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ABSTRACT

In January 1993, Florida's Correctional Education School Authority (CESA) studied the vocational interests of 125 randomly selected female inmates at the 3 female state correctional facilities in Florida. After two additional informal studies, an interim oversight review was conducted to determine the following: whether CESA was in compliance with state/federal gender equity laws; whether the data compiled by CESA regarding female vocational preferences supported the agency's decision not to pursue implementation of nontraditional vocational education (VE) programs for female prisoners; and whether VE programs for males and females are funded equally. It was concluded that the female inmate vocational preference inventories taken by CESA in March 1993 were statistically flawed and an invalid measure on which to base VE service delivery programming to female inmates and that CESA spent more money on male programs in the previous fiscal year than on total programming for females over the past 5 fiscal years. It was recommended that Florida's state legislature take immediate action to eliminate the identified inequalities between VE programs for male and female inmates. (Appendixes constituting approximately 50% of this document contain the report "Preliminary Vocational Program Survey of Female Inmates" and a review of the study and its findings.) (MN)

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OVERSIGHT REPORT ON NONTRADITIONAL VOCATIONAL TRAINING FOR FEMALE INMATES

March 1, 1994

Representative Kelley R. Smith
Chairman
House Corrections Committee
Staff Director: Patrick L. "Booter" Imhof
Staff Contact: Laura E. Taylor, Staff Attorney

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Introduction and Discussion

Introduction

In January, 1993, the Correctional Education School Authority (CESA), in response to questions asked by several members of the House Corrections Committee regarding the status of vocational education programs for female inmates, conducted a study which was designed to show the vocational interests of randomly selected female inmates at the three female state correctional facilities in Florida. The results of that study, entitled ***Preliminary Vocational Program Survey of Female Inmates,*** were released in March, 1993.[1] Findings indicated that on March 5, 1993, 125 randomly selected female inmates at Florida Correctional Institution participated in taking the Holland Self-Directed Study (HSDS), Form E.[2] There were two later test groups from both Broward Correctional Institution and Jefferson Correctional Institution, but no formal results from those studies were published.

The purpose of this interim oversight report was to: (1) determine if CESA was in compliance with state and federal law regarding gender equity programs for female inmates, and (2) review the data compiled by CESA regarding female vocational preferences and to determine

[1]Please see Appendix A for a complete copy of the study.

[2]The Holland Self-Directed Study (HSDS) was designed as a career assessment instrument, and is regarded, according to the sales literature, as the standard in career interest inventories. Both staff investigation and review of the statistical data presented by CESA in its March, 1993, report indicate that the results given are from samples taken at Broward and Jefferson Correctional Institutions, and not Florida Correctional Institution. The raw data and surveys given at Florida Correctional Institution were not available. CESA's vocational administrator, Mr. Bill Wooley, indicated to staff in a November, 1993, telephone interview that those documents had been "thrown away" when he took over his current position in March, 1993.

whether that data supports the decision made by the agency not to pursue the implementation of "non-traditional", more male-oriented vocational programs in female correctional institutions, and (3) determine the cost allocations for both male and female programs and determine, what differences, if any exist between the amount spent for male inmate vocational programs and female inmate vocational programs.

Discussion

Legal Responsibilities Under Florida and Federal Law

Section 944.24(3), F.S. (1993), specifically provides:

> (3) Women inmates shall have access to programs of education, vocational training, rehabilitation, and substance abuse treatment that are equivalent to those programs which are provided for male inmates. . . .

This language was part of the 1991 Corrections Equality Act (CS/HB 1685), sponsored by Representative Carol Hanson, which required equity in all correctional programs for female inmates as well as female correctional officers.[3] The language in subsection (3) above was not effective until October 1, 1993; however, it appeared as a footnote in s. 944.24, F.S. (1992 Supp.), and in full text in Chapter 91-225, Laws of Florida.

Title IX of the Education Amendment of 1972, provides, among other things, for equality for women in educational programming. This law apparently applies to educational programs

[3]This legislation was also developed and passed in response to a lawsuit filed by the federal government against the State of Florida and the Florida Department of Corrections; ***United States v. State of Florida, Florida Department of Corrections, et. al.***, Civ. Act. No. 86-7330 (N.D. Florida, 1986). The case was settled pursuant to order of the court.

for female inmates as well as gender equity programs for women outside prison walls. While the United States Supreme Court has not ruled on the issue of equality in programming for female inmates, a federal district court in Nebraska has recently ruled on a class action suit brought by female inmates at Nebraska's only female prison. In ***Klinger v. Nebraska Dept. of Correctional Services,*** 824 F. Supp. 1374 (D. Neb. 1993), a class of female inmates sued the State of Nebraska Department of Correctional Services, claiming, among other things, that the department discriminated against female inmates in educational and vocational programming. In ruling against the department, the federal district judge in ***Klinger*** held: (1) female inmates' equal protection rights were violated by programs and services relating to pay, education and vocational training, law library facilities, health and dental care and recreational facilities and activities when compared with similar programs and services available at the men's penitentiary, (2) discrimination in education and vocational training violated Title IX of the Education Amendment of 1972; and (3) maintaining adequate law libraries and denying segregation and orientation inmates access to law libraries or to legal aid violated inmates' right of access to courts.

Agency Response to Legislative Inquiry

As mentioned in the introduction to this report, CESA responded to legislative inquiry concerning equity in female vocational programming by conducting several studies, one of which was published in March, 1993. That study purported to use the Holland Self-Directed Study (HSDS) as the assessment mechanism from which the agency eventually based its decision regarding vocational programming for female inmates.

The HSDS is based on the Holland RIASEC theory, which asserts that most people can be categorized as one of six personality types: Realistic, Investigative, Artistic, Social, Enterprising, or Conventional. Form E of the HSDS is suggested for adults with limited reading ability and is usually individually administered. The Holland Form R is written at the 8th grade level and is recommended for the high school graduate level individual or adult. The results of the SDS Form E yield a two letter code score, which is matched with jobs closely reflecting the interests of individuals with lower education levels. The "Job Finder", Form E, is utilized to identify jobs that fall within the likes and dislikes of the individual tested and provides for 30, two (2) letter code combinations matched with jobs identified as suitable to those worker traits. Extended job-related research may be accomplished by utilizing the "Dictionary of Holland Occupation Codes." The publisher of the HSDS material makes no claims that this assessment instrument distinguishes between "traditional v. non-traditional" jobs. Apparently, this new use of the instrument was pioneered by CESA.

Review of Agency Data

The first area of review on the data compiled by CESA is the demographics-claimed/educational level. The following chart shows the demographics claimed and educational levels of those individuals participating in the study. The figures for inmate responses at Florida Correctional Institution were not available from the agency.

Claimed Education Level

Institution	No H.S.	Some H.S.	H.S. Grad	H.S./Tech	College
Broward CI	8	34	7	14	25
Jefferson CI	5	31	10	11	16
Total	13	65	17	25	41

As can be seen from the chart above, 48 percent of the inmates participating in the surveys claim less than a high school level education. Those individuals claiming a high school or higher level of education make up 52 percent of the surveyed population. The claimed education level of the female offender is higher than their male counterparts, according to figures listed in the 1992-93 Annual Report of the Department of Corrections. CESA's exclusive use of the level E form of the HSDS assessment instruments assessed interest in jobs for those with lower education levels. Utilization of Form R for those individuals claiming a high school or better education may have yielded information that would support the selection and implementation of new vocational programs. No raw data was available on the Florida Correctional Institution (FCI) survey.

With regard to participant selection data, the following chart shows reported job assignments of those inmates participating in the CESA survey:

Reported Job Assignment

Facility	CESA	PRIDE	Dorm	Maint.	F/S	Other	None
Broward	57	2	11	2	7	8	1
Jefferson	53	0	3	3	2	10	2
Total	110	2	14	5	9	18	3

CESA reported in its March, 1993, preliminary findings that the selection process was random; however, figures in the chart above indicate that 68 percent of the participants reported assignments to CESA education programs. Additionally, in the official taped minutes of the February 10, 1994, meeting of the Board of Correctional Education, the agency's director, Dr. Carl J. Zahner, admitted to the board members and one board member stated with particularity that the participant selection process for all of the studies conducted were ***not*** random as reported in the March, 1993, preliminary report. The fact that the participant selection process was not random and the fact that no additional information on the sampling procedures are included in the report, indicates that the study may not have yielded participants that were representative of the general female inmate population.

Statistical Analysis

Recognizing that committee staff were not qualified to make anything but a cursory statistical analysis on the data presented by CESA with regard to the HSDS survey, the staff of the Economic and Demographic Research (EDR) of the Joint Legislative Management Committee (JLMC) was asked to look at the raw data gathered by CESA and make an independent statistical analysis of that data. CESA was asked to provide the actual surveys taken from the inmates who had participated in the assessment, and those were provided, with the exception of the actual surveys taken at Florida Correctional Institution.[4] The memorandum released from EDR on January 25, 1994, regarding the its statistical analysis of the surveys is attached as Appendix B.[5]

Earlier in this report, it is noted that the HSDS does not differentiate between traditional and non-traditional jobs. The EDR analysis also found this to be problematic, stating that CESA assumes that interest in "realistic" jobs represents a high level of interest in non-traditional jobs but no justification is given for this assumption. Because of this assumption, it was EDR's opinion that it seriously compromises the conclusions drawn from the research. The EDR analysis also found problems with the sampling procedures, not knowing at the time of analysis that the sample was not random. Racial composition of the sample was found to be quite close to that of the

[4]Please see footnote 3 for additional information.

[5]The EDR analysis explains in detail how the HSDS surveys work and gives a section by section explanation of the survey. Staff for the House Corrections Committee reviewed the HSDS manuals, and found the EDR staff explanation of the survey to be an accurate depiction of how the assessment instrument works and how it is scored. Because the EDR report gives an excellent explanation of the processes and procedures of the HSDS, a second explanation will not be given in this report.

institution (in the FCI preliminary report), but no information on race was given from the Broward and Jefferson surveys. The EDR analysis did find, however, that the survey samples could be biased with respect to age, in particular towards younger women. EDR found that while just 13.5 percent of the Broward Correctional Institution (BCI) population is less than 26, 20.7 percent of the sample there fell into this age range. Similarly, Jefferson Correctional Institution (JCI) only has 19.6 percent of its population under the age of 26, but 30.1 percent of the JCI sample was under the age of 26. It was EDR's opinion that this bias could skew results since it is likely that younger women have different abilities, interests and skills than older women.

In order to evaluate the accuracy of the data CESA obtained and the corresponding results, EDR retabulated the raw data from the HSDS booklets administered at JCI. Upon retabulation of the raw data, the EDR analysts found that eight of the forms were totally unusable, because either the last section had not been completed at all, or had been completed incorrectly. Additionally, the EDR analysts found that another 15 forms had errors in transcription from the front sections to the summary section in the back of the booklet, or in addition. In some cases the errors made no notable difference in results, but in other cases, the impact on results was significant. The level of errors (almost a third of the forms had at least one or more errors), also suggested to the analysts that the results obtained by CESA may be flawed.

In total, (because of ties in certain scores) only 57 of the 73 surveys could be utilized for retabulation. Of that 57, there were 13 forms that had ties for first and second place (regarding what the inmate would like most to do), so an assumption was made that a "CS" code was equivalent to an "SC" code (this is justified by the analysts as a reasonable assumption because

the instruction manual instructs the reader to also consider jobs with the same letters but in opposite order).

After retabulating the results, the EDR analysts found that their distribution of results were different than the results obtained by the analysts for CESA. For example, CESA reported that 19 women received HSDS code CS/SC (26 percent), while EDR found that 21 received these codes (36.8 percent). Using the R codes as an equivalent for a desire for non-traditional jobs, CESA reported that 14 women received a code which included an R (19.1 percent), while the EDR analysis identified 13 out of 57 (22.8 percent) who met this criteria.

Based upon the results CESA tabulated from the surveys at the three institutions, the agency came to the conclusion that "[i]t is not recommended that CESA make drastic program changes to offer non-traditional courses to female inmates based upon the results of the HSDS Form E. The responses do not indicate a desire nor interest by those surveyed to a degree that would make program changes feasible." CESA did not present any further evidence, other than its own calculations of results, that female inmates were uninterested in non-traditional jobs. Conversely, EDR found that the tabulations themselves were only one part of determining the interest of those inmates assessed. According to the EDR analysts, sample interpretive reports provided by Holland suggest that two other factors should be considered; the difference between an individual's highest and lowest score, and consistency based on a hexagonal diagram approach. The sample interpretive report indicates that if the difference between the highest and lowest score is large, it is an indication of fairly well defined interests. Smaller differences between the two scores indicate that interests are not well defined. The HSDS interpretative report states that a score of 26 indicates that interests are moderately well defined, and a score of 12 indicates that

interests are not well defined. According to the EDR analysis, only 12.5 percent of the inmates surveyed at JCI had a difference larger than 27; this suggests that the job interests of women included in the sample are not well defined. EDR checked its results here by reviewing the individual forms, and found that (for example), five women scored the maximum number of yes responses (10) for each of the six different skill types showing no preferences at all.

In the second area of measurement required by the HSDS, which is termed "consistency", (also used to interpret raw data scores), a hexagonal approach is utilized with the six types of jobs listed. If the first two letters of the HSDS code are adjacent to one another on the hexagon, the individual has a highly consistent or compatible interest pattern. The interpretive report indicates that most jobs are consistent and that the ones that are not may give rise to job dissatisfaction. The EDR report shows that nearly 1 in 5 of the respondents had low consistency in their Holland codes and another 44 percent had average consistency.

Finally, EDR made several recommendations regarding assessment for female vocational interests within the major institutions. While not completely eschewing the use of the HSDS, the EDR analysts did recommend that if it were properly used, the HSDS should not be the only factor in making a determination of whether change in course offerings is necessary. Other factors to be considered included: the state economy and the types of jobs likely to be in future demand, educational requirements of those jobs, appropriateness of those jobs for convicted felons, pay levels associated with those jobs, the length of time necessary for appropriate training, and the educational level of female inmates.

Interestingly, early in the research process of this interim project, staff contacted Dr. Robert Reardon with the Division of Vocational, Adult and Community Education (DVACE),

who was the consultant CESA contacted in determining what assessment tool to use in its study. Dr. Reardon indicated that while the Holland SDS was a useful tool in determining individual interest inventories, he would not recommend utilizing the results of the HSDS as the sole indicator for programming vocational course offerings. Dr. Reardon did state that a combination of the HSDS results (assuming the results were valid) with results taken from a statistically valid vocational aptitude survey (such as APTICOM), would present a more accurate picture of what female inmates were interested in, and what they were capable of accomplishing. Dr. Reardon also made some of the same recommendations that the EDR analysts made with regard to the state job market, educational requirements and the length of training required for those jobs.

Comparison of Funding Between Male and Female Vocational Programs

According to figures from the Department of Corrections, there are currently 233 female inmates enrolled in vocational programs at the three major female institutions. This represents approximately eight (8%) percent of the total female population of 2701.[6] The total number of males enrolled in vocational programs operated by CESA is approximately 1326, which represents 2.6 percent of the total male population of 50,800. The total number of inmates enrolled in vocational programs operated by CESA is 1,559, which represents 2.9 percent of the total inmate population.[7]

[6]Population figures as of February 25, 1994. This represents female inmates contained in community corrections centers and on work release. The major institutional population for females is 2,176 as of February 25, 1994.

[7]There are another 2,576 vocational slots for both male and female inmates with PRIDE.

Figures obtained from CESA regarding monies spent on female vocational programs over the last five fiscal years indicate that the total amount spent for those programs from 1988 - 1993 was $1,379,953.[8] Figures for FY 1993-94 indicate that a total of $368,853[9] is being spent on female vocational programs. For male programs during FY 1993-94, over $2.1 million is being spent on salaries alone. Total allocations for male vocational programs are $3,265,779.

The Department of Corrections has indicated that CESA spends approximately $1,580.45 per female inmate per year for vocational programs, and $2,460.10 per male inmate per year for vocational programs. This represents a difference of $879.65 per inmate per year. It should be noted that female vocational programs require a great deal less capital outlay with regard to vocational equipment than do the male programs, since most male programs include equipment suitable for heavy industry (automotive, welding, wastewater treatment, printing, etc.), while vocational equipment for female programs generally includes computer equipment, cosmetology supplies and industrial sewing machines.

[8]November 15, 1993, memorandum to Bill Wooley, Vocational Administrator for CESA from Gary Zirin, Budget Analyst, CESA.

[9]Staff analysis of these figures indicate that the total amount is $282,433, since CESA has included a second vocational position at Jefferson Correctional Institution which is currently vacant.

Conclusions

Based upon the foregoing discussion, it is concluded:

1. Both state and federal law require CESA to provide gender equitable educational programs for female inmates, both academic and vocational, to adequately compare with educational programs provided for male inmates.

2. CESA's female inmate vocational preference inventories taken in March, 1993, appear to be statistically flawed and an invalid measure with which to base vocational education service delivery programming to female inmates.

3. Overall figures regarding spending for vocational programs between male and female inmates show that CESA has spent more money on male programs in the last fiscal year than it has spent on total programming for females over the last five fiscal years. Additionally, CESA spends approximately $880.00 more per year per inmate on vocational programming for male inmates than it spends for vocational programming for female inmates.

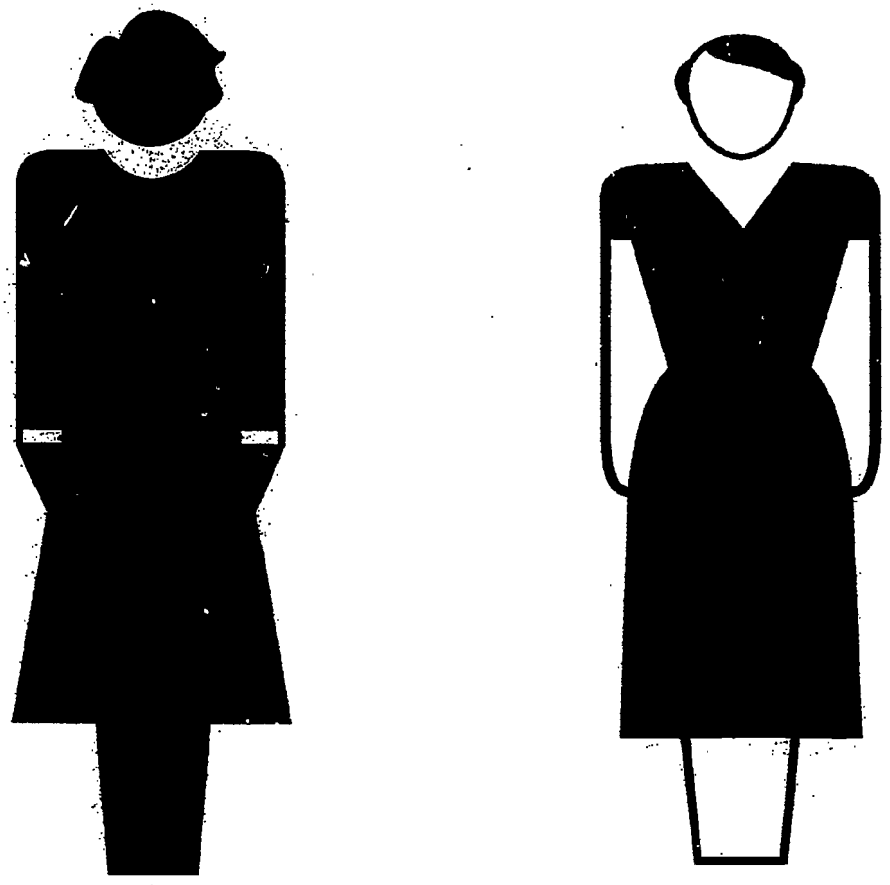
Recommendations

Based upon the preceding discussion and conclusions, it is recommended that the Legislature:

Appropriate adequate funding for FY 1994-95 to hire a consultant group to be chosen by an independent body such as EDR, to properly administer assessment and aptitude instruments which are nationally recognized and tested for validity to female inmates to determine both inmate interest and ability to participate in non-traditional vocational training programs. Other factors that should be taken into consideration are the Florida job market and the types of jobs that are likely to be in demand in the future; the educational requirements for those jobs; the appropriateness of those jobs for women who are convicted felons; pay levels associated with those jobs; the length of time needed to cmplete training for those jobs and the educational level of female inmates.

APPENDIX A

PRELIMINARY
VOCATIONAL PROGRAM SURVEY OF FEMALE INMATES



CONDUCTED BY:
CORRECTIONAL EDUCATION SCHOOL AUTHORITY
MARCH, 1993

CARL J. ZAHNER, Ph.D.
DIRECTOR

CORRECTIONAL EDUCATION SCHOOL AUTHORITY
Vocational Training Programs for Females

CONCLUSIONS:

Preliminary results of the recently administered Holland Self Directed Search (SDS) conducted at Florida Correctional Institution indicate that among female inmates incarcerated in the Florida correctional system there is little interest in vocational education programs that provide "non-traditional" job skills training.

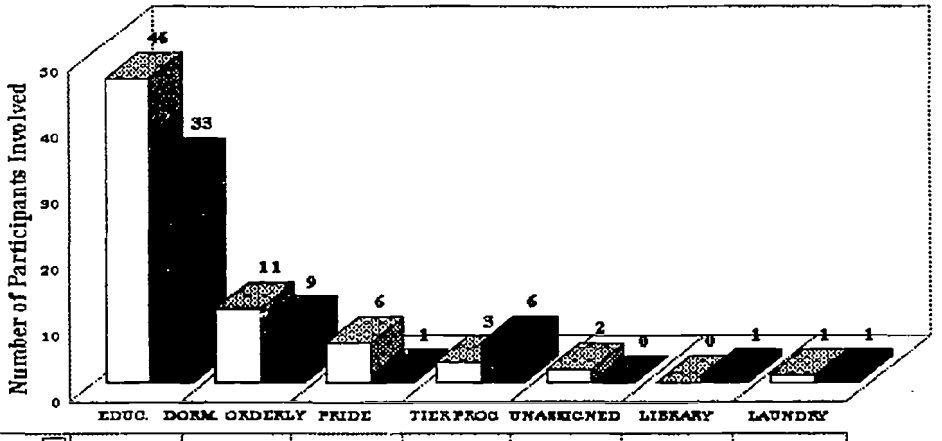
PROCEDURE:

On March 5, 1993, 125 randomly selected female inmates at Florida Correctional Institution participated in taking the Holland SDS Form E. The Form E Assessment Booklet includes uncomplicated questions about individual likes and dislikes and competencies and career interests. The clients derive a two letter Holland code using a simplified scoring system after they answer questions. They search the Job Finders with this code for jobs with matching or similar codes which are jobs that should be most rewarding to them. The Form E is also suited to adults with below-average reading skills.

The scores were tabulated for each area of acitivities, skills, jobs and abilities. The total number of "yes" responses to these questions were totaled with the top two scores yielding the Holland Code.

By taking the Holland Code and referencing the "Job Finders Booklet" one can find jobs that, according to earlier responses, are compatible with their individual personality and interests. We would look for the realistic (R) code to appear in the Holland Code if there seems to be a high interest level for most non-traditional vocational programs for our purposes.

HOLLAND SELF-DIRECTED SEARCH (E):
Inmate Participants By Race and Units



	EDUC.	DORM.	ORDERLY	PRIDE	TIER/FROG	UNASSIGNED	LIBRARY	LAUNDRY
BLACK	46	11	6	3	2	0	1	
WHITE	33	9	1	6	0	1	1	

UNITS FROM WHICH PARTICIPANTS WERE DRAWN

Of the 125 surveys, five were not completed and therefore not included in the results.

VALIDITY OF THE HOLLAND SELF-DIRECTED STUDY:

The Division of Vocational, Adult and Community Education (DVACE) Sex Equity staff recommended the utilization of the Holland SDS at the onset of this project. The Career Center at Florida State University and discussions with Robert Reardon, Ph.D., provided assistance regarding the SDS instrument and the information needed. Although Dr. Reardon believed CESA could make determinations regarding future vocational offerings from the results of a large sampling of female inmate responses, the SDS is generally used by career guidance counselors for individual career determinations and the Holland SDS is designed to be administered, reported, scored and interpreted by the individual. Extensive research confirms the effectiveness of this instrument.

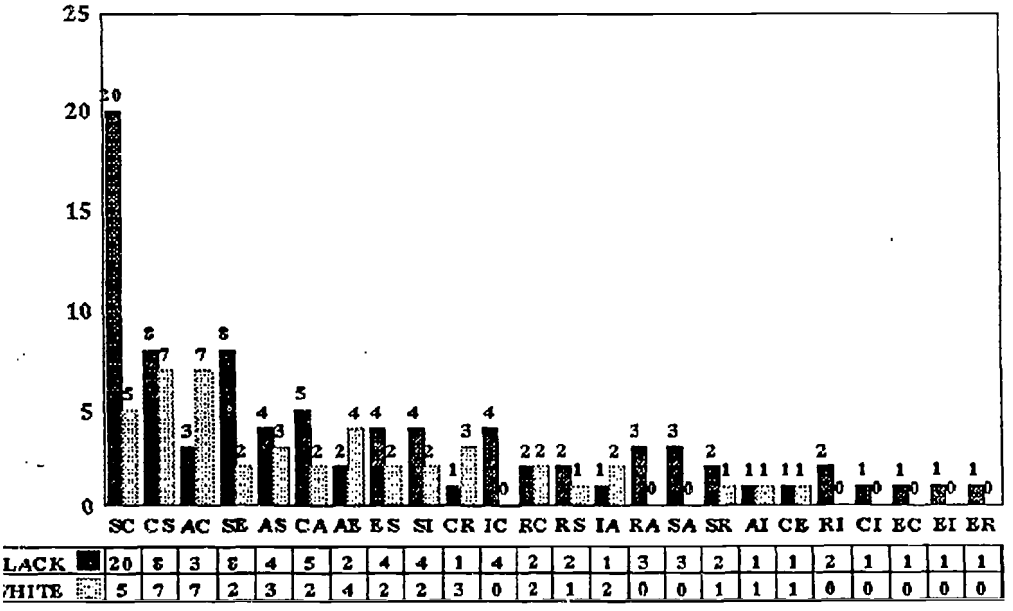
A person's Holland SDS profile implies a wide range of information regarding personality traits, preferences (both occupational and avocational), life goals and values, life history and future career. Early research (1962, '63, '68) established that the desired role in an occupation is associated with vocational interests and personality.

In response to criticisms that the SDS is gender biased, Dr. Reardon explained that this would depend on whether the user agrees that there are variable gender differences in the overall workforce. It is, however, agreed interests in the world of work are gender related. The United States Department of Defense is currently integrating this instrument with the ASVAB test for use by the military in determining job training.

RESULTS:

Results of the SDS showed 36 interest responses directly or related to CESA vocational programs being offered to female inmates included in the findings of the top 15 Holland Codes. Among these occupations for which training is being provided are Computer Operations, Clerk Typist, and Cosmetology. Related occupations to existing programs were File Clerk, Secretary, Bookkeeper, and Typist. Of these top 15 Holland Codes only seven interest responses to occupations that fall into the non-traditional category were found. Some of these occupations were Electrician Helper, Brick Mason, Pipe Fitter and Truck Driver.

RESPONSES TO CODES FOR REFERENCED JOBS



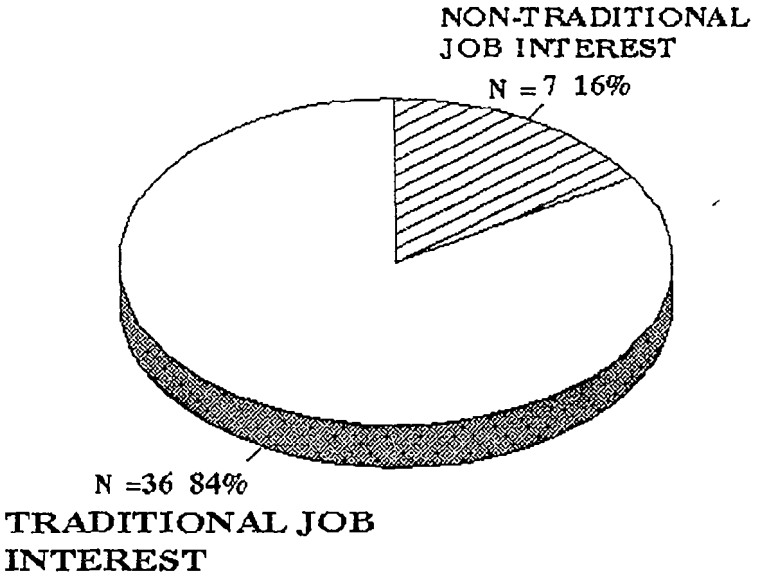
CONCLUSIONS:

CESA has been providing, and should continue to offer, vocational education programming in those areas that not only are traditional by nature but have a high degree of interest by the students who participate in them.

It is not recommended that CESA make drastic program changes to offer non-traditional courses to female inmates based upon the results of the Holland SDS Form E. The responses do not indicate a desire nor interest by those surveyed to a degree that would make such program changes feasible.

Findings of the interest survey also indicate that CESA currently offers some traditional programs for which there is no discernable interest. These programs are Sewing Machine Operator and Dress Maker.

RESPONSES TO TOP 15 HOLLAND CODES AS RELATED TO JOB INTEREST:



CURRENT TRADITIONAL PROGRAMS OFFERED TO WOMEN BY CESA
Computer Operations
Clerk Typist
Hair Stylist
File Clerk
Bookkeeper
Typist

TRADITIONAL OCCUPATIONS IN TOP 15 RESPONSES FROM SURVEY PARTICIPANTS
Computer Operator
Hair Stylist
Receptionist
File Clerk
Bookkeeper

SUMMARY OF FINDINGS

The following is a summary of the findings. Note that some of the jobs for each code, as found in the Job Finders, are comparable to programs now being offered by CESA.

# INMATES	CODE	REFERENCED JOBS
(25)	SC	medical assistant, social services aide, fast food worker, storage rental clerk
(15)	CS	computer operator, secretary, file clerk, typist, receptionist
(10)	AC	photographer, cake decorator, painting instructor
(10)	SE	hair stylist, waitress, nurse's aide, flight attendant, barber
(7)	AS	dental assistant, dental hygienist, pastry chef
(7)	CA	medical secretary, receptionist, computer operator
(6)	AE	photographer
(6)	ES	flight attendant, barber, waitress
(6)	SI	cardiac monitor, furniture refinisher, hair stylist, fast food worker
(5)	IS	cardiac monitor, printed circuit design
(4)	CR	bookkeeper, office clerk, accounting clerk, electronic assembler
(4)	IC	cardiac monitor, printer circuit design
(4)	RC	drafter, upholster, pipefitter, water treatment, auto body repair, sewing machine operator
(3)	RS	electrician helper, brick mason, upholsterer, dress maker, truck driver
(3)	IA	dental assistant, printed circuit design
(3)	RA	pastry chef, floral designer, cake decorator
(3)	SA	licensed practical nurse, dental hygienist, dental assistant
(3)	SR	furniture refinisher, truck driver
(2)	AI	dental assistant, printed circuit design
(2)	CE	medical secretary
(2)	RI	cabinet maker, welder, auto body repair
(1)	CI	bookkeeper, computer operator, medical secretary
(1)	EC	medical secretary, office helper
(1)	EI	contractor, sign painter, office helper
(1)	ER	sign painter, air conditioning mechanic, gas engine mechanic, custodian

APPENDIX B

PAT THOMAS
President

BO JOHNSON
Speaker

THE FLORIDA LEGISLATURE

JOINT LEGISLATIVE MANAGEMENT COMMITTEE

FRED BREEZE, EXECUTIVE DIRECTOR

DIVISION OF ECONOMIC AND DEMOGRAPHIC RESEARCH

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EDWARD MONTANARO, DIRECTOR
Room 576, Claude Pepper Building
111 W. Madison Street
Tallahassee, Florida 32399-1400
Telephone (904) 487-1402

MEMORANDUM

For: Laura Taylor
House Corrections Committee

From: Kathy Ockay KO
Economic and Demographic Research

Subject: Review of CESA Survey of Female Inmates

Date: January 25, 1994

As you requested, I have reviewed the materials related to the Correctional Education School Authority's survey of female offenders concerning vocational programs. These materials include a preliminary report on results from Florida Correctional Institution, one with results from Broward and Jefferson Correctional Institutions, the Holland Self-Directed Search (Form E) Assessment Booklet and Jobs Finder, two sample interpretive reports, and assessment booklets from Jefferson Correctional Institution and Broward Correctional Institution.

The one CESA report states the purpose for the research: "Assuming a premise that incarcerated females would be interested in "non-traditional" job training and that such programs should be offered in the curriculum at female institutions, a Holland Self-Directed Study was recently administered at Florida Correctional Institution (FCI) for verification of this assumption." However, while Holland describes jobs as realistic, investigative, artistic, social, enterprising, and conventional, none of the documentation accompanying the Holland Self-Directed Study (SDS) differentiates between traditional and non-traditional jobs. CESA assumes that interest in "realistic" jobs represents a high interest level in non-traditional jobs but no justification is given for this assumption. This seriously compromises the conclusions drawn from the research.

According to CESA reports concerning the research, 125 female inmates at Florida Correctional Institution, 73 at Jefferson Correctional Institution, and 88 at Broward Correctional Institution were randomly selected to receive the Holland SDS. No additional information on the sampling procedures are included in the writeup so it is unclear whether the procedures resulted in biased samples in the three institutions. Information on the race of participants at FCI indicates that the racial composition of the sample is

quite close to that of the institution (the sample was 42.5 percent white compared with 41.7 percent white in the total institution) but this information is not available for Jefferson and Broward. However, data are available on age of respondents in the Jefferson and Broward samples and these data suggest that these samples may be biased toward younger women. While just 13.5 percent of Broward's population is less than 26, 20.7 percent of the sample fell into this age range. Similarly, 19.6 percent of Jefferson's population is less than 26 compared to 30.1 percent of the Jefferson sample. This bias could skew results since it is likely that younger women have different abilities, interests, and skills than older ones.

One of the CESA reports describes how the Holland SDS is used: "The Form E Assessment Booklet includes uncomplicated questions about individual likes and dislikes, competencies and career interests. The clients derive a two letter Holland Code using a simplified scoring system after they answer the questions." The assessment instrument consists of 4 sections -- Activities, Skills, Jobs, and Rating Your Abilities. There are 6 sets of items in each of the first 3 sections which relate to the 6 types of jobs which Holland has identified (i.e. realistic, investigative, artistic, social, enterprising, and conventional). For example, in the Activities section, the individual is asked to circle Y if the listed activity is one that the individual likes to do or thinks that she would like to do. The six types of items describe R activities (e.g. fix electrical things, chop firewood), I activities (e.g. work in a laboratory, take a physics class), A activities (e.g. design furniture, read or write poetry), S activities (e.g. go to parties, work for a charity), E activities (e.g. influence others, meet important people), and C activities (e.g. type papers or letters, operate a computer). Ten activities are listed under each type of activity (R,I,A,S,E, and C) and the individual scores 1 point for each yes response.

The Skills and Jobs sections are similar in format to the Activities section but the Rating Your Abilities section is different. In this section, 6 descriptions of abilities corresponding to the 6 types of jobs are listed (e.g. for R, Mechanical--fixing things, using tools and machines) and the individual is asked to decide which ability is their best. This ability is given a score of 6, the next best ability is given a score of 5, etc.

The six individual scores from each section are then transcribed to a section entitled "Counting Your Answers" and summed to produce total scores for each of the six types of jobs. The letter representing the type with the highest score becomes the first letter of the Holland code and the letter representing the type with the second highest score becomes the second letter of the Holland code.

In order to evaluate the accuracy of the data and the results, the raw data from the Holland Self-Directed Search Assessment Booklets administered at Jefferson Correctional Institution were reviewed and retabulated. It was found that 8 of the forms were totally unusable either because the last section--Rating Your Abilities--had not been completed at all or had been completed incorrectly. In addition, another 15 forms had errors in transcription from the front sections to the summary section in the back of the booklet or in addition (either in the front sections or the summary section). In some cases these errors did not affect the final two-digit code but in other cases it did alter the outcome. The level of errors (nearly a third of the forms had one or more errors) also suggest that the

results obtained by CESA may be flawed.

In addition to the 8 forms that could not be scored at all, 3 forms had ties on more than 2 job types so that the two highest scores could not be ascertained, and 5 had ties in second place making it impossible to determine the top two scores. This left 57 usable cases. Thirteen of these forms had ties for first and second place so it was assumed that a CS code (for example) is equivalent to an SC code. (This is a reasonable assumption since the Job Finder booklet instructs the reader to also consider jobs with the same letters but in opposite order.)

As shown on Table 1 (attached), correcting transcription and addition errors and dropping cases in which it is impossible to determine the two highest scores results in a somewhat different distribution of scores for Jefferson CI. While CESA reported that 19 women received Holland code CS/SC (26.0 percent), EDR found that 21 received these codes (36.8 percent). CESA, using R codes as a proxy for a desire for non-traditional jobs, reported that 14 women received a code which included an R (19.1 percent) while the EDR analysis identified 13 out of 57 (22.8 percent) who met this criteria.

CESA did not present any further analysis of the results and concluded that there is little interest in vocational education programs that provide "non-traditional" job skills training but sample interpretive reports suggest that two other factors should be considered. The first of these is the difference between an individual's highest and lowest scores. As noted in the sample interpretive report, "If this difference is large, it indicates that your interests are pretty well defined and your summary code accurately reflects your interests. If the difference is small, it indicates that your interests are not well defined or focused at this time." The interpretive reports suggest that a difference of 12 indicates that interests are not well defined and that a score of 26 represents interests that are moderately well defined. The Jefferson CI sample had an average difference of 18. Over a fifth of the sample had a difference score less than 12 and only 12.5 percent had a difference larger than 27. This suggests that the job interests of women included in the sample are not well defined at this time. This is born out by reviewing the individual forms also. For example, five women scored the maximum number of yes responses (10) for each of the six different skill types showing no preferences at all in this area.

The second area discussed in the interpretive reports is consistency. Holland presents a hexagon with the six types of jobs and states, "If the first two letters of your SDS summary code are next to (adjacent) one another on the hexagon, you have a highly consistent or compatible interest pattern." The interpretive report indicates that most jobs are consistent and that the ones that are not may give rise to job dissatisfaction. As shown in Table 3, nearly 1 in 5 of the respondents had low consistency in their Holland codes and another 44 percent had average consistency.

Perhaps the most telling statement in the sample interpretive report states, "The types that an individual resembles most are usually the result of an individual's personal experiences and background, including school involvement, work history, social class, hobbies, and the influence of parents, friends, and relatives."

All of this suggests that administration of the Holland SDS and subsequent interpretation of the results could, perhaps, be part of CESA's process to

determine the types of vocational programs that should be offered in female institutions but the use of the Holland SDS or some other jobs preference tool **should not** be the only factor in making a determination of whether change in the offerings is needed. Factors that should be considered include the following:

1) Florida's economy and the types of jobs that are likely to be in demand in the future.

2) The educational requirements of these jobs.

3) The appropriateness of these jobs for women who are convicted felons (i.e. are there jobs where a criminal record would preclude employment?)

4) Pay levels associated with these jobs.

5) The length of time needed to complete training for these jobs.

6) The educational level of female inmates.

Finally, the interests of female inmates should be considered so that good matches can be made between individuals and jobs.

Please let me know if I can be of further assistance.

Attachments

cc: Ed Montanaro

TABLE 1
HOLLAND CODES FOR JEFFERSON CI SAMPLE

Holland Code	CESA ANALYSIS		EDR ANALYSIS	
	Number	Percent	Number	Percent
CS/SC	19	26.0%	21	36.8%
RS/SR	10	13.7%	5	8.8%
AS/SA	9	12.3%	6	10.5%
ES/SE	7	9.6%	5	8.8%
CE/EC	6	8.2%	3	5.3%
SI	4	5.5%	1	1.8%
AR/RA	4	5.5%	2	3.5%
IE	3	4.1%	3	5.3%
IA/AI	2	2.7%	2	3.5%
CR/RC	0	0.0%	4	7.0%
AC/CA	0	0.0%	2	3.5%
RI/IR	0	0.0%	2	3.5%
CI/IC	0	0.0%	1	1.8%
Others	9	12.3%	0	0.0%
TOTAL	73	100.0%	57	100.0%

TABLE 2
DIFFERENCE BETWEEN HIGH AND LOW SCORES
JEFFERSON CI SAMPLE

Difference	Number	Percent
12 or less	14	21.5%
13-15	9	13.8%
16-18	13	20.0%
19-21	11	16.9%
22-24	3	4.6%
25-27	7	10.8%
28-30	4	6.2%
Greater than 30	4	6.2%
TOTAL	65	100.0%

TABLE 3
CONSISTENCY IN HOLLAND CODES
JEFFERSON CI SAMPLE

	Number	Percent
Low	10	17.5%
Average	25	43.9%
High	22	38.6%
TOTAL	57	100.0%