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Does Participation in a School-To-Career Program Limit Educational and Career Opportunities?

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Abstract

School-to-career (STC) programs have frequently been criticized for steering participants into a one-track career path and narrowing their scope of educational possibilities. On the other hand, STC programs have been touted for their positive influence on preparing students for the challenges and responsibilities of the workplace. Little empirical evidence, however, has been put forth to gauge the positive/negative effects of STC program participation with respect to career plans, educational trajectories, and labor force attachment post-high school. This paper examines graduates of a manufacturing focused STC program alongside a comparison group in order to detect similarities and differences in their post-high school lives. STC graduates are more likely to work in and have career goals that are aligned with the STC program sponsor, yet have higher post-secondary enrollment rates, greater educational expectations, and are better prepared for the transition to young adulthood. Most importantly, program participation

does not compromise career goals.

Maintaining the principle of equality of opportunity for students while simultaneously preparing them for the challenges of adult life has remained at the heart of the debate over the role of career development and career training in the American education system. This tension remains of concern as educational policy makers evaluate the School-to-Work Opportunities Act of 1994 (STWOA) which, unlike traditional vocational initiatives that have historically targeted the non-college bound, sought to bridge partnerships between schools and local businesses to provide work-based learning for all students (U.S 103rd Congress, 1994). Those who support the STWOA assert that it is necessary for schools to equip students for the situations and tasks they will face in the adult work force (Lewis, 1997; National School-to-Work Learning and Information Center, 1999). Opponents, on the other hand, argue that it serves the interests of business over students and consequently removes individual agency from establishing personal career trajectories (Lewis, Stone, Shipley, and Madzar, 1998; Miller, 2001; Patterson, 1999).

Although inquiries on the transition to young adulthood have looked at the role of traditional vocational education on youth development (Arum & Shavit, 1995; Kerckhoff & Bell, 1998), little empirical evidence has been put forth that critically examines the influence of participation in a school-to-career (STC) program on career plans, educational trajectories, and labor force attachment post-high school graduation. In this paper, we examine graduates of a STC initiative alongside a comparison group to see if and how their career plans and post-high school lives differ.

The School-to-Career Debate

Proponents of the school-to-career movement maintain that the skills and values required by employers need to be integrated into the agenda and practices of the standard school curriculum so that upon graduation, students will be able to successfully transition into and achieve in the labor force. Indeed, this pragmatic orientation towards education was an impetus for education policy reform within the past two decades. One of the most influential pieces in the debate was the frequently cited 'A Nation at Risk' report (National Commission on Excellence in Education, 1983), which blamed public education for failing to prepare students for higher education and the work force and consequently doing harm to the United States' economic eminence. This indictment of America's schools sent education policy makers down a split path. The first wave of reform stressed a 'back to the basics' agenda with an emphasis on college preparatory English, math, and science (Lewis et al., 1998). This movement was by and large focused on helping the already college bound sharpen their skills to compete in a global economy in which the U.S. was losing ground. The second wave of reforms, driven in part by reports such as Parnell's The Neglected Majority (1985), was geared more towards the non-college bound population (Lewis et al., 1998). For them, gaining the skills required by employers, rather than a college focused curriculum, was necessary for a smooth transition into the workforce. The integration of workforce skills into traditional academic courses for both college bound and non-college bound youth became increasingly viewed as vital to the health of the domestic economy.

The Secretary's Commission on Achieving Necessary Skills (SCANS) helped propel the idea of workforce development in the classroom by compiling a list of skills most desired by major U.S. employers. They identified two central areas: (1)

foundation skills such as reading, writing, and math and (2) workplace competencies such as time allocation, team work, and evaluating and communicating information (U.S. Department of Labor, 1992). Their intent was to give schools adequate guidance in integrating workplace competencies into core subject areas that are typically occupied by foundation skill development so that both college bound and non-college bound youth could benefit. It was argued that if the U.S. wanted to maintain its economic competitiveness, it would have to restructure the relationship between education and employment in order to optimize the human capital of all youth.

The largest policy response towards the school-workforce mismatch came in the form of STWOA which provided nearly $2 billion in seed money to support programs that included internships, career academies, job shadowing, and financial assistance to individual states (Cutshall, 2001; Halperin, 1994). Influenced in part by the SCANS project, the STWOA was premised on school-based learning, work-based learning, and connecting activities in these two areas through school employer-community based partnerships. Unlike traditional vocational education, programs stemming from this initiative sought to assist all students - not just the 'non-college bound' population. Since its inception, the STWOA has helped to establish over 1,200 local STC partnerships including more than 50,000 schools and 244,000 employers (Cutshall, 2001; Medrich, Beltranena, & White, 2001).

Opponents of the policy contend that STC programs serve to reproduce and reinforce inequality in society by forcing students to make hard and fast decisions about their occupational futures while they are still in school (Miller, 2001; Patterson, 1998). Critics of STC, and vocational education more generally, worry that participating in career development programs creates a 'steering effect' in which students' educational and career plans are guided to match the profile of the sponsoring company's employees. By building a curriculum around a set of job specific skills, equality of opportunity that public education is intended to provide is compromised. Since those students who are enrolled in traditional vocational programs are disproportionately racial minorities/of lower socioeconomic status (National Center for Education Statistics, 1996; Oakes, 1985), spending time outside of the classroom and in an occupational setting only further validates tracking and denies them crucial educational capital (Lewis et al., 1998). Further, corporate intervention into schools places the content of the curriculum at the mercy of employer needs instead of equally preparing all students for educational and career transitions in general. Some of the most severe criticism contends that school-to-career programs ruin the academic potential of students and removes their autonomy in making choices about their future (Miller, 2001; Patterson, 1998).

In the midst of these claims, the literature on STC, albeit disparate, suggests that students are benefiting from participation (Hershey, Silverberg, and Haimson, 1999; Hughes, Bailey, and Mechur, 2001; Kemple and Snipes, 2000; and MPR Associates, 1998). Past work has shown that students in STC programs have better attendance rates (Bishop, Mane, and Ruiz-Quintilla, 2000), spend more time doing homework (Kelsh, 1998), take more challenging courses (Bishop et al., 2000), and obtain higher GPAs (Hanser and Stasz, 1999), while at the same time are less likely to be suspended from school (JFF, n.d.) or drop out of school (Kemple and Snipes, 2000). With respect to post-secondary outcomes, a more limited body of research has found that graduates from STC programs are equally, and in some cases more, likely to attend college as other students (Maxwell and Rubin, 2000; Metis Associates, 1999). Some of the most promising results come from an evaluation of a Boston-based STC program which found that its graduates were more likely to

attend college and graduate, find employment, and have higher wages than non-participants (JFF, n.d.).

One of the most comprehensive looks at the impact of the STWOA is Hughes et al. (2001) synthesis of existing research. Across a number of studies designed to evaluate individual programs, they find that STC programs participants maintain good grades and are prepared for college and work. Most notable from their review is the absence of negative outcomes; almost all of the inquires report advantages of participating in this type of program.

Although these previous reports reflect well on STC initiatives, they have yet to tackle the claims that STC tends to limit career choices and stagnate educational attainment. Without empirical evidence on the role of STC as 'institutional tracking' or 'general career skill enhancement,' future educational reform will be misguided. Most of the existing literature is situated around evaluations of individual STC initiatives which are often tailored to aspects of a given program and designed to measure short term outcomes. Although the accumulating body of research from individual studies gives credence to the short term benefit of participating in a STC program, we know very little about career plans, career formation, and outcomes post-high school. Our data, like others, are limited in that it was designed to assess outcomes of participants in a single STC initiative. However, by making use of standard measures (e.g. post-secondary enrollment status, employment type, etc.) alongside measures that indicate career orientations (e.g. future plans, preparedness), we can better understand the complex relationship between STC program participation, educational and career plans, and the transition to young adulthood. Our intent is not to provide a definitive answer as to whether or not STC programs compromise the equality of opportunity principle, but rather to add to the existing body of literature by attempting to answer the following questions:

1. Does participation in a STC program alter individual educational plans?
2. Does participation in a STC program deter educational attainment?
3. Do the career goals of STC participants reflect the industry sponsoring the program?
4. Are graduates of STC programs steered into the company/industry who sponsored it?
5. Are participants of STC programs better prepared than non-participants for the transition to adulthood?

In doing so, we hope to elevate the discourse on the costs and benefits of participating in a STC program.

Method

Participants

This report is based on data collected from all 1999 and 2000 graduates of a STC program sponsored by an automotive manufacturer from the Midwest. This program is characterized by a career development focus, an academic but business/labor-driven integrated curriculum, an emphasis on project-based learning, and a team teaching structure. We feel that this program is an optimal setting to investigate our research questions for the following reasons: an explicit dimension of its mission is to prepare students for careers in the automotive manufacturing industry, participants spend half of each school day of their senior year on the property of the sponsoring company, and they have extensive interactions with

company employees and personnel. During their tenure in the program, students engage in activities such as a simulated assembly line, manufacturing work stations, and engine tear down. In addition to the manufacturing focus of the STC initiative, the schools themselves are situated in a community with a vested interest in the industry: most recently available figures indicate that 14.4% of all persons over the age of 16 in the metropolitan area in which they reside are employed in manufacturing (U.S. Bureau of the Census, 1990). If STC programs limit educational and career opportunities, those effects should be most prominent in programs with an intensive industry component. This report examines one such program.

In order to gauge the influence of the program on the participants, we also collected data from a comparison sample. The comparison group was constructed by matching STC participants one-to-one with non-STC participants controlling for gender, race, age, GPA, and high school attended. The comparability of both samples is presented in Table 1.

Table 1

Sample Demographics

	Group	
	STC	Non-STC
Gender		
Female	34.7%	36.2%
Male	65.3%	63.8%
Race/Ethnicity		
African American	11.9%	12.8%
Asian American	3.0%	2.1%
Latino/Hispanic	5.9%	3.2%
White	75.2%	80.9%
Other	4.0%	1.1%
Father's Education		
Some High School or Less	1.0%	4.3%
High School/GED	32.7%	39.4%
Some College	29.7%	16.0%
Associate's Degree	9.9%	7.4%
Bachelor's Degree	16.8%	21.3%
Graduate Degree	5.0%	11.7%
Don't know/ Not Applicable	5.0%	0.0%

Graduation Year		
1999	47.5%	48.9%
2000	52.5%	51.1%
Senior Year GPA	3.25	3.31
Sample Size	101	94

Instrumentation

The data used in this analysis were from an ongoing longitudinal project in which members of both groups are contacted twice a year (January and July) and asked to report on such measures as post-secondary enrollment status, degree/credential completion, employment status, job satisfaction, and career goals. The data are gathered through both mailed surveys and telephone interviews. Our original sample consisted of 208 students: 104 STC participants and 104 non-STC participants. We are able to retain 101 of the STC participants and 94 of the non-STC participants - resulting in a response rate is 93.8%. For this analysis, we used items asked of the respondents in the base-line interview and the first follow-up interview. The base-line interview, which was conducted at the conclusion of the respondents' senior year, collected information on educational goals, career plans, and demographic background. The first follow-up interview, conducted six months after graduation, collected information on actual activities related to educational and employment status.

Procedure

Due to the nature of the STC project in which students apply to participate, random assignment to either a treatment group or to a control group was not possible. Consequently, we cannot employ inferential statistics. Instead we use descriptive statistics and paired sample hypothesis tests to examine both differences and similarities between the two samples.

Results

Does participation in a STC program alter individual plans for educational attainment?

If a STC program influenced the career decisions of its participants, we would expect that to be reflected in their plans for further education. Specifically, if involvement in a program conditioned its participants to strongly consider an occupational future in the industry of the sponsor, then the bulk of the students should plan on attaining the level of education necessary for employment in that industry. In the case of the automotive manufacturing industry, the academic credential traditionally necessary for an entry-level position is either a high school diploma or a technical/trade school certificate.[1] If STC programs track students into the occupation of the sponsor, as STC opponents claim, we would anticipate that program participants would tend to report either a high school diploma or a technical/trade school certificate as their educational destination. In order to test this, we analyzed a question from the baseline survey which asked students the highest level of education that they plan to complete. Results from this question are presented in Table 2.

Table 2

Plans for Educational Attainment

	Group	
	STC	Non-STC
High School Diploma	2.0%	4.3%
Technical/Trade Certificate	2.0%	2.1%
Associate's Degree	16.3%	16.0%
Bachelor's Degree	41.8%	50.0%
Master's Degree	30.6%	22.3%
Doctorate	6.1%	5.3%
n	98	94

If the STC program served to deter plans for higher education, it is not evidenced in our data. Comparable proportions of both samples planned to attain a high school diploma or a technical/trade school certificate. Additionally, the proportions in these categories are small: only 4% of the STC sample and 6.4% of the non-STC sample planned on attaining the minimum degree requirements for an automotive manufacturing position. A slightly higher percentage of non-STC graduates expected to receive a bachelor's degree while more STC graduates planned on acquiring graduate degrees. If anything, these numbers indicate that STC graduates have somewhat higher educational expectations than the comparison group. There are no signs that participation in the STC program stifled the educational plans of its participants.

Does participation in a STC program deter educational attainment?

While we find no evidence that participants of the STC program had lower educational expectations than the comparison group, the question still remains whether or not the actual educational trajectories of the graduates conform to the pathway prescribed by the industry of the program sponsor. Although students had a chance to participate in different facets of the automotive business throughout the program (e.g. design, labor relations, and lean production), they were primarily engaged in activities that directly related to manufacturing production. As mentioned in the preceding section, most entry-level positions in the manufacturing sector 34 of the company require a high school diploma or a technical/trade school certificate. If the manufacturing focus of the program had steered participants from achieving higher educational credentials, we would expect that there would be greater proportions of STC graduates either enrolled in a technical/trade school program or not enrolled in a post-secondary institution at all. If participation did not have the 'steering' effect, we would expect few differences between the groups with respect to enrollment patterns. To answer this question, we analyzed a question that asked respondents about their enrollment status six months after high school graduation. Results are presented in Table 3.

Similar to the findings concerning plans for post-secondary education, it does

not appear that program participants are at a disadvantage when considering enrollment patterns. Two-year colleges are the destination of choice for graduates from both groups. Although there is a greater concentration of STC graduates enrolled in two-year colleges than are non-STC graduates, the proportions enrolled in four-year colleges are comparable. The distribution shows no signs of a steering effect as there are similar proportions in both samples enrolled in technical training/trade schools and apprenticeship programs. Concerns that participation in a STC program will curtail the academic careers of its participants are not supported by our data as graduates of the program have a higher enrollment rate than the comparison group. Taken together, the educational plans and enrollment patterns of the graduates show that the importance of academic training in the careers of the STC participants is not compromised. STC participants have loftier educational plans and have a higher enrollment rate six months after graduation.

Do the career goals of STC participants reflect the industry sponsoring the program?

Although not perfect predictors of the actual jobs they will hold later in life, knowing students' career goals upon completion of high school provides a window into the kind of careers they envision for themselves. While we find only a few differences with respect to educational plans and enrollment rates, we are interested in the types of careers for which these educational trajectories eventually lead. To assess whether there is a relationship between career plans and STC program participation, we analyzed a set of questions from the baseline survey that inquired about their career goals. Specifically, we asked students if their career goals were related to the automotive industry. Results from this question are presented in Table 4.

Table 4

Goal Related to the Automotive Industry

	Group	
	STC	Non-STC
Yes	33.0%	8.6%
No	31.0%	71.0%
Not Sure	36.0%	20.4%
n	100	93

If the concern is that students who participate in STC programs will aspire to work in the industry of the sponsor, the evidence from this question is mixed. Indeed, STC graduates are almost four times more likely to have a career goal that relates to the automotive industry than those who did not participate in the program. However, given that the program was aimed at career preparation for the automotive industry and that students applied to participate in the program based on pre existing interest, that only one-third plan on working in the automotive industry is remarkably low. Although this suggests that the program may have had a steering effect towards the automotive industry for some students, it does not mean that they are pigeonholed into a type of job or even into the production sector within the

industry. While their goals may relate to the automotive industry, they may not necessarily relate to manufacturing production. To further investigate this, we looked at a question that asked the respondents to write out their career goal. We then classified their responses by occupational type. Percentages of both total samples as well as frequencies of only those who reported having a goal related to the automotive industry are presented in Table 5.

The majority of graduates from both samples aspire to be professionals.[2] The second largest category for both groups was "undecided," followed by "manager/business." If graduates of a STC initiative were being steered toward careers in automotive production, we would expect there to be large proportions reporting career goals as either being craftsmen, operatives, or non-farm laborers. This, however, is not the case. The groups were comparable with respect to these three categories; 8.9% of the STC sample and 7.4% of the non-STC noted a desire to become a craftsman. No one in the non-STC sample wished to be an operative or a non-farm laborer while only 1% of the STC category reported them as their career goals.

Although a larger proportion of STC participants reported that their career goal involved the automotive industry, they are not necessarily seeking careers in manufacturing production per se. Out of the 33 'automotive goal-oriented' STC graduates, 22 of them reported a desire to have a professional or manager/business position within the industry while only seven reported wanting to be a craftsman or an operative. This suggests that their goals, although in the realm of the automotive industry, are not solely production focused. This should assuage the fear that occupational training promotes occupational tracking: the majority of all students aspire to professional careers and STC program graduates, who were intensely exposed to the automotive shop floor, are no different.

Are graduates of STC programs steered into the company/industry who sponsored it?

One of the biggest concerns of STC opponents is that by allowing businesses to influence the school curriculum, local labor market needs will dictate the career paths of the students. That is, students' participation in a STC program will link them to a specific industry and consequently nullify their opportunities to explore other occupations. If this is true, we would expect greater proportions of our STC sample to be employed at the program sponsor or in the industry of the program sponsor. To examine this issue, we looked at two questions asked of both samples in the six-month follow up interview. The first question asked the respondents the name of their current employer. We then tallied the number of respondents who reported working for the sponsoring company. The second question asked the respondents if their current job was related to the automotive industry. Results from both questions are shown in Table 6. Percentages reflect only those who reported being employed.[3]

Table 6

Employment Status; Six Months After High School Graduation

	Group	
	STC	Non-STC

Employed at Program Sponsor		
Yes	13.0%	0.0%
No	87.0%	100.0%
Employed in the Automotive Industry		
Yes	20.8%	11.6%
No	79.2%	88.4%

Thirteen percent of the STC sample were employed at the sponsoring company following graduation. Although this figure seems high when compared to the non-STC sample in which none of the graduates were employed at the sponsoring company, it is commensurate with the percentage of the overall community (10.2%) that are employed there. It is not too surprising that none of the non-STC sample are employed for the program sponsor given that only 8.6% of them aspire to a career related to the automotive industry and that it has become increasingly difficult to get hired at the sponsoring company.[4] The STC participants' contact with staff and personnel most likely served as links to positions in the company. When looking at the likelihood of employment in the automotive industry more broadly, STC graduates are almost twice as likely to be working in the automotive industry than their non-STC counterparts. This is commensurate with the fact that 14.4% of the working adults in their community are employed in the manufacturing industry. However, that only 16 of 101 students are employed in the automotive industry given the focus of the program is surprisingly low.

These figures indicate that STC graduates may have a greater propensity to find work in the automotive industry, but are they being siphoned into employment at the program sponsor and compromising other career options? Although it is tempting from the statistics to make that claim, we caution that these figures provide only a snapshot of an intricate and transient time in the lives of young adults. The volatility of the youth labor market and the fact that the graduates are fresh out of high school precludes us from making firm conclusions. For instance, the majority of both groups employed in the automotive industry are enrolled in college or a post-secondary training program and both aspire to a bachelor's degree or better - which is similar to the enrollment rates and plans of both samples in the aggregate. Many of these workers may only be temporarily employed while pursuing college degrees or they may be working these jobs while deciding which career path they would like to pursue. It is important to keep in mind that the respondents are only six months out of high school and that job turnover is highest for this age group (Ryscavage, 1997). Because this is such an ephemeral time in the lives of young adults, making conclusions about labor force outcomes from cross sectional data can be misleading. While we too are restricted in this respect, our data indicate that STC graduates are not limiting themselves with respect to work and education. Involvement in the STC program most likely helped the graduates to obtain a position in the automotive industry following graduation (which is evidence of the positive role of social networking that stems from school-business linkages), but that employment in the automotive industry is not necessarily their final career destination.[5]

Are participants of STC programs better prepared for the transition to adulthood?

One of the key arguments put forth by STC proponents is that participation in

occupational training is essential for preparing students 36 for the challenges and responsibilities faced during the school-to-work transition. Since part of the STWOA's mission was to prepare all students for life post-high school, regardless of academic orientation, we would anticipate that STC graduates would have smoother transitions into their early adult years. In order to gauge if participation in the program prepared students for this pivotal time in the life course, we asked them: "Using a scale of 1 to 10 with 1 being 'not helpful at all' and 10 being 'very helpful,' how helpful were your experiences throughout your last year of high school in preparing you for the following items." The respondents then had to rate their degree of preparation on seven measures. To test if there were significant differences between the groups on this scale, we employed paired sample hypotheses tests. This method assesses whether differences between matched pairs (i.e. the STC graduate and their matched counterpart in the non-STC sample) on a given item are significantly different from zero. Overall group means and test results are shown in Table 7.

On all seven items, the means for the STC sample are higher than the means for the non-STC sample and the differences between the matched pairs are significantly different from zero. Most notable is that while the samples were matched along key demographic characteristics with the only educational difference being participation in a STC program during their senior year, the STC graduates were more likely to report that the experiences of their senior year were useful in preparing them for the transition. These findings indicate that regardless of whether graduates pursue further education or to enter the world of work, participating in a STC program is beneficial in making transitions and decisions during a critical time in the lives of young adults.

Table 7

Means and Paired Sample Hypothesis Test Results; Utility of Senior Year of High School

"Last year of high school was helpful in preparation for..."	Group			
	STC	Non-STC	t	df
Getting into college*	7.44	6.71	2.23	84
Getting a job**	7.63	6.27	3.79	83
Knowing how to act at work**	8.36	6.83	4.64	88
Asking questions/solving a problem*	8.92	8.68	2.25	88
Making decisions in your personal life*	7.33	6.73	2.13	88
Making education and training decisions**	8.06	7.15	3.63	88
Making career decisions**	8.16	7.08	3.92	88
NOTE: *p<.05, **p<.01				

Discussion

Table 3

Educational Enrollment Status; Six Months After High School Graduation

	Group	
	STC	Non-STC
Two Year College	49.5%	40.4%
Four Year College	32.7%	36.2%
Technical Training/Trade School	2.0%	3.2%
Registered Apprenticeship Program	1.0%	1.1%
Total Enrollment Rate	85.2%	80.9%

Stemming from the debates between John Dewey and David Snedden in the early 20th century (Hyslop-Margison, 2001), discourse over the purpose of and need for integrating workforce skills into the classroom has largely hinged on the question of 'who benefits?' As noted earlier, the critics of the STC movement claim that local labor market needs dominate over equal and fair access to educational opportunities and that educational attainment and career plans are squelched in the process. While examining if STC programs are a significant benefit to local industry is beyond the scope of this paper, we do provide empirical evidence that participating in a STC program does not 'track' nor stagnate the educational and career plans of its graduates. If anything, our analyses reveal that STC graduates benefit from the experience via higher enrollment rates, higher educational expectations, and reports of being better prepared for the transition to young adulthood.

In some respects, claims from both sides of the debate are supported. Opponents of STC can easily point out that graduates from the STC program are more likely to report having a career goal that is related to the automotive industry and are more likely to be employed in the automotive industry six months after graduation. At first glance, it does appear that involvement in the program prepares students for a career into a specific industry (in this case automotive manufacturing) and that the industry benefits by having a supply of workers already trained for the job. However, it is important to remember that selectivity into the program may be producing the differences between the groups, not the program itself. Critics who claim that participation in STC programs removes individual autonomy need to keep in mind that students who already have an interest in pursuing a manufacturing career are more likely to apply to a STC program that focuses on manufacturing. Indeed, these students went through an application process for admission into the program. Because we could not randomly select students into either the STC or the non-STC sample, we caution that interpretations of our results may reflect underlying pre-existing differences between the samples.

With respect to the evidence that supports STC opponents, a careful consideration of other indicators such as the students' educational plans, enrollment patterns, and career goals, as well as the community within which the schools are situated, illustrate a scenario that is more complex than any single indicator taken alone. Most of the STC graduates who are working in the automotive industry are also enrolled in school and plan on attaining a bachelor's degree. It is most likely

that their jobs are temporary as they are pursuing a college degree. In other words, working temporarily in the automotive industry may be a financial means to an educational end. The social networks that were established as well as the skills acquired throughout the program's duration most likely enabled them to find employment quickly out of high school. Additionally, this attachment to the sponsoring company benefits working students in that their hourly wages are greater than non-STC students.[6]

That a large number of STC graduates envision a career in automotive manufacturing is not unusual given that they were raised in a community where a sizable proportion of the adult population is employed in the industry. What is promising is that they are just as likely to aspire to professional careers as their non-STC counterparts and overall have higher educational expectations. Their orientation to the automotive industry could be a reflection of the community in which they were raised. Their educational and career plans, on the other hand, indicate a desire for professional careers, rather than production line work.

Our analysis only scratches the surface with respect to the hundreds of STC projects that have resulted from the passage of the STWOA. In many ways, our research is preliminary. Graduates of the program are only recently out of high school and their careers are only in their infant stages. We plan to continue to track these cohorts for several more years. Our research focused on a STC initiative that took place during the final year of high school. Different findings could stem from programs that intervene earlier in the academic careers of students. Further research is needed to examine the scope and variety of STC projects and their influence on the career trajectories of its graduates. Particular attention needs to be paid to the industry type of the sponsoring company as well as the labor market in which the school is nested. Longitudinal designs, like the one employed here, would be most useful.

At the turn of the 20th century, a major educational focus was the skill mismatch between the traditional curriculum of the schools and the newly emerging industrial economy. In many ways, the same issues face educational reform today as we confront a global 38 economy that is driven by information technology. Higher education and career preparation are important as ever as young adults navigate their way into a labor market that requires advanced training and specialized skills. Our findings suggest that initiatives aimed at bridging the gap between the classroom and the work place are not misguided. We find no evidence that these types of policies in any way harm the post-secondary plans and early attainments of students. In fact, the results show favorably on this type of partnership. Policies that support STC programs should be encouraged, but should remain flexible in their content as to prepare students for STC transitions in general and a variety of career paths.

Table 5

Occupational Classification of Career Goals

	% of Total Sample		# of Automotive Goal-Oriented	
	Group		Group	
Occupation Type	STC	Non-STC	STC	Non-STC

Professional	33.7%	25.5%	19	4
Education	3.0%	8.5%	-	-
Doctor	5.0%	3.2%	-	-
Health Care	5.0%	3.2%	-	-
Law	3.0%	4.3%	-	-
Manager/Business	10.9%	9.6%	3	1
Official	1.0%	3.2%	-	-
Clerical	0.0%	2.1%	-	-
Craftsmen	8.9%	7.4%	6	-
Operatives	1.0%	0.0%	1	2
Service	5.0%	6.4%	-	-
Non-Farm Laborers	1.0%	0.0%	-	-
Military	2.0%	0.0%	-	-
"General Success"	5.0%	8.5%	1	-
Undecided	15.8%	18.1%	3	1
n	101	94	33	8

Notes

[1] Although the sponsoring company is committed to increasing the educational capital of its workers and to developing production line positions which increasingly require a four year degree, the U.S. Census Bureau's Current Population Survey (2000) shows that 78.8% of employees in the manufacturing industry have a two year degree or less and that 95.6% of machine operators, assemblers, and inspectors hold a two year degree or less.

[2] This category included job types such as engineering, math, computer science, architecture, and communication.

[3] Percentages employed six months after high school graduation were comparable between the two groups: STC 76.2%; non-STC 73%.

[4] In addition to low hiring rates at local facilities, employees must also pass rigorous new hire assessments tests.

[5] Of the 10 who are employed at the sponsoring company, 7 are enrolled in post-secondary education.

[6] In an analysis not presented in this paper, STC graduates have been found to have significantly higher hourly pay rates than the non-STC sample. The difference in the pay rates is partly explained by the higher wages received by those working for the program sponsor.

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