

Tenth Grade Students' Perceptions of Career Preparation and Work Experience in Arizona Schools: Two-Year Trends

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For the past three years, Arizona has been engaged in building a system of School To Work (STW) opportunities for students. In accordance with the *STW Opportunities Act of 1994*, the state system supports creating and expanding options for students to explore careers through a pedagogical approach that combines school-based learning, work-based learning, and activities that connect the two. Arizona's STW system is supported by a grant from the U.S. Departments of Labor and Education and is administered by the School To Work Division of the Office of Workforce Development Policy under the auspices of the Arizona Department of Commerce.

An annual survey of tenth grade students is one component of a statewide evaluation of Arizona's STW system designed and implemented by the Morrison Institute for Public Policy. Tenth graders' attitudes toward and participation in career activities are target measures because of their relationship to a requirement of the *STW Opportunities Act of 1994* [Section 102]. In Arizona, this survey is one of two student surveys used as measures of systemic change. It is posited that as the STW system is built, student awareness of and exposure to career options will grow and participation in career-related activities will increase statewide.

This briefing paper presents the results of the second administration of the tenth grade survey. Results are compared to baseline information collected in 1997.

Survey Design and Methodology: An Overview

Collaboratively designed by a cadre of evaluators representing each of the state-funded regional partnerships, the survey is intended to:

- 1) determine the extent to which Arizona tenth grade students have selected a career "major" or, in Arizona, a *Career Pathway* (as defined by the Arizona Department of Education, or ADE),
- 2) examine student participation in career preparation/work experiences appropriate for their grade level,

- 3) assess the impact of career-related activities as helpful to students in selecting a career interest,
- 4) explore the extent to which students have received career guidance from adults, and
- 5) examine whether students take high school courses related to their career interests.

Student attitudes toward careers and gender also are explored on the survey, and results from data analyses based on gender are presented throughout the paper.

Each state-funded STW partnership is responsible for collecting survey data on a sample of schools and students within their partnership. Partnerships typically survey one or more classrooms of tenth grade students from randomly selected schools. All students are drawn from English or other general studies classes rather than classes with a vocational or STW emphasis in order to avoid biasing results.

The survey was first administered in spring 1997 to more than 2,000 tenth grade students throughout the state. The survey was administered again in spring 1998 to 1,057 students. The demographic characteristics of the sample populations for both years parallel those of tenth grade students statewide.

The 1998 sample represents 4.2% of the tenth grade population served by the state-funded STW partnerships. Results are reliable at a 95% level of confidence with margins of error not exceeding ± 2.2 percentage points. Survey results were weighted to reflect the proportion of students enrolled within each partnership by gender.

Summary of Results

Career Selection

In spring 1998, nearly all students (93.6%) surveyed indicated that they had at least an idea of their career area of interest. Of those, 41% said that they "know for sure." *These figures remain constant from 1997.* Three-fourths of the students further defined their career interests in terms of



one of ADE's six *Career Pathways*. Table 1 illustrates students' choice of a career interest presented by gender.

Table 1

Career Pathway (i.e., Area of Interest) Choices by Gender

Male	Career Choices by Pathway	Female
17.2%	Arts, Communications, and Humanities	19.0%
9.9%	Business Systems	11.1%
35.8%	Engineering/Industrial Systems	3.5%
9.9%	Social/Human Services	20.1%
7.8%	Health Services	29.3%
3.8%	Natural Resources	5.7%
15.6%	"Other"	11.3%

Morrison Institute for Public Policy, Spring 1998 data

In both 1997 and 1998, gender differences are observed in students' selections of career interests. Girls express interest in Health Services careers three times more often than boys, and in Social or Human Service twice as often. Alternatively, boys choose Engineering and Industrial Systems careers ten times more often than girls. It is noteworthy that when asked if all jobs are equally suited for men and women, girls in both 1997 and 1998 agree with this statement more often than boys.

Participation in Career-Related Activities

In both 1997 and 1998, students were asked about their participation in 14 career preparation and work experience activities. Table 2 on the following page summarizes participation results for both years. Data suggest that, overall, student participation in activities has increased. Specifically, statistically significant increases in student participation between 1997 and 1998 are noted in nine of the 14 activities. Participation increased the most in unpaid internships, volunteer work in the community, and with business mentors.

Notably, more than half of the students surveyed in 1998 participated in eight of the activities compared to seven in 1997. School activities rank most highly. Nearly 80% of students in 1998 report having a guest speaker or classroom experience where they learned about jobs. Portfolios and business mentors are reported least often.

In analyzing student participation in the 14 activities by gender, statistically significant differences in participation

are evident. More girls than boys report learning about careers in class and participating in volunteer activities. Conversely, more boys than girls participate in internships with pay, work for pay in a job unrelated to their careers, and have business mentors.

Impact of Participation on Career Selection

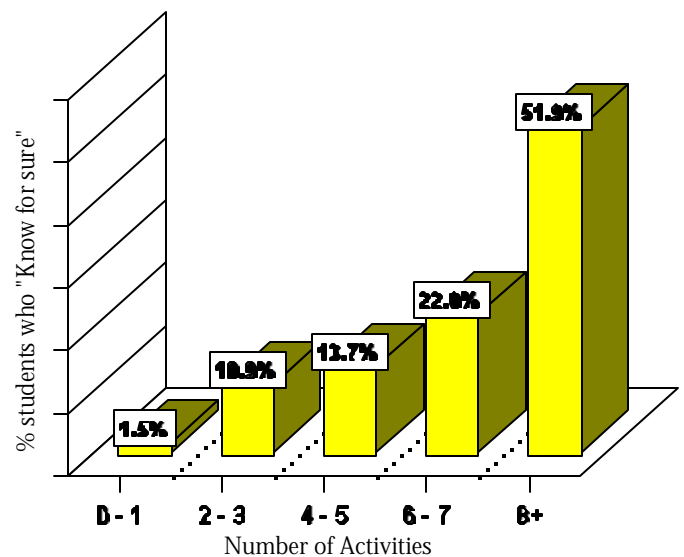
What impact have these activities had on helping students make career choices? The share of students who have selected a career interest increases as participation rises. Over half of the students who participate in eight or more activities have made a career choice, compared to roughly 2% of students who have made a choice and participate in less than two activities. The relationship between career selection and participation in career-related activities is depicted in Figure 1.

Figure 1

Student Ability to Define Career Interests by Level of Participation

Morrison Institute for Public Policy, Spring 1998 data

According to student input, *all* 14 activities listed are at least *somewhat* helpful to them in making career selections. However, when ranked by percent of students who rate



them as "Very helpful," differences emerge as illustrated in Table 3 on the following page.



Table 2

Arizona Tenth Grade Survey Results: Participation in Career Preparation and Work Experiences

Activity (ranked by % "Yes" responses)	1997	1998	Significant Differences
Have you ever learned about jobs or careers in class ?	76.6%	79.8%	-
Have you ever had guest speakers come to your class to talk about their jobs?	75.4%	79.8%	+4.4
Have you ever worked for pay (but the job had nothing to do with school or your career interests)?	74.2%	71.1%	-
Have you ever volunteered in the community?	54.4%	61.6%	+7.2
Have you ever used a computer at school to learn about or see people doing different jobs?	54.7%	60.3%	+5.6
Have you ever taken a field trip to a workplace?	54.5%	59.0%	+4.5
Have you ever taken a Career Inventory, aptitude test or other test ?	54.9%	55.3%	-
Have you ever worked on a class project that taught about jobs?	47.2%	52.3%	+5.1
Have you ever gone to a Career Fair ?	44.3%	44.4%	-
Have you ever job shadowed (followed someone around their job)?	36.5%	42.1%	+5.6
Have you ever worked (with pay) in an internship ?	29.1%	33.8%	+4.7
Have you ever worked (without pay) in an internship ?	26.9%	32.0%	+7.6
Have you ever kept a career-related portfolio, file, or album ?	21.8%	24.3%	+2.5
Have you ever had a business mentor ?	14.3%	20.4%	+6.1

It is noteworthy that the activity rated as "Very helpful" by the highest percentage of students—having a business mentor—occurs least often. Working with pay in an internship and job shadowing also are rated highly by at least half of students yet occur relatively less frequently.

Table 3

Activities Ranked by % Students Rating Them as "Very Helpful" For Selecting Careers

Percent rated as very helpful (Rounded to the nearest 10%)	Activity
60%	Business mentor
50%	Job Shadow, Internship w/pay
40%	Volunteer, Computer, Internship w/o pay, Portfolios
30%	Class project, Guest speakers, Unrelated job, Class project, Field trips, Career inventory
20%	Career fair

Relatively few students in both 1997 and 1998 view activities as "Not helpful at all." In 1998, students who

rated experiences as "not helpful" ranged from 5% (Business mentors) to 23% (Working for pay not related to a career).

Adult Influences on Students' Career Selection

Who has been helpful to students in defining their career interests? In both 1997 and 1998, students rank family, teachers, and friends most highly. However, more than half of the students in both years also report counselors and someone else in the community as helpful to them. More students in 1998 (50.8%) than in 1997 (47.7%) also indicated that an employer was helpful, although employers' influences on students' career selections remains lowest of all adults.

Relatively fewer students (one-fourth) in 1998 than in 1997 (one-third) indicated that they never received career guidance at school. In 1998, 80% of those who *did* receive career guidance found it at least somewhat helpful.

In terms of adult influences on career selection, boys and girls differ. Girls more often indicate that friends, someone in the community, and counselors have been helpful to them. They report less often that employers have been helpful. In part, this *may* be a function of the lack of exposure to employers which are reflected in the participation data. Overall, boys are two times more likely than girls to describe career guidance offered in school as “not helpful” (24.7% compared to 12.6%).

High School Curriculum

While a majority of students have some idea about their career, less than half report being aware of courses related to their career interests and even fewer report actually taking a course related to their interests. Of the remaining students, they are nearly split in voicing the opinion that they either “don’t know” about courses relevant to their career interests or are certain that there are no such courses available to them.

Discussion

This briefing paper presents top line survey results for Arizona tenth grade students in 1998 and examines the changes that have occurred between the second and third years of implementing the state’s School To Work system. Data indicate that relatively more tenth grade students in the 1997-98 school year participated in a greater range of career-related activities than their 1996-97 peers. Significant changes in the both the intensity and variety of activities are noted. These data suggest that notable progress has been made in expanding career awareness activities within the state-funded STW partnerships.

Following the *STW Opportunities Act of 1994*, the question is whether participation in these activities has an impact on students, particularly regarding their ability to select a career interest. Survey results suggest that participation in career-related activities can significantly influence a student’s ability to select a career interest — depending on the *extent* of a student’s participation. This is evidenced by a two-year trend which reveals a positive relationship between students’ identification of a career interest and the number of activities in which they participate.

However, according to student opinion, not all activities are of equal value. Work experiences not connected to a student’s career choice are frequent, but are most reported as “not helpful.” In contrast, less frequently occurring, but more helpful, activities are internships, mentorships, and job shadowing. Additionally, albeit to a lesser extent, volunteer activities, computer usage, internships without pay, and career portfolios are rated as very helpful. ***These data suggest that for older students, a portfolio of activities tied to the curriculum may offer the best approach to***

meaningful career development.

Data also suggest the need to coordinate the efforts of adults who influence students’ career choices. In both 1997 and 1998, school personnel continue to have a limited role in helping students with career decisions. Most students receive career guidance from family members. Although business mentors are perceived as being most helpful by students, they are reported least often. Therefore, ***enhancing the roles of school personnel, leveraging the influence of parents, and increasing the role for business mentors appears to be advisable.***

Gender continues to play an important role in the selection of career interests evidenced by students’ identification of their *Career Pathway*. While more girls than boys believe that all jobs are equally good for both women and men, girls continue to be under represented in the Engineering/Industrial Systems Career Pathway and dominate the Health Services Career Pathway. ***Targeted career development strategies may be in order, should more a equitable representation of genders in Career Pathways be desirable .***

Finally, students do not, in general, perceive that there are courses available in their high schools which provide them the opportunity for career development. ***The role of the school could be further strengthened by aligning curriculum with careers.***



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School To Work is a division of the Arizona Department of
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