in which decisions about education and work relate to other major life decisions.
- Identify advantages and disadvantages of various secondary and postsecondary programs for the attainment of career goals.
- Identify the requirements for secondary and postsecondary programs.

COMPETENCY X: Knowledge of the interrelationship of life roles.
- Identify how different work and family patterns require varying kinds and amounts of energy, participation, motivation, and talent.
- Identify how work roles at home satisfy needs of the family.
- Identify personal goals that may be satisfied through a combination of work, community, social, and family roles.
- Identify personal leisure choices in relation to lifestyle and the attainment of future goals.
- Describe advantages and disadvantages of various life role options.
- Describe the interrelationships between family, occupational, and leisure decisions.

COMPETENCY XI: Knowledge of different occupations and changing male/female roles.
- Describe advantages and problems of entering nontraditional occupations.
- Describe the advantages of taking courses related to personal interest, even if they are most often taken by members of the opposite gender.
- Describe stereotypes, biases, and discriminatory behaviors that may limit opportunities for women and men in certain occupations.

COMPETENCY XII: Understanding the process of career planning.
- Demonstrate knowledge of exploratory processes and programs.
- Identify school courses that meet tentative career goals.
- Demonstrate knowledge of academic and vocational programs offered at the high school level.
- Describe skills needed in a variety of occupations, including self-employment.
- Identify strategies for managing personal resources (e.g., talents, time, money) to achieve tentative career goals.
- Develop an individual career plan, updating information from the elementary-level plan and including tentative decisions to be implemented in high school.
APPENDIX B

Materials marked with an * were reviewed and approved by a curriculum review task force sponsored by Girls Count, Inc.

COMMERCIAL PRODUCTS


*Connections. (1981) Boston, YWCA.


Achievement Tests


Narrow-Band Cognitive Tests

Leiter International Performance Scale. 1948. Age span: 2.0 to 18.0. Measures reasoning skills. Has high correlations with the SB-LM. Low-cultural content, nonverbal. Directions are pantomimed and the respondent makes choices.


Breaking the Chain of Stereotyping. Ohio Department of Education.

Broad-based Cognitive Tests


Crossword Magic - an interactive, simulation and decision-making game.


Get A Life Program - A personal portfolio and planning for life and career development. American School Counselor Association.

Human Figure Drawing Test. 1986. Age span: 5.0 to 10.0. Estimates nonverbal conceptual ability with a norming sample representative of the U.S. population.

ISREL -7PC Software path analytical models. (Jorskgv & Sorbom, - 1989) are developed separately for boys and girls thereby giving a more insightful exploration of sex by treatment interaction.

Kaufman Assessment Battery for Children (KABC). 1983. Age span 2.6 to 12.6. Assess problem-solving skills, using simultaneous and sequential processing and academic verbal skills. Nonverbal scale nationally normed. Spanish directions given for mental processing scales. Signing and other languages may be used for directions in mental processing tests.


Magic Circle - measures self-esteem.

Matrix Analogies Test. 1985. Age span: 5.0 to 17.0. Measures nonverbal reasoning by analogies, pattern completion, serial reasoning, and spatial visualizations.


Opening Career Options Workshop.

Personality and Adaptive Behavior Tests

Children's Attention and Adjustment Survey. 1990. Age span: 5.0 to 13.0. Measures inattention, impulsivity, hyperactivity, and conduct problems with home and school survey forms.


Realizing the Dream: Career Planning for the 21st Century. A program to better prepare parents of middle and high school-aged children to help their children with career planning. Testing (ACT) and the National Career Development Association (NCDA), 1993.

Selected Assessment Measures:

Receptive One Word Picture Vocabulary Test. 1988. Age span: 2.0 to 11.11. English and Spanish forms used to measure respondent's choice of a picture to correspond with an orally given stimulus word.


Test of Non-Verbal Intelligence-2. 1990. Age span: 5.0 to 85.11. Language-fee measure of intelligence with sets of figures in which one or more is missing. Instructions may be pantomimed.

The above list is neither exhaustive nor complete. As the review of literature reports, the research and documentation of guidance and counseling curriculum and programs for adolescent females to prepare for the world of work is very limited and dated. It is the recommendation of the reviewer that further research be conducted to identify current models and practices.

The Piers-Harris Children’s Self-Concept Scale (1969).

The National Career Development Guidelines: Competencies and Indicators for Elementary School Level, Middle School Level, High School Level, and Adult Level, NOICC, 1989.

Vineland Adaptive Behavior Scales. 1985. Age span: 3.0 to 12.11. Spanish survey forms are available and used in norming. Measures communication skills, daily living skills, socialization skills and maladaptive behaviors by interview with caretaker.

Visual-Motor Integration Tests

Expressive One Word Picture Vocabulary Test. 1979. Age span: 2.0 to 11.11. Measures vocabulary by naming pictures. Translated from English to Spanish recording forms. English form can be used to estimate English fluency for limited-English Speakers.

Vocational Tests


Woodcock Language Proficiency Battery, Spanish Form. 1980. Age span: 3.0 to 80.0. measures oral language, reading, and written language.

It was a pleasure preparing this material.