In spring 1998, 1,020 seventh-grade students were surveyed as one component of a statewide evaluation of Arizona's school-to-work system designed by the Morrison Institute for Public Policy. This second survey measured attitudes toward and participation in career activities. Results were compared to baseline data collected from over 2,000 seventh-grade students in 1997. Data showed that student participation in activities increased. Top-ranked activities were the same in both years: classroom speakers, discussions with adults, class projects, field trips, and job shadowing. In both years, more than 60 percent said at least one activity helped them think about choosing a career; roughly 35 percent indicated having a definite idea of what they want to do in the future; and student participation in various activities was positively related to their ability to define a career interest. In both years, mentoring by other adults was up, whereas mentoring by school personnel had decreased. Students who talked to adults about their careers were significantly more likely to have identified a career interest. In both years, fewer boys were apt to report any adult talked to them about careers. The number of students who planned to take classes in high school that teach job skills showed a statistically significant decrease. Girls were more certain they would take classes. In both years, about one-third of students agreed some jobs are best for women, and some for men; boys agreed most often. (YLB)
Seventh Grade Students' Perceptions of Career Awareness and Exploration Activities in Arizona Schools:
Two-Year Trends
S
Schools, businesses, and communities throughout Arizona are 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 seventh grade students is one component of a statewide evaluation of Arizona's STW system designed and implemented by the Morrison Institute for Public Policy. Seventh 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 seventh 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 students have participated in career awareness and exploration activities appropriate for their grade level,
2) assess the overall impact of such activities,
3) explore the extent of adult mentoring in students' lives,
4) gauge student interest in high school classes that teach job skills, and
5) examine student opinions regarding gender and jobs.

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 seventh 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 seventh grade students throughout the state. The survey was administered again in spring 1998 to 1,020 students. The demographic characteristics of the sample populations for both years parallel those of seventh grade students statewide.

The 1998 sample represents 3.8% of the seventh grade population served by the state-funded STW partnerships. Results are reliable at a 95% level of confidence with margins of error not exceeding ±2.1 percentage points. Survey results were weighted to reflect the actual proportion of students enrolled within each partnership by gender.

Summary of Results

Participation in Career-Related Activities

In both 1997 and 1998, students were asked about their participation in ten career awareness and exploration activities. Table 1 (page 3) summarizes participation results for both years. Data suggest that, overall, student participation in activities has increased. Specifically, statistically significant increases in student participation are noted in five activities: Using computers to learn about/see people doing different jobs (+19.2%); Taking a
Career Inventory or other test (+16.2%); Attending a Career Fair (+7.4%); Working on a class project (+4.6%); and Touring the school to see people doing different jobs (+4.0%).

Additionally, more than half of those surveyed in 1998 report participating in six of the ten activities on at least one occasion—up from the 1997 students' participation in five activities. Top ranked activities, or those in which a majority of students report participation, are the same in 1998 as in 1997, i.e., classroom speakers, discussions with adults, class projects, field trips, and job shadowing. Notably, analyses of results by gender reveal that relatively more girls than boys participate in field trips, career inventories, and talking to adults, while boys' computer usage exceeds that of girls.

Impact of Participation

In both 1997 and 1998, more than 60% of the students surveyed say that at least one activity has helped them think about choosing a career (see Table 1). Additionally in both years, roughly 35% of the students surveyed indicated having a definite idea of what they want to do in the future as shown in Figure 1 below. The percentage of students who have not identified or selected a career interest remains stable at approximately 14% for both years.

Analyses by gender reveal that girls were significantly better able to express their career interests than boys in 1997. These differences disappeared in 1998. However, in both years, significantly more girls than boys report that activities are helpful in defining their career interests.

Perhaps one of the most significant findings in both 1997 and 1998 is that there is a positive relationship between student participation in a variety of activities and their ability to define a career interest. For both years combined, 95% of students participating in eight or more activities have identified a career interest compared to 64% of those who participated in only one activity. Figure 2 depicts this relationship.

**Figure 2**
Student Ability to Define Career Interest by Level of Participation

![Bar chart showing the percentage of students able to define a career interest by level of participation, with 95% for 8+ activities, 89% for 6-7, 85% for 4-5, 80% for 2-3, and 64% for 0-1 activities.]

**Adult Influences on Students' Career Interests**

The survey also examines the role of adult mentors in helping students to identify their career interests. Students are asked whether adults—other than family members—have ever talked to them about things like homework, life, and career interests. In both years, over two-thirds of the students surveyed indicated talking to at least one adult in this capacity. In contrast, less than half of all students (43% in both years) report that one of these adults is someone from their school.

Table 2 shows that, in both 1997 and 1998, greater shares of students speak with adults outside the school than to school personnel (teachers, counselors, or principals). Mentoring by other adults is, in fact, "up" while mentoring by school personnel is "down." The most dramatic decrease occurred in teachers (-7.4%) followed by principals (-5.6%).
### Table 1
**Arizona Seventh Grade Survey Results: Participation in Career Awareness and Exploration Activities**

<table>
<thead>
<tr>
<th>Activity (ranked by % students indicating participation)</th>
<th>1997</th>
<th>1998</th>
<th>Significant Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have people ever come to your school to talk to you about the work they do?</td>
<td>83.2%</td>
<td>81.5%</td>
<td>-</td>
</tr>
<tr>
<td>Not counting someone in your family, has an adult ever talked with you about things like your homework, life, and career interests?</td>
<td>66.5%</td>
<td>68.9%</td>
<td>-</td>
</tr>
<tr>
<td>Have you ever worked on a project in class that helped you understand jobs?</td>
<td>63.7%</td>
<td>68.3%</td>
<td>+ 4.6</td>
</tr>
<tr>
<td>Have you ever taken a field trip to a workplace to see people doing different jobs?</td>
<td>63.3%</td>
<td>65.2%</td>
<td>-</td>
</tr>
<tr>
<td>Have you ever job shadowed?</td>
<td>60.2%</td>
<td>58.5%</td>
<td>-</td>
</tr>
<tr>
<td>Have you ever used a computer at school to learn about or see people doing different jobs?</td>
<td>36.1%</td>
<td>55.3%</td>
<td>+ 19.2</td>
</tr>
<tr>
<td>Have you ever taken a Career Inventory or other test to help you decide what kind of careers or jobs you might be good at?</td>
<td>30.2%</td>
<td>46.4%</td>
<td>+ 16.2</td>
</tr>
<tr>
<td>Has anyone from school talked to you individually about your career or job interests?</td>
<td>43.6%</td>
<td>43.1%</td>
<td>-</td>
</tr>
<tr>
<td>Have you ever taken a tour of your own school in order to see people doing different jobs?</td>
<td>31.0%</td>
<td>35.0%</td>
<td>+ 4.0</td>
</tr>
<tr>
<td>Have you ever gone to a Career Fair?</td>
<td>23.3%</td>
<td>30.7%</td>
<td>+ 7.4</td>
</tr>
</tbody>
</table>

**Overall impact of participation**

<table>
<thead>
<tr>
<th>% &quot;Yes&quot; Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have any of the activities listed on this survey—like Career Fairs, guest speakers, or talking with someone—made you think about choosing a career?</td>
</tr>
<tr>
<td>Do you know what job or career you want in the future? (Note: Combines &quot;Yes, I know for sure.&quot; and &quot;Kind of— I have some ideas.&quot;)</td>
</tr>
</tbody>
</table>

Students who talk to adults about their about their careers are significantly more likely, statistically, to have identified a career interest (89.7%) compared to students who do not talk to adults (79.3%). The percentage of students who have identified a career interest is even higher if the adult is someone from school (91.1%). In both years, fewer boys than girls are apt to report that any adult had talked to them about careers.

### Table 2
**Mentoring adults**

<table>
<thead>
<tr>
<th>Adult mentor</th>
<th>% students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1997</td>
</tr>
<tr>
<td>Other adult</td>
<td>56.8%</td>
</tr>
<tr>
<td>Teacher</td>
<td>45.3%</td>
</tr>
<tr>
<td>Counselor</td>
<td>16.4%</td>
</tr>
<tr>
<td>Principal</td>
<td>9.7%</td>
</tr>
</tbody>
</table>

### High School Plans

Students were then asked: "Do you plan to take classes in high school that teach job skills?" The share of students who answered "Yes" dropped from 52.6% in 1997 to 48% in 1998 — a statistically significant decrease. Likewise, the percentage of students answering "No" increased from 5.7% in 1997 to 10.9% in 1998 — a statistically significant increase. (The remainder of students in both years responded "Not sure.") Notably, girls are more certain that they will take classes that teach job skills than boys.

### Attitudes Toward Jobs and Gender

Finally, student attitudes were assessed toward jobs and gender. Students were asked whether they agreed with the statement: "Some jobs are best for women and other jobs are best for men."
In 1997, 35.3% of all students agreed with this statement compared to 32.3% in 1998. Nonetheless, differences between boys and girls attitudes remain consistent between study years. Boys agree most often with this statement in both years.

Discussion

This briefing paper presents top line survey results for Arizona seventh 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 seventh 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. For example, more students report using computers to facilitate career exploration. Tools such as career inventories are reported by more students as helping them decide what kind of careers or jobs may fit their interests and abilities.

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 identify or select a career interest. Survey results suggest that participation in career-related activities can significantly influence a student’s ability to identify a career interest — depending on the extent of a student’s participation and perhaps, somewhat, on the student’s gender.

While no significant changes were noted in the overall percentage of students who are able to identify a career interest between 1997 and 1998, a key finding is that a majority of students (roughly two-thirds) from both years are able to identify a career interest. Furthermore, a positive relationship is found between students’ ability to identify a career interest and the number of activities in which they participate. The more activities in which a student participates, the more likely a student is to identify a career interest.

For both years, survey results reveal the importance of adult mentors, whether inside or outside of the school setting. Findings show that mentoring makes a positive difference in terms of helping students identify their career interests. That students value career awareness and exploration activities is reinforced by the nearly half of all students who indicate plans to take high school classes that teach job skills.

Finally, while it is encouraging that students are more aware of opportunities in the workplace that are equally available to both boys and girls, differences do exist between student attitudes based on gender. A greater share of boys continue to feel that some jobs are best for men and others for women.

Other gender differences are apparent throughout the survey results. Girls discuss their future careers more often with adults than boys and are, on average, involved in more career awareness activities (e.g., inventories, field trips). Moreover, significantly more girls than boys report that activities help them in defining their career interests. In contrast, boys appear to be the beneficiaries of adult mentoring less often than girls and, on the whole, participate in fewer activities than girls (with an exception being career exploration through computer usage). Boys also retain more stereotypical attitudes toward jobs and careers than girls.

Taken as a whole, survey results suggest several strategies to enhance the impact of career awareness and exploration activities for younger students such as:

- Expand coordinated efforts to integrate a variety of experiences and activities throughout the year.
- Engage more adults, especially school personnel, as mentors to assist young people to develop their career interests.
- Consider expanding targeted career awareness strategies for girls and boys. [Strategies may capitalize on learning tools that appear to work especially well for each gender (e.g., self-exploration via interest inventories for girls and computers for boys), while ensuring equitable access to and participation in all activities.]

For additional information about Arizona’s School To Work initiative, contact:

Gary Abraham, Director or Mimi Bull, Marketing & Technical Assistance Coordinator at (602) 280-8130.

School To Work is a division of the Arizona Department of Commerce, Office of Workforce Development Policy.

C. Diane Bishop, Assistant Deputy Director
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