

SCHOOL TO WORK PROGRAMS IN RURAL MICHIGAN IN RURAL MICHIGAN DURING  
CHALLENGING ECONOMIC TIMES

by

Greg Staricha

SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR  
THE DEGREE OF MASTER IN SCHOOL AND GUIDANCE COUNSELING AT  
NORTHERN MICHIGAN UNIVERSITY

Nov. 30, 2009

APPROVED BY: Derek L. Anderson, Ed.D.

DATE: December 11, 2009

<u>Chapter</u>	<u>Page</u>
Abstract.....	3
I. Introduction and Statement Problem.....	4
Introduction .....	4
Research Question.....	5
Definition of Key Terms .....	5
II. Review of Literature.....	9
Approaches to STWOA.....	9
Pima and Santa Cruz.....	9
Bridges to Work.....	10
California School to Work.....	11
Lansing Area Manufacturing Program.....	12
Other Programs.....	13
III. Analysis of Data .....	15
Financing the Program.....	15
Community Partnerships.....	16
Graduating, Retention, Workplace Knowledge.....	17
IV. Discussion and Conclusion.....	20
Discussion: Study and Program Limitations.....	20
Conclusion.....	21
Bibliography (References).....	25

### Abstract

Rural School to Work Programs in the State of Michigan are struggling to survive during the current economic times. The programs are vital for schools working hard to increase retention rates and graduation rates while at the same time satisfying State Merit Curriculum requirements, satisfying No Child Left Behind requirements, and providing necessary career knowledge and skills for graduating students. School to Work programs succeed in allowing under-credited, overage students the chance to graduate and obtain a career, but the lack of funding provided by the State makes it difficult to create and sustain School to Work programs. There are ways to develop and implement School to Work Programs. School Districts need to work closely with local community businesses to design, fund, and implement programs needed in the areas surrounding the school district.

## CHAPTER 1: INTRODUCTION

In 1995 the State of Michigan congress passed Proposal A, changing the source of funding for the state's public schools from land tax to sales tax assessed to all products excepting food and non-alcoholic beverages. The change was designed in such a way that inequities in funding between urban and rural schools would be eliminated. At the current time, the inequities still range from a low of \$7,200 in some rural schools to as much as \$11,500 in some urban areas. With the current national economic slowdown, the enormous loss of jobs in the State of Michigan, and future sales forecasts showing no to very small growth, the state is being forced to cut money from schools to balance the budget as mandated by state constitution (Michigan Department of Education, 2006; 2008).

At the same time as the economic uncertainty is hitting the schools hard, the national No Child Left Behind Act, the State of Michigan's revised Merit Curriculum, and the push towards a national curriculum makes it harder and harder for students to take non-core classes such as building trades, machine trades, and classes such as woodshop, metal shop, and cabinetry (Michigan Department of Education, 2006). The State of Michigan curriculum is designed in such a way as to encourage all students to attend some form of further education, yet there is a large portion of students in the public school system that are struggling with the currently written curriculum, which requires all students pass Algebra II (Barlow, 2007; Michigan Department of Education., 2006). These students are those that might become construction workers, automotive mechanics, electricians, plumbers, and many other blue-collar jobs. The job training requirements for this form of labor is greatly different than the job training required for doctors, engineers, lawyers, and the many other jobs in the white collar sector. The United States' Congress passed the School to Work Opportunity Act (STWOA) in 1994, and funding ended in

1999, but the results of STWOA become a very important part of the research for this paper (Vitu, 2002).

### *Research Question*

The School to Work Opportunity Act allocated monies for local school districts to design and implement programs designed to prepare high school students with skills and knowledge to gain employment in the blue-collar workforce (Vitu, 2002). Many related programs were designed and implemented in school district across the nation. Some of the programs were successful, some were not, but the end results of the programs were the same: Most of these programs were discontinued within five years of implementation. Although there were many different reasons for discontinuing the programs, the one reason common to all was the lack of funding sources. This poses the following question: *What are the characteristics required of an effective building trades program in rural Michigan schools during hard economic times?* To answer the question, it is first necessary to define several terms that will be used in the following chapters in this paper.

### *Definition of Terms*

Graduation is defined as receiving a diploma from a public or private high school, while graduation rates are numbers comparing the amount of students graduating with the amount of students enrolled four years earlier (Lehr, 2004). At first glance, graduation rates may not seem to be an accurate descriptor of school proficiency. However, when a person looks into the formulas used to determine the actual graduation rates, a person begins to see the factors used in determining how many students entered the ninth grade, and how many graduated from the same school after completing the twelfth grade four years later. One of the items looked at is the number of students that move out of a district. If the student attends school at a different high

school without missing a year, that student is not counted against the graduation rate. If the student does not finish his or her high school career in four years, the student is counted against the graduation rate (Lehr, 2004). If a student moves from district to district but manages to graduate with only four years of high school education, that student is considered a four-year graduate and does not negatively influence graduation rates. Graduation rates are only affected when a student begins the ninth grade and does not finish the twelfth grade after four years. Other circumstances may affect graduation rates such as early graduation, illness, learning disabilities, and family circumstances, but the school's dropout rate negatively affects graduation rates and the school's adequate yearly progress (AYP) (Lehr, 2004).

Dropout rate is defined as the number of students that start the ninth grade of a high school, but cease to attend a high school and enter the work force without receiving a diploma. Retention rate is defined as the number of students that receive a diploma in no more than four years compared to the number that entered the ninth grade (Lehr, 2004). Drop out students who do not receive a diploma certifying high school completion tend to make less money per year and receive fewer job promotions than students who do receive a diploma (New Hampshire Department of Education, 1999; Pluviose, 2008). Students who do drop out of high school tend to have a negative effect on the local and state economies (Lehr, 2004). As the students move on in life, many will tend to marry and have children. Due to the lack of a diploma, many of these families will earn much less in salary and benefits when compared to those families that have only one of the parents with a diploma. If both parents have a diploma, the disparity is much greater (Lehr, 2004; Vitu, 2002). The lower financial standings allow the families to qualify for Medicare, Food Stamps, and other programs funded by either the federal government and/ or the state the family resides in (Lehr, 2004; Vitu, 2002). This disparity in income and job promotion

is correlated with many issues, such as an increase in divorce rates (Lehr, 2004), increased domestic violence, and lower self esteem (MacAllum & Bozick, 2001).

Attendance rates are defined as the number of days a student is recorded as in attendance at a school. Most schools record absences, defined as a student not in attendance, as either excused (school is notified why the student was not in attendance), or as unexcused (no reason provided) (Lehr, 2004). Rural schools tend to have a greater proportion of excused absences, while urban schools tend to have greater proportions of unexcused absences reported (Andrew et al., 1997).

Rural school districts generally have a lower dropout rate and higher retention and graduation rates than urban schools. Rural schools are defined as those schools that are not located in a large metropolitan area. Generally, rural schools are seen as schools in relatively small towns with populations less than 50,000 permanent residents. Urban schools are defined as those schools located in the large metropolitan areas, or located in cities with more than 50,000 permanent residents (Andrew et al., 1997).

The final term that has direct correlation to drop out rates, graduation rates, and attendance rates is over-age, under-credited. The term overage, under credited refers to any student that is at least 1 ½ years behind where they should be in obtaining credit for graduation. Every time a student fails to pass a class or be promoted into the next grade level, the likeliness of that student dropping out compounds (Quint, Thompson, & Bald, 2008). The same study has also shown that one half of all ninth grade students become overage, under credited.

Finally, the Washington D.C. Department of Education defines an effective school to work program as one that has the following components. First, an effective school to work program is a system that allows a student to experience the world of work while still in school. Second, an effective school to work program allows students to gain work experience and workplace skills

while still in school, and third, an effective program has partnerships between schools, communities, and employers (Washington Department Of Education, 1995).

## CHAPTER 2: REVIEW OF LITERATURE

Since the passage of STWOA, many approaches in programs designed to allow high school students greater success in the work force have been implemented. Some of the programs were localized efforts such as Building Bridges in San Francisco (Armstrong, 2006) and the Pima & Santa Cruz School to Work Partnership (Vitu, 2002). Others were very comprehensive efforts that involved many people working together trying to develop a program in order to satisfy the requirements of STWOA. Examples of these types of programs are discussed in reports covering programs developed by the states of New Hampshire, California, and Michigan, respectively, and studied by Winona State University (Fawcett & Maycock, 2001), the State of California (2002), and the State of Michigan (MacAllum & Bozick, 2001). This section will discuss each study in turn and disseminate data to show why the programs were considered successes or failures. We will begin with the Pima & Santa Cruz School to Work Partnership program (Vitu, 2002).

In 1996, Pima and Santa Cruz counties in Arizona developed a program to combat increasing drop out rates. The program introduced over 175,000 students from 16 school districts to jobs ranging from retail and food services to automotive repair to high tech computer and engineering careers. The program allowed students to enter the work force in an entry-level position. If the student decided he or she did not like the career choice, the student could then change careers and be placed in a different career (Vitu, 2002).

Both students and business owners agree the program worked so well that when government funding of the program ended, the private sector took over the funding. In response to the switch in funding and the program as a whole, students said that it allowed them to obtain the skills they needed to enter the work force. Students also cited that the program helped them to find a career

they enjoy, and the program gave them the edge they needed to become and stay competitive in the work force. Local business owners look toward the students to fill upcoming workforce needs (Vitu, 2002). By combining local and federal monies to develop, begin, and run a large-scale school to work effort, the counties of Pima and Santa Cruz have successfully developed a STWOA program that both students and educators feel improves the quality of life, and improves the quality of the community.

The school districts in San Francisco, California set up a STWOA program called Bridges to Work in 1996. This program was designed to help place disabled students into local businesses such as Safeway, Bank of America, Forever 21, Williams Sonoma, and Starbucks. Over 8,000 young disabled students were taught interviewing, social, and work skills. The young students then filled out applications and went through formal interview processes where they were vying against as many as 150 other applicants for the same position. Although not all students with placements continued to work, over 70% continued to be employed at the same company a year later. The Bridges program has an annual budget of \$6 million, 30% of which is funded by the Marriott Corporation and federal grant monies funding the other 70% (Armstrong, 2006).

A study in 2006 done by the Marriott Corporation found that over 50% of the nation's population with disabilities is not employed (Armstrong, 2006). As the baby boom generation continues to have fewer children, employing personnel that may have disabilities will become a necessity, and it will benefit the disabled as well (Armstrong, 2006). By removing the stigma that disabled persons are hard to train and manage, the Bridges to Work program has shown that the willingness, eagerness, and ability of disabled personnel to perform well in a position is not only possible, but most likely a very good potential market to pull from to fill vacant positions.

California set its School to Career (STC) initiative in 1994 in direct response to the national STWOA. This program was responsible for setting up a statewide system of funding and monitoring programs developed at the local school district level. In 1999, the state contracted with WestEd and MPR Associates to conduct a study of the state's programs to see if the STC programs were working. Rather than report on the overall statewide data, the study focused on 13 case studies to answer certain questions. One of the questions was, "How has STC affected student preparation for postsecondary education and career entry?" (WestEd & MPR Associates [WestEd], 2002, p. 8).

First, one must remember that the California STC Initiative did not set up any STWOA programs. The STC functioned in two separate ways, first as the funding agency for efforts implemented by local school districts, and secondly to make sure the local efforts followed the STWOA requirements. The study set up by WestEd and MPR Associates showed that if students actively participated in local STWOA programs, the students demonstrated greater levels of academic and scholastic performance, specifically increased graduation rates. The study was conducted to gauge STC's progress and impact. The California Governor, along with WestEd associates conducted reports through a variety of qualitative and quantitative data analysis methods. Some of these methods included employer/labor organization surveys, telephone studies, site visits, administrator surveys, and student outcome analysis. The research conducted gave the state a better understanding of how the program worked in conjunction with 13 labor partnerships, as opposed to previous studies which focused only on STC's on a national scale (West Ed, 2009). The study also demonstrated that students enrolled in the programs were also more likely to enter postsecondary education. If the students did not enter postsecondary education, the students, through student surveys and student analysis outcomes reported greater

job performance and higher levels of positive early employment outcomes than those students who did not participate in the STWOA programs (WestED, 2009).

The data in the report also shows that local businesses and industry must be involved in program development and funding. Teachers, business owners, and all personnel involved have mandatory training in the programs' goals, agenda, and each person's responsibility. The success of any program set up is directly proportionate to the passion and acceptance of the program by each person. If personnel involved do not believe in their ability to make a difference, the program's success will be lowered proportionately to the number of non-believing personnel. In order to obtain in-depth information about teacher attitudes towards STC's, interviews with teachers and administrators were conducted at CORE program schools (WestED).

In a similar study in 2000, the Lansing Area Manufacturing Program (LAMP) was set up in Lansing, Michigan to allow Michigan to obtain some of the STWOA monies. The program was developed as an academically rigorous STC program that included businesses, local labor unions, school, and parent partnerships (MacAllum & Bozick, 2001). The program was studied two years after its inception. The study involved two groups of students. The first group included 48 LAMP participants of random gender and ethnicity. The second group had 46 students of random gender and ethnicities that did not participate in LAMP. Data was collected from the students 6, 12, and 18 months following graduation (MacAllum & Bozick, 2001). The results were tabulated and analyzed to determine whether the program is creating higher graduation rates, higher rates of postsecondary education, and higher rates of job performance for those students who did not enter higher education (MacAllum & Bozick, 2001).

The LAMP study had the following findings:

1. Postsecondary education enrollment was higher (96%) for LAMP student than for non-LAMP students (76%).
2. Non-LAMP students carried a slightly lower (3.29) grade point average than LAMP students (3.30).
3. The statistical difference between the groups' employment rates was insignificant.
4. 4. 16 months after graduation, LAMP students' average wages were \$11.27 compared to \$8.49 for non-LAMP students.
5. LAMP students were better prepared for the challenges and responsibilities of employment (based on decision making, organizational, and time management skills).
6. LAMP students pursued career-enhancing opportunities (further education, job promotions) at greater levels (numbers not provided) than non-LAMP students.
7. LAMP student demonstrated a higher rate of graduation (100%) than non-LAMP students did (95.7%) (MacAllum & Bozick, 2001).

The seven points listed above show that the LAMP program is considered an effective program.

In several other cases, local business owners, states, and even countries are developing programs to encourage high school students to enter the work force (Gruver, 2008; McFarlane & Wilson, 1999; New Hampshire Department of Education, 1999). Local business leaders in Kentucky have changed state laws to allow collecting money from licensed contractors in order to implement a program designed to provide funding for years to come (Gruver, 2008). The

New Hampshire Department of Education has developed several programs that allow school districts the ability to choose which program works best in the district's situation (New Hampshire Department of Education, 1999). Canada has set up a program in which permits for new construction are taxed 1% to fund a program training high school students in construction fields (Gruver, 2008), and in the Midwestern region of the United States, the American Camping Association has developed a camp setting to develop work related skills in high school students using grants from the federal government (McFarlane & Wilson, 1999).

## CHAPTER THREE: ANALYSIS OF DATA

*Financing the program*

In all of the studies reviewed above, the first thing that stands out as being required for program success is program financing. The design and scope of the projects do not matter as much as the financing of the program as indicated in the studies done in Lansing and California (MacAllum & Bozick, 2001; WestED, 2009). Financing issues include how the program is financed, how much financing is available, and how the program would continue to operate after the initial financing ended. All of the studies I was able to gather were initially started by funding provided by STWOA. What this section of the paper has to focus on is what happened after the federal funds were eliminated.

In the Building Bridges program, the local area businesses picked up 30% of the tab for the program cost, federal grant monies provided the other 70%, and the program was able to continue operating after STWOA ended (Armstrong, 2006). The program set up in Tucson ended because the local business leaders were not willing to continue funding for the program even though the data proved the program was successful (Vitu, 2002). The program set up in Lansing continues to operate with well-documented results and very high amounts of financing set up in conjunction with local business leaders and the State of Michigan (MacAllum & Bozick, 2001). While the California study shows that although many programs continue to operate with local businesses financing the programs, many other programs were discontinued due to lack of continued financing (WestED, 2009). Kentucky created a means of financing successful programs by increasing building permit rates and having large contracting companies donate a portion (up to 1%) of their profits to a fund dedicated to funding STWOA programs developed by schools within the state of Kentucky (Equipment World, 2008).

Data analysis shows that the main problem lies in developing a funding method that will not only provide for full funding for program start up, but also stay in place and continue to function after the program is fully implemented. Doing so will ensure the capability of the program to continue to operate well after the initial funding is depleted due to development of the program, staff training, and initial tool procurement.

### *Community Partnerships*

The second crucial item that is included in all studies I reviewed is the critical need for community partnerships. This point became very evident not only in the studies reviewed above, but also in similar findings brought forth in presentations and printed press. Research findings document the students' progress in different work-based programs throughout the nation, but it also analyzes a program or set of programs to see how the programs were set up, how they were developed, how they were financed, and why or why not each program succeeded or failed. In every successful case I was able to find, the second greatest aspect of success was the ability of the program designers to develop a professional relationship with at least one major community business. There is shown to be a direct correlation with the numbers of business partners and the lasting success of a STWOA program (Lippman & Whitney, 2009). In other words, the greater number of businesses involved with the program, the greater the chance of a program succeeding (Andrew, et al., 1997).

All of the research reiterates the need for business involvement. It is imperative that any program set up must include at least one major local community business, but it is vital that any program set up should include an advisory committee consisting of members of local businesses that the program represents (Lippman & Whitney, 2009). For small school districts, particularly in rural Michigan, it is vital that programs be established with the guidance of an advisory

committee to oversee all aspects of the developmental process. The length of a person's appointment to the advisory board should not exceed six months or empathy tends to develop (Lippman & Whitney, 2009). The purpose for school to work programs is to produce positive work-based experiences and training for students of all ability and cognitive levels. The purpose of the advisory board is to ensure effectiveness of the project. Though the continuity and objectiveness of the advisory committee is vital, replacing either one person, or even the entire committee could be a very hard thing to do, and could put stress on the STWOA program's ability to function (Quint, Thompson & Bald, 2008).

The need for any program to develop a successful relationship with local businesses is very evident. Many researchers have suggested that secondary to financing a program, integrating local business owners or representatives into the program development is necessary for program success. A program will have greater possibilities of success as greater numbers of business owners or representative are encouraged to sit on an advisory council that provides direction as a program changes.

#### *Graduating, Retention, Workplace Knowledge*

The last crucial point is the need for students to actually graduate. Although the knowledge required in any one field of work will differ from any other field of work, the required knowledge is hard to gain if students are not staying in school. If students are not being retained long enough to graduate, any and all programs developed will fail to perform the primary function of any STWOA program: All programs are set up to develop any and all required workplace knowledge and skill necessary for a person to become gainfully employed in a successful field of work.

Current data indicates that smaller class sizes not only helps students to graduate, but also increases the likelihood that students will develop better social, academic, and life skills. All of the sources agree that in order to provide the greatest potential for an overage, under credited student the ability to graduate, the student needs to be placed in classes with lower number of enrolled students. Though no maximum or minimum student class size has been researched in conjunction with STWOA programs, one educational researcher, George Conway (1994), argues that small school size positively influences the culture of the school, which can lead to positive outcomes for students in these programs.

As well as smaller class sizes, authors of the studies indicate that students should also have at least some block classes. The block classes must not only teach job specific knowledge, but must also focus on skills the student will need to advance in their chosen field. These skills might include, but are not limited to, social skills, personal hygiene, interviewing and communicating skills, and interpersonal relations. Students taking the block classes must then receive credits in more than one subject in order to up their credits, increasing the potential for graduating on time. As stated previously, there have been few to no empirical studies that have examined the relationship specifically between smaller class sizes and block scheduling and the success of SWOTA programs, but the article authors indicate that in their programs and studies, students with smaller sized block classes feel a closer relation to the instructor, which results in higher self-esteem, higher scores, better retention, and greater graduation rates (Andrew, et al., 1997; Fawcett, & Maycock, 2001; Gerber, & Madaus; J. W. & Price, 2008; Gramlich & Lueking, 2003; Lehr, 2004; Lippman, Whitney, 2009; New Hampshire Department of Education., 1999; Quint, Thompson, & Bald, 2008; Shakrani, 2008; Gruver, 2008). A state

approved, cross-walked curriculum in Algebra and Industrial Arts for a building trades program is shown in available upon request.

## CHAPTER FOUR: DISCUSSION AND CONCLUSION

*Discussion: Study and Program Limitations*

The first area of limitations of this thesis is the lack of studies with data showing results refuting the studies used by the author. I spent many hours trying to find the best studies available to use for sources, but was unable to find any significant studies that did not support the findings of the articles used in this thesis. Someone may yet find such a study, but the author does not think this highly possible. The final considerations that need to be considered are the continual considerations of the State of Michigan when dealing with STWOA programs. Over the course of two years, the author has put together a state approved, cross-walked building trades curriculum that satisfies many of the considerations discussed above. Unfortunately, the school district is not able to get an answer from the State of Michigan's Department of Education (MDE) as to whether or not such a program would be acceptable to count as a math and industrial arts credits. We received word in the fall of 2009 from the MDE that the program would not fit into the Michigan Merit Curriculum, and then we received word that the program would, but we would have to have two instructors for the program: One certified in Math, the other in Industrial Education. We then received word that the Industrial Education instructor may be the sole instructor, but would need to meet with the math instructor weekly to discuss curriculum. Lately, we received word that the state is reconsidering the entire program, but the school district is still allowed to offer the program, but the state does not tell us what credits we are allowed to award. This lack of direction makes creating a program very hard. With the recent changes to the Michigan state curriculum, many issues are still being ironed out at the state level, particularly with work-based programs resulting in core subject area credits. With Michigan's current financial crisis and the increasing of rigor in the core areas, details of partnerships and work programs are taking a backburner to other educational departments. Nevertheless, public schools still need the

resources, specifically in rural areas to increase student skills, graduation rates, and overall school culture.

The final consideration is the state of school aid funding. At the time of this writing, the financial positions of school districts in the state are in limbo. There are rumors that school districts will see anywhere from a ten dollar per student cut in general aid funding all the way to a \$265 dollar per student cut. There also is talk that the cuts for the following aid year will be at least double what they are this year. This fluctuation and lack of secure funding makes for a very hard time to fund a new program, but not impossible. If a school district is adamant that a program is set up, there are ways to fund the program. The funding mechanism may have to be very creative, but there is always a way to fund a program.

### *Conclusion*

School to work programs are developed to help both a school district's school population develop career skills in order to be successful in a career after graduation. The programs also help increase retention and graduation rates, especially in those students whom may be classified as overage, under credited. When an effective program is set up with the help of local business persons, the program will not only be self funding, but will also allow smaller class sizes, allow students to gain knowledge in multiple areas, and will also allow students to improve self esteem while gaining credits at a faster pace. The gathering of credits allows students to enter the workplace as an effective employee having the skills required in the area surrounding the school district.

There are problems to overcome such as lack of funding, developing state approved curriculum, and arranging funding to maintain and grow the STWOA programs, but these obstacles can be overcome through the partnering of the school district personnel, local business

owners, and parents. By creating an advisory committee, the obstacles can be tackled while the main goal of the program is kept in mind: To provide personal, social, and professional skills to any interested student so the student is able to be gainfully employed upon graduating from high school.

The advantage to the school district in developing a STWOA program becomes multifaceted. Data proves that test scores will rise, retention and graduation rates improve, school community relations improve, and the ultimate success is the ability for overage, under credited students to graduate. These students then go on to live a life with a greater standard of living than if they had dropped out of school.

### *Recommendation*

After the review and analysis of several articles about STWOA programs and information and knowledge taken from my own experiences and programs, there are several steps that schools and program directors should take when implementing a school/work-based learning program in rural schools in Michigan. First is to view the successes of similar programs throughout the country, as described in detail in earlier sections of this paper. Second is to ensure funding of the program so that schools and students can adequately fund all the necessary components of the program. Small, rural school districts, specifically in Michigan's economic crisis, face financial difficulties, so funding will more than likely be forced to come from a variety of resources, whether it be local partnerships, school funded, grants, etc. Thirdly, schools must work in conjunction with community businesses to create local partnerships that combine scholastic and real-world experience. Community partnerships ensure that the school, community, and most importantly, the students are benefiting from this program. Local partnerships provide the link between the school and community, helping to provide a positive

image for both. As stated previously, for a small, rural school, there has to be a form of assessment, specifically through the form of an advisory committee. The advisory committee helps to ensure that the project/program is functioning in the correct manner and obtaining the goals that the program set out to accomplish. Finally, it is vital for small, rural school districts to have a commitment from all the individuals involved in the program. When designed correctly, STWOA programs give students the necessary skills to be successful outside of school. It is vital that even though Michigan is struggling financially, these programs are helping to fill and create jobs that will impact our future economy.

The studies reviewed and analyzed, as well as my own personal findings are limited, specifically in the scope of STWOA programs and the research available. There is a large amount of room for growth in the area of researching STWOA programs, specifically empirical research. It is the author's recommendation that future studies should rely on statistical studies, as well as surveys like those conducted in the previously named studies. It would be specifically useful to analyze 10 to 15 STWOA programs throughout the state and gather data such as grade point averages, graduation rates, critical incident rates, attendance, individual feelings towards school environment, etc. By breaking down and analyzing this type of a data in a multifaceted study, researchers would be able to make correlations between student achievement and STWOA programs. This type of study would also provide evidence that funding, one of the major drawbacks for these types of programs, would be justified and purposeful for continuing program success.

References

- Andrew, E.N., Dornsife, C., Flack, N., Hallinan M. T., Jackson, L., Raby, M., & Steadman, M. H. (1997). *Lessons Learned: Five years in the Urban School Network*. (ERIC Document Reproduction Service No. ED424413). Retrieved from ERIC database.
- Armstrong, D. (2006, May 4). Building bridges at work. *San Francisco Chronicle*. Retrieved from ERIC database.
- Barlow, D. (2007). State Standards and the Law of Unintended Consequences. The Teacher's Lounge. Retrieved from [www.eddigest.com](http://www.eddigest.com)
- Bragg, D. (1998). Guest editorial spotlighting postsecondary vocational education research. *Journal of Vocational Education Research*, 23 (2), 51-55.
- Buys, N. J., & Rennie, J. (2001). Developing relationships between vocational rehabilitation agencies and employers. *Rehabilitation Counseling Bulletin*. 44(2), 95-103.
- Conway, George E. *Small Scale and School Culture: The Experience of Private Schools*. ERIC Digest, 1994. ERIC Clearinghouse on Rural Education and Small Schools. Charleston, WV.
- Fabian, E. S. (2007). Urban youth and development. *Rehabilitation Counseling Bulletin*, 50(3), 130-138. Retrieved from ERIC database.
- Fawcett, M., & Maycock, G. (2001). A quantitative assessment of gender and career decision making confidence levels of high school seniors in a school to work program using the career decision scale (Report No. CG 031 078). Winona State University. Retrieved from ERIC database.
- Gerber, P. J., Madaus, J. W., & Price, L. A. (2008). Adults with learning disabilities in the workforce: *lessons for secondary transition programs*. *Learning Disabilities Research and Practice*. 23(3), 148-153. Retrieved from ERIC database.

Gramlich, M., & Lueking, R. (2003). Quality based learning and post school success. *NCSET Issue Brief*, 2(2). Retrieved from ERIC database.

Gruver, M. (2008, October). Gathering forces. *Equipment World*. 24-25.

Lehr, C. A. (2004, April). Increasing School Completion: Learning from Research-Based Practices that Work. *Research to Practice Brief*. 3(3), 1-4. Retrieved from ERIC database.

Lippman, L., Whitney, C. (2009, April) A Developmental Perspective for High School Practitioners On College and Workplace Readiness. Research Brief. Publication #2009-23. Gale Document Number: A203662708

MacAllum, K., & Bozick, R. (2001, December). What happens after they graduate? Results from a longitudinal study of STC Graduates. Paper presented at the Association of Career and Technical Education Annual Conference, New Orleans, LA. Retrieved from ERIC database.

McFarlane, P., & Wilson, M. (1999, March-April). Welcoming teen workers. *Camping Magazine*, 72(2), 34-35. Retrieved from ERIC database.

Michigan Department of Education. (2006). Michigan Merit Curriculum. High School Graduation Requirements. Retrieved from <http://www.michigan.gov/documents/mde/New MMC one pager 11.15.06 183755 7.pdf>

Michigan Department of Education. (2008) State Aid and School Finance, Fiscal Year 2008 Foundation [Data File]. Retrieved from [http://www.michigan.gov/documents/cyfound\\_11728\\_7.pdf](http://www.michigan.gov/documents/cyfound_11728_7.pdf)

New Hampshire Department of Education. (1999). Practices in work based and school based learning for business and community partners. Concord, NH: Author. Retrieved from ERIC database.

Quint, J., Thompson, S. L., Bald, M. (2008). Relationships, Rigor, and Readiness. Strategies for Improving High Schools. (ERIC Document Reproduction Service No. ED502973). Retrieved from ERIC database.

Pluviose, David. "Beating the at-risk odds: family approach credited as key to Silas Craft Collegians Program's success." *Diverse Issues in Higher Education* 25.22 (2008): 14+. *General OneFile*. Web. 7 Dec. 2009.  
<[http://ezpolson.nmu.edu:5558/gtx/start.do?prodId=ITOF&userGroupName=lom\\_nmichu](http://ezpolson.nmu.edu:5558/gtx/start.do?prodId=ITOF&userGroupName=lom_nmichu)>.

Reese, S. Techniques: Connecting Education and Careers. (ERIC Document Reproduction Service No. ED720395). Retrieved from ERIC database.

Shakrani, S. (2008). A Big Idea: Smaller High Schools. (ERIC Document Reproduction Service No. ED502129). Retrieved from ERIC database.

Stern, D., Raby, M., Dayton, C. (1992). Career Academics: Partnerships for Reconstructed American High Schools. San Francisco: Jossey-Bass

Vitu, T. (2002, March 26). School-work link ends. Tucson Citizen. Retrieved from ERIC database.

Washington Department Of Education, Washington D.C. (1995). School-to-Work Outreach Project: 1995 Exemplary Models/Practices/Strategies. (ERIC Document Reproduction Service No. ED394062). Retrieved from ERIC database.

WestEd, & MPR Associates, Inc. (2002). California school-to-career: Helping students make better choices for their future. Final evaluation report. (ERIC Document Reproduction Service No. ED474218). Retrieved from ERIC database.