This paper describes a comparative study to measure differences in the levels of career indecision for high school seniors (N=113) who are African American, Asian, Hispanic, Native American, White, or mixed race, and are involved in activities in a School-to-Work (STW) program of an urban high school. A demographic survey and the Career Decision Scale (CDS) were administered to the sample to measure the effectiveness of program participation on career decisiveness levels. Analysis determined no differences in career decisiveness based on racial identity between African American and White students, and showed a positive relationship between students who were active in STW programs and their level of career decision-making confidence. A discussion is included on the implications of using the CDS in developing STW programs. (Contains 2 tables and 29 references.) (JDM)
A Quantitative Assessment of Culture and Career Decision-Making Confidence
Levels of High School Seniors in a School-to-Work Program using the Career Decision Scale

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ABSTRACT

High school seniors (n=113) were administered the Career Decision Scale (CDS) which measured the effectiveness of School-to-Work (STW) program participation on career decisiveness levels. Quantitative analysis determined no differences in career decisiveness based on racial identity between African American and White students and showed a positive relationship between students who were active in STW programs their level of career decision-making confidence. Implications for the use of the CDS in developing STW programs are discussed.
A Quantitative Assessment of Culture and Career Decision-Making Confidence
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Literature Review

Career decision-making skills need to be addressed and assessed when working
with adolescents. Often they may have the career information and extensive career
counseling, but if their decision skills are weak, they may not be able to make the correct
choice for themselves or learn how to make career decisions later in life. Minority
students are at greater risk for not learning vocational decision-making skills based on the
research focused on school drop-out rates, graduation rates and employment challenges.

Hawks and Muha (1991) predicted that from 1986 to 2000, those who defined self
as African American would increase 29% in the labor force, those who defined self as
Hispanic or Latino would increase 74%, while those who considered themselves as White
were projected to increase less than 15% in the labor force. These authors also discussed
over-representation of minorities among the impoverished and high school dropouts, and
under-representation in higher education. Chung, Loeb and Gonzo (1996) found that
Black Americans are “…more likely than White Americans to be unemployed,
deremployed, and limited to occupations at lower socioeconomic levels” (p. 127).

High schools have been criticized for not doing enough for minorities in the way
of career development. Minority youth have fewer jobs during and after high school in
comparison to their White male counterparts. Bishop (1996) states that these youth may
“do poorly in the labor market…most of the criteria now used to make selections are
previous work experience, recommendations from previous employers, having family
friends or relatives at the firm, performance in interviews, and prejudices and stereotypes—work against them” (p. 155-116).

Gysbers (1996) states that “Most children and adolescents are disadvantaged when it comes to opportunities for developing their career (self) identities” (p. 95). Because many children and adolescents have limited access to role models of many different careers, and further, some of those models may be ineffective role models, counselors are challenged to do as much as possible toward educating students about career options and exposing them to a wide variety of jobs. Minority youth have less access to successful role models in our society than White youth.

Herr and Niles (1997) studied “work-bound youth” which they defined as adolescents whose plans were to enter the workforce upon leaving high school. These authors also state that although the main goal of this sub-population is to work immediately after high school, it is “likely that many of these persons will, at some time, enter some form of post secondary education, including college” (p. 138). These authors also describe work-bound youth as a diverse sub-population “…in social and economic levels, gender, geography, racial and ethnic backgrounds, intellectual abilities, and physical status” (Herr & Niles, 1997, p. 138). They go on to say that this population is ill defined, and usually seen by society as inferior when compared to their college or tech school peers. Helping this population become clear about their personal and work values is recommended by Herr and Niles (1997), because this information can help guide these students toward their appropriate career choice.

Work-bound youth can also be seen as “at-risk” students who do not see alternatives to working low paying jobs upon leaving high school. Ladany, Melinoff,
Constantine and Love (1997) defined "at-risk" students as those who were from lower socio-economic backgrounds and who attended schools with limited resources. These students were also less able to commit to the career exploration process; it seemed, because of a high perception of barriers to career goals, and a need for more occupational information. Barriers to career goals are seen as limited access to college application resources, career counseling and funding for college (King, 1996). Middle and high-income students report ambitious attitudes and positive academic experiences, while low-income students do not.

High school graduation rates and unemployment rates continue to show important differences between racial groups. Minority students (16 percent of Black and 9 percent of Hispanic students) graduated in 1996 compared to 78 percent of White students (U.S. Department of Education, 1996). White persons with less than a high school degree (between the ages of 16-24) were unemployed at the rate of 16.7 percent, as compared to Black persons with less than a high school degree at the rate of 37.8 percent, as compared to Hispanic persons with less than a high school degree at the rate of 20.1 percent. Of those who had high school education with no college, Whites were unemployed at the rate of 9.9 percent, compared to Blacks at the rate of 23.0 percent, compared to Hispanics at the rate of 13.6 percent (U.S. Department of Education, 1996).

White students are the only group to consistently decrease their dropout rate from high school since 1979 (U.S. Department of Education, 1996). National reports of dropouts for White students decreased from 1979 to 1996 (from 580,000 to 365,000) while Black student rates were less in this time frame (from 146,000 to 111,000) after a
drop to 80,000 in 1993. Hispanic student’s dropout rate rose in this time period from 91,000 to 105,000.

Although unemployment, graduation and dropout rates continue to look bleak for minority students, there is some evidence of a rise in numbers of minorities who are college bound. College enrollment rates in 1996 showed White representation by 65.8 percent with Black representation by 55.3 percent (U.S. Department of Education, 1996). The rise from 1976 to 1996 was 41.9 percent to 55.3 percent.

A major factor in high school student retention, graduation, post-secondary experiences, and employment is effective career planning with a major component being effective career planning. Adolescent career decision-making skills have been a focus of much of the career counseling literature in the past three decades.

A key to effective career planning programs is to offer career preparation to all students. Gottfredson (1996) describes the process of career development for adolescents in high school as a time when students should focus on “...continuing to discover and develop one’s interests and abilities, assessing their compatibility with different occupations, and thinking about priorities in making compromises” (p. 221). Gati, Krausz and Osipow’s (1996) taxonomy of career decision-making difficulties describes important factors: motivation, knowledge, information about the self, and internal conflicts. These categories of difficulties are specific to adolescent career development and these authors believe that adolescents experience a lack in these factors and many internal conflicts that can produce crises in their lives, thus making career decision-making extremely difficult.
School-to-Work Program

The School-to-Work (STW) movement began when the School-to-Work Opportunities Act was passed by Congress in 1994. Three strategies are currently being instituted by the National STW office to execute the national evaluation of STW programs. They include a survey of local STW Partnerships (from 1996-2000, a mail survey at the state level will collect data on the quality of partnerships, school and work activities, links to post-secondary options, student assessment and amount of student participation); case studies of selected sites in 42 partnerships in eight states; and a student study of 12th graders in 32 partnerships across the eight states previously mentioned conducted in the Spring of 1996, 1998 and 2000 (Hershey, 1999).

School-to-Work Research

Researchers who have studied the general effects of School-to-Work (STW) programs have found promising results. Haimson, Hershey and Silverberg (1998) studied students from suburban as well as urban and rural school districts and found that students who had been in a STW program at their school (regardless of urban/rural status) were committed to their education and that attendance was higher than their classmates.

The Philadelphia School District Study of 1997 indicated that STW participants had higher attendance rates, graduation rates and grade point averages than the Philadelphia School District averages (National School-to-Work Learning and Information Center, 1999). Specifically, Philadelphia STW students were 12% more likely to graduate from high school than non-STW students.

Cox, Gysbers, Lapan, Schlichting, and Desborough (1998) carried out a study with a junior and senior high school sample consisting of 927 students with
representation from White, Hispanic, Black, American Indian or Alaskan Native and Asian populations. A major finding was that these students who were involved in STW programs were able to connect their academic preparation to the world of work regardless of race.

Several researchers and authors have requested further assessment of the usefulness of the CDS as a tool to measure effectiveness of vocational programs (e.g., Bowman, 1993; Carr, Wright, & Brody, 1996; Osipow, 1987; Reis, & Callahan, 1996; and Savickas, & Jarjoura, 1991) and its ability to assess career decisiveness levels of different cultural populations (e.g., Bowman, 1993; Osipow, 1987; Vondracek, 1991; Watson, Foxcroft & Stead, 1991).

The high school under study was selected for its STW vocational programs, which include “Work-Based Learning Programs” involving cooperative education, internship, mentoring, and shadowing experiences. The full-time (12-month) coordinator of this program in an urban high school of about 1200 students also helps locate work (part-time, full-time and volunteer) for students. The student population includes African American, Asian, Hispanic, Native American, mixed race and White students.

Sample

This comparative study measured differences in levels of career indecision for high school seniors who were African American, Asian, Hispanic, Native American, mixed race and White who have varying levels of experience in vocational programs or job related activities through the STW program at an urban high school. (See sample breakdown of gender and race in table #1.)
The specific percentages are 44 percent males, 56 percent females, 24 percent African American, 4.4 percent Asian, 1.8 percent Hispanic, 56.6 percent White, and 9.7 percent mixed race students. With such small samples of Asian, Hispanic and mixed race students, discussion of statistical findings focus on analysis of African American and White students. The sample ranged in ages from 17 to 18 years, and were from a middle-upper income school district (Woods, 1999).

Instrumentation

Both a demographic survey and the Career Decision Scale (CDS) Osipow, Carney, Winer, Yanico & Koschier (1976) were administered to the sample. The demographic survey variables were race, technical or college path, career center attendance, guidance counselor visits, amount of involvement in STW programs, work experience, reason for work experience, and parental level of education.

The CDS can estimate career indecision and assess the effects of career development interventions of high school students (Levinson, Ohler, Caswell & Kiewra, 1998). It measures levels of career indecision based on 18 test items and has been studied extensively in comparison to other career assessment tools. It is applicable to different age groups and has specific forms for various developmental stages. Vondracek (1991) describes the CDS as an inventory that not only measures indecision but also helps determine whether the indecision is based on internal or external forces as well as the degree of indecision. The inventory has ability to help counselors understand the structure of indecision as well as to help career guidance administrators measure the effectiveness of a career-planning program (Harman, 1985).
Reliability data of two-week and six-week test-retest studies show .90 and .82 respectively (Harmon, 1985). Another test-retest study reported high values of .90 for the two-week interval and .82 for 59 individuals enrolled in a college course (Slaney, 1985).

Validity has been shown through a number of studies which report increased decidedness after career planning sessions (Harmon, 1985). In a study comparing treatment and control group test scores, (one of the most significant studies using an untreated control group), it was shown that “Pre- and posttest measures over eight months showed the career planning group to be initially less decided...and to have become significantly more decided. After the intervention they were no different from the initially more decided control group” (Harmon, 1985, p. 270).

Concurrent validity, construct validity, and predictive validity have been shown (Watson, Foxcroft & Stead, 1991; Osipow, 1987). Harman (1985) reports validity and reliability with test-retest reports offering excellent effect size significance.

In a group comparison to test validity Osipow and Schweikert (1981) explored differences in scores between the CDS and the Assessment of Career Decision Making (ACDM). In a sample of college freshmen in a career planning center program, tests were given during a two-day period before the semester began. A significant correlation ($r = -.265, p < .004$) was found between Indecision scores on the Career Decision Scale and the ACDM (Osipow & Schweikert, 1981).

There have been few studies that have focused on comparing career decision-making skills between cultures. Westbrook, Cutts, Madison and Arcia (1980) reported finding higher levels of indecision in Blacks than in Whites. Most studies utilizing the CDS have used predominantly White samples (e.g. Savickas & Jarjoura, 1991) or
westernized, White South African adolescents (e.g. Stead & Watson, 1993; and Watson, Foxcroft, & Stead, 1991), or samples which do not describe an ethnic breakdown (Perkins, 1994). Slaney (1985) suggests that since the CDS has been so well received that more research with focus on ethnic differences needs to be pursued.

Results

Data analysis included descriptive and inferential statistics with an alpha level of .05. An Analysis of Variance (ANOVA) showed no significant difference on CDS scores between cultural groups (p=.107, see ANOVA, Table #2).

Level of indecision was defined as the raw score achieved on the Indecision Scale portion of the CDS (Osipow, et.al, 1976). The higher the score, the greater the level of indecision. The raw scores of each group were as follows: African American, 26.75; Asian, 34.60; Hispanic, 26.00; White, 30.55; and mixed race, 34.55. These students’ scores were at the lower end of what Osipow (1987) categorizes as “needs further assessment” (p3). They do not indicate high indecision.

A chi-square analysis was used to examine differences in African-American and White students regarding demographic variables and STW program experiences. The following significant differences between the two cultures were found:

1. post high school tech/college path: 22 percent of African Americans were undecided versus 3 percent of Whites

2. internship amount: African Americans had more internship experience than Whites

3. “gain work experience” as reason for working: 94 percent of Whites versus 75 percent of African Americans
4. educational level of father: 58 percent of White fathers completed college versus 15 percent of African American fathers

5. work status of father: 90 percent of White fathers employed full-time versus 68 percent of African American fathers

Discussion

The students in this study had similar scores overall on the CDS. Further, their scores indicated that they needed further vocational assessment, although they were not in the high indecision range of CDS scores. This finding may indicate that most of the students in the population at the school under study had equal access to resources that assisted career decisions. The chi-square analysis of demographic variables showed that African-Americans had more internship experience and were more undecided regarding technical/college path than whites.

One of the primary resources was the school’s STW program, which appeared to be helpful in lessening career indecision for many students, as indicated by the ANOVA findings. Of particular help was the internship experience, shadowing experience (particularly for females), and internship experience (particularly for Asians).

Perhaps a most interesting finding in this study is although there were significant differences found between African-American and White students on the demographic survey that there were no differences between career indecision or their involvement in STW programs (specifically use of career information center, cooperative education, mentoring, shadowing, voluntary or paid work experience).

Limitations to this study should be considered. The convenience sample drew small numbers of Asian, Hispanic, and mixed race students. Significant findings are not
generalizable to the high school senior population. Data from this sample and analysis of this information are useful for contribution to the literature of multiculturalism and career counseling but must be considered cautiously.

Recommendations for further research studies on the CDS on specific samples of racial groups are warranted, since limited information currently exists. Although normative tables were available by grade in school and by gender, there are no normatives on race. In addition to implementing research recommendations on different ethnographic groups, there also needs to be research focused on career decisiveness levels of different types of adolescents: work-bound, urban, rural, gifted, and adolescents from lower, middle, and upper socio-economic strata. Much research has focused on college bound, but current research has just begun to focus on all adolescents, and much more needs to be done to understand career decision-making processes of adolescents representing various backgrounds.

STW programs are showing great promise in aiding adolescents with the career planning process. Since these programs are comprehensive, designed to help students make plans to enter the workforce, a tech school or a college of choice, they are global in nature. This emphasis enhances all choices for adolescents who have, in the past, considered work after graduation or the tech prep pathway to be less desirable than a college liberal arts education.
## Tables

### #1

**GENDER * RACE Crosstabulation**

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**ANOVA**

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<td>Within Groups</td>
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<td>Total</td>
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