NATIONAL WOMEN'S LAW CENTER
EXPANDING THE POSSIBILITIES

January 25, 2002

Hans Meeder
Deputy Assistant Secretary
Office of Vocational and Adult Education
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400 Maryland Avenue, SW
Washington, DC 20202

Dear Deputy Assistant Secretary Meeder:

Thank you for this opportunity to provide you with comments on issues that we believe should be considered and addressed in the reauthorization of the Carl D. Perkins Vocational and Technical Education Act of 1998 ("Perkins Act"). The National Women's Law Center is a non-profit organization that has been working since 1972 to advance and protect women's legal rights. The Center has considerable experience and expertise in the area of education, with a specific focus on the full enforcement of Title IX of the Education Amendments of 1972 ("Title IX"), the law that prohibits sex discrimination in education programs or activities receiving federal financial assistance. In the area of vocational education, the Center works to expand educational opportunities for young women and girls by identifying and addressing discriminatory barriers and making non-traditional careers, such as those in high technology, accessible to them. The following comments expand on the brief oral remarks we made during your office's outreach meeting on January 16, 2002.

School reform efforts nationwide have embraced vocational and technical education as a way to make learning relevant for students and better prepare them for the workplace of the 21st century. School systems have revamped the vocational school model of the past to encompass learning about the latest technologies, such as robotics and computer circuitry. School districts are increasingly incorporating career preparation into traditional academic schools by offering innovative programs such as career pathways, industry-sponsored certification programs, or even entire career-focused academies for students. Now, traditional vocational schools are updating their course offerings, adding high tech programs like computer circuitry and chemical engineering, and working to prepare their students for post-secondary education. However, these exciting new opportunities in vocational and technical education are mirroring the same sex segregated pattern that historically has plagued traditional vocational education.

Female students continue to be concentrated in traditionally female, low-paying programs, such as the service industry, while they are practically non-existent in many of the new technical or mechanical fields. Counseling and admissions methods too frequently fail to provide young women and girls with access to the full range of career options, and in some cases even encourage them to pursue stereotypically "female" career paths, such as cosmetology. Moreover, female students often encounter outright hostility in many technical or non-traditional classrooms, from teachers and

fellow students.

The few studies that have been conducted bear out this pattern of sex segregation. A 1998 survey of fourteen School to Work sites found more than 90% of girls clustered in 5 sites that trained them for jobs in the traditionally female fields of health, teaching, graphic arts and office technology.[1] A study of Wisconsin's School to Work programs revealed that female students were concentrated in just a few programs, with 81% of them enrolled in Health or Finance programs. As a result, female graduates of the School to Work program earned, on average, two dollars less per hour than their male peers.[2] Further, although teen girls are now using computers and the Internet at rates similar to their male peers, they are five times less likely to consider a technology-related career or plan on taking post-secondary technology classes.[3] Thus, for example, male 1994 high school graduates were significantly more likely to have taken computer science and computer applications courses than were female graduates. The only computer-related area where girls took more courses was in data entry.[4]

At the post-secondary level, associate degree programs also show the same marked sex segregation. Women in these programs are almost four times as likely as men to major in health fields and also more likely to major in business and office fields. In contrast, male students in associate degree programs are more than five times as likely to major in technical education and more than fourteen times as likely to major in Trade and Industry programs.[5]

This educational segregation has serious implications for young women's economic well-being, as well as for our economy as a whole; we can not afford to ignore the talents of half our workforce. Women are persistently underrepresented in fields that increasingly are incorporating high tech skills into their job descriptions and that provide high wages. For example, the average home health aide makes about $17,000 a year, while an automotive technician with knowledge of computer circuitry can make $50,000-$100,000; the average pre-school teacher makes about $19,000, while the average engineering technician makes about $41,000. Additionally, the predominantly male, high-skill job categories also offer more room for advancement and more job stability than the traditionally female, service-oriented jobs.

The reauthorization of the Perkins Act in 2003 provides an opportunity in the 21st century to improve programs and services so that girls and young women can fully access and benefit from the full range of career education opportunities. As the Department begins its re-examination of the Perkins Act, we urge you to review the existing gender inequities in vocational education and craft provisions for the law that will begin to address the problems. Based upon the information we have reviewed, some of which has been provided by individuals involved in implementing and monitoring programs, the Center provides some of our initial recommendations for improving the Perkins Act:

- **Require meaningful accountability through improved data collection and reporting.**

Additional separate measurements and disaggregation of data is required to ensure full participation in and completion of the full range of vocational and technical programs by female students. Currently, states are required to report male/female enrollment data using 16 career clusters: Agriculture & Natural Resources; Architecture & Construction; Manufacturing;

Transportation, Distribution and Logistics; Information Technology; Wholesale/Retail Sales and Services; Finance; Hospitality and Tourism; Business and Administration; Health Sciences; Human Services; Arts, Audio-Video Technology and Communications; Law and Public Safety; Scientific Research and Engineering; Education and Training; and Public Administration and Government. Additionally, states must disaggregate each cluster by race/ethnicity and gender. This system of requiring states to report by broad career clusters does not provide meaningful data because it masks the continuing pattern of sex segregation in vocational programs within those clusters. Thus, enrollment and completion data combined into a cluster often fails to signal significant sex segregation problems. Further, the collection of data does not enable an analysis of whether female students across all groups -- race, ethnicity, disability -- are participating in and completing non-traditional programs.

The law should require that states submit to the Department data that provides female student enrollment and completion in specific vocational program areas. Further, the collected data must be disaggregated by sex, race, national origin and disability, as well as disaggregated by race, sex, national origin and disability within each sex.

- **Require a full-time state level leadership position with responsibility for gender equity in vocational and technical programs.**

Prior to the reauthorization of the Perkins Act in 1998, states were required to spend at least $60,000 to support a gender equity administrator. State gender equity administrators served as the linchpin for ensuring gender equity in vocational education in their states, providing a broad range of services. For example, they provided technical assistance to local education agencies and reviewed state and local plans for sex stereotyping and bias. Further, in many states, they were the only state official responsible for handling compliance under Title IX.

Given the persistent disparities between males and females in vocational and technical education, there is a great need for a gender equity administrator in each state Department of Education. The law should require a funded gender equity administrator in each state to help ensure access to vocational opportunities by female students and to assist in handling compliance issues under Title IX that arise in vocational programs.

- **Provide specific funding for programs that help female students access and succeed in non-traditional career preparation.**

As discussed above, sex segregation continues to be the norm in secondary and post-secondary vocational programs. Further, sex discrimination, stereotypes and biases of guidance methods, school staff and fellow students too frequently discourage female students from entering traditionally male fields. Thus, a 2000 report of the United States Commission on Civil Rights concluded that "[t]hrough lack of counseling; stereotypical socialization; discouragement; less aggressive inclusion of parents in designing programs; gender-biased teaching styles, resources, and testing; and other barriers, girls are steered from math, science, engineering, and other technical fields."[6] Similarly, a Congressional Commission studying the lack of women in science, engineering and technology concluded that "[a]ctive discouragement . . . contribute[s] to girls' lack of interest in

[science, engineering and technology] careers."[7]

The law should provide funding for programs aimed at eliminating stereotypes and bias in vocational education, promoting activities designed to increase enrollment in courses that lead to employment in non-traditional occupations and funding for much-needed additional supports such as childcare. Such funds are particularly important for secondary school female students, who do not benefit from single parent and displaced homemaker programs that may be provided at the post-secondary level.

- **Prevent the use of career counseling and assessment methods that reinforce existing gender stereotypes and discourage female students from pursuing non-traditional vocations.**

Career counseling should be designed to expose all students to a variety of career options and to help them achieve their goals. However, in many schools, counseling programs may simply reinforce outmoded stereotypes regarding work. For example, when the Department of Education investigated a regional vocational school in Maine, the Department found that the school was using an out-dated recruiting video, the introduction of which contained an image offensive to women, resulting in very low enrollment of female students. The Department also found that guidance counselors at the local middle school simply assumed that girls would not be interested in the traditionally male skilled trades offered by the vocational school. Based on the assumption that "young ladies don't like to do the dirty or heavy work," the counselors failed to encourage girls to consider enrolling in non-traditional programs and even actively discouraged girls who expressed interest in non-traditional programs.[8] In addition, many career counselors use interest inventory assessments in order to determine the careers for which a student is particularly well-suited. However, many of these assessment tools have an inherent gender bias that steers female students towards traditionally female careers.[9] For instance, the Armed Services Vocational Aptitude Battery (ASVAB), used for career counseling by about sixty percent of high schools, has been shown to steer women away from technical careers and towards clerical and health careers.[10]

The law should require that career counseling and assessment methods be non-discriminatory and not steer female students away from non-traditional areas. Assessments used in vocational programs should be used only for purposes for which the assessments have been deemed valid and reliable.

- **Ensure that female students in vocational programs are provided with equal access to academic and high technology course opportunities.**

Command over higher level academics, such as math and science, as well as high-level computer and technology skills, are increasingly important to the 21st century workplace. However, female students are less likely to get the necessary training in computers and technology beyond the traditionally female areas of word processing or data entry and less likely to be enrolled in Advanced Placement (AP) courses. Nationwide, high school technical vocational programs, including computer applications, computer programming, data processing, communication technology, electronics technology, and chemical technology, are dominated by male students.[11] Girls comprised

only 37% of students enrolled in Advanced Placement (AP) computer science classes across the nation; in twelve states, girls comprised less than 20% of the classes, according to the Department of Education's estimates for 1997. In New York City, for example, students at the predominantly female vocational schools have no access to any AP courses in Calculus, Statistics, Biology, Chemistry, Physics, or Computer Science, while the predominantly male vocational schools offer AP math and AP science courses. Further, the New York City Board of Education has implemented the Cisco Networking Academy Programs, a program which leads to industry certification in computer networking, at five vocational high schools; none of those schools are predominantly female.

The law should require that all vocational students – male and female – have access to high level academic courses and high technology programs. For example, AP Biology and Chemistry should be offered to students in health occupations programs, which are predominantly female programs. High level academic courses and high technology programs help students prepare for high-wage opportunities in their field.

- **Require the development and dissemination of research on existing barriers for female students in vocational programs.**

Little research has been conducted by the federal government that seeks to assess whether the vocational education system provides equal access and opportunities for women and girls. Indeed, the Department's *Trends in Educational Equity of Girls and Women*, published in June 2000, includes no information about vocational education. Where private studies have been conducted, the information indicates that women and girls do not have equal opportunities to succeed in vocational programs. For example, the National Coalition for Women and Girls in Education recently released the publication *Invisible Again: The Impact of Changes in Federal Funding on Vocational Programs for Women and Girls*, which reveals that in far too many states, support and programs for women and girls are collapsing. Any assessment of the quality of vocational education is incomplete without an assessment of whether that education is being provided on a gender-equitable basis.

The law should require research on existing barriers for female students in vocational programs, including the identification of practices that have successfully addressed those barriers. Such research will help raise awareness of the existing problems and serve as a catalyst for improving the implementation of vocational and technical education programs so that female students begin to have equal educational opportunities.

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These recommendations address some of the changes that the National Women's Law Center believes are necessary to increase opportunity for girls and young women in vocational and technical programs. Indeed, schools providing students with a vocational education will not adequately meet the needs of the 21st century until their female students are provided with equal access and opportunity in all of their programs. We hope that you will take these initial recommendations into serious consideration as you begin your re-examination of the Perkins Act.

We look forward to working with you on the reauthorization of the Carl D. Perkins Vocational and Technical Education Act of 1998. If you have any questions, please feel free to contact me at (202) 588-5180.

Sincerely,

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Senior Counsel

Endnotes

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7.CONGRESSIONAL COMMISSION ON THE ADVANCEMENT OF WOMEN & MINORITIES IN SCIENCE, ENGINEERING AND TECHNOLOGY DEVELOPMENT, LAND OF PLENTY: DIVERSITY AS AMERICA'S COMPETITIVE EDGE IN SCIENCE, ENGINEERING AND TECHNOLOGY 2 (Sept. 2000).

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9.Susan D. Phillips & Anne R. Imhoff, *Women and Career Development: A Decade of Research*, ANNUAL REV. OF PSYCHOLOGY (Jan. 1, 1997); HELEN S. FARMER, EDUCATIONAL RESOURCES INFORMATION CENTER, ERIC DIGEST 391108 30, GENDER DIFFERENCES IN ADOLESCENT CAREER EXPLORATION (Jan. 1995).

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