WORKFORCE DEVELOPMENT VIA TARGETED INDUSTRY TRAINING GRANTS AND OHIO TWO-YEAR COMMUNITY COLLEGES

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Abstract

Danette Johnson. WORKFORCE DEVELOPMENT VIA TARGETED INDUSTRY TRAINING GRANTS AND OHIO TWO-YEAR COMMUNITY COLLEGES. (Under Direction of Dr. Scott Watson) School of Education, March 2007. This study examined educational workforce development in Ohio between the years 1986 and 2005. Since the mid-1970s, Ohio industry has experienced plant closings, employee lay offs and economic workforce challenges as a result of the United States shifting from an industrial economy to a global economy. This quantitative study examined the nature and extent of utilization of Targeted Industry Training grants (TITGs) by businesses eligible for or receiving TITGs administered via community colleges. The sample for this study consisted of 89 Ohio businesses that were divided into the nine Enterprise Ohio regions. The researcher conducted a telephone survey with these businesses that asked five Likert-scaled questions relative to familiarity with TITGs, use of TITGs, satisfaction with TITGs, and the purpose for using TITGs. The results of the study showed that the majority of the survey respondents had not heard of or were not familiar with TITGs. This suggests that the community colleges, which are responsible for administering TITGs, may be relying on traditional approaches to workforce development and may lack a strategic development plan to more aggressively and effectively promote TITGs. A workforce development model that was based on literature and that addressed a philosophical approach was presented.

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For Jack, Kylene, Nicholas and Brianna. Thank you for your love, support and patience during these past gruelling months.

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CHAPTER 1

Introduction to the Study

Throughout the centuries, educators, critics, and statesmen have argued over what the primary purpose of education, particularly the role that institutions of higher learning play in workforce and professional training. By the late 1800s, the growth of scientific knowledge, a greater concern for social conditions and subsequent development of the social science disciplines led to arguments that instructors of higher learning should be responsive to the needs of business and industry (Lucas, 1994, p. 310).

Much has changed in higher education since that time. In the early twentieth century community colleges (also called junior colleges) were established to provide opportunities for individuals who otherwise would have not had access higher education (Phillippe & Patton, 2000). This early mission of access, while still at the core of today's comprehensive community colleges, has given way to a focus on workforce preparedness. In today's climate of plant closing, layoffs, technological change, and other challenges to the economy, much of the current workforce will have to be re-trained. Community colleges have expanded their missions to address growing workforce, economic, and community needs and have partnered with businesses and employers to accomplish their goals.

In Northwest Ohio in particular, there have been a number of severe economic challenges. It has been proposed that these challenges have been the result of the state's slowness to move from an industrial economy (i.e., industry and manufacturing) to a more nationally and globally competitive service/technological economy (*The State of Poverty in Ohio- 2004*, 2005). State and local policymakers in Ohio, as elsewhere in the

country, are faced with some enormous challenges as U.S. companies continue to outsource record numbers of jobs to foreign countries. The need to attract new business and retain existing business has resulted in a fiercely competitive environment where bidding wars for new enterprises do not always equate to success stories for the communities involved.

Community colleges in the State of Ohio have been charged with the task of providing training to assist companies in making the transition from an industrial and manufacturing economy to one that is more nationally and globally oriented. Along with federal workforce initiatives, such as the Personal Responsibility and Work Opportunities Reconciliation Act of 1996 (P.L. 104-193), and state initiatives like the Ohio Investment Training Program (OITP), which provides financial assistance and technical resources for customized training involving employees of new and expanding Ohio businesses, community colleges have received Targeted Industry Training grants (TITGs). These are available through the Enterprise Ohio Network, a state-wide association of 54 public two-year colleges and university branch campuses which, since 1986, have partnered with businesses to accomplish their goals (Ohio Board of Regents, 2006).

TITGs may cover up to 75 percent of the training costs (up to $50,000) for eligible companies with 100 employees or less; larger companies may be entitled to receive up to 50 percent reimbursement for training costs. Many companies may be eligible for Ohio's TITGs (Tressler, 2004). According to Tressler (2004), “These services help employers enhance competitiveness, develop new business, comply with governmental regulations and retain employees” (p. 2). However, to date, there have been no published investigations as to the efficacy of these TITG initiatives in peer-

reviewed literature. Therefore, the focus of this study was on the extent of utilization of TITGs by businesses eligible for or receiving TITGs administered via community colleges.

Women comprise 46 percent and men 54 percent of the Ohio workforce today; further, Ohio is seventh in the nation in terms of gross state product. The state's goods-producing industries are slightly higher (at 25 percent) and its service-producing industries are slightly lower (at 75 percent) than those of the U.S. (20 percent goods and 80 percent services) (Slonaker, Wendt, & Williams, 2003). Local and state government employment is slightly less than the national average (approximately 5.5% percent of total unemployment in Ohio compared to the national average of 4.7% percent (Ohio Bureau of Employment Services, 2006; U.S. Department of Labor, 2006).

The State of Ohio has established a number of initiatives aimed at workforce development. One initiative that is aimed at creating and retaining jobs within Ohio, training and educating Ohio's workforce, and supporting new and expanding Ohio businesses program is the Ohio Investment in Training Program (OITP). Emphasis is on manufacturing and selected employment sectors that have significant training and capital investment related to creating and retaining jobs. OITP grants support up to 50 percent of instructional costs, materials, and training-related activities may be provided. In fiscal year 2004, more than 39,500 incumbent workers were trained through this program (State of Ohio Department of Development, 2006).

The Enterprise Ohio Network was established in 1986 as a framework in which to bring Ohio's public two-year community and technical colleges and university branch campuses together to better serve Ohio companies by partnering with companies to

profile jobs, assess skill requirements, screen new hires, and deliver training that supports business success; and helping employers build teams, reduce scrap, decrease machine down time, improve cycle times, increase output, improve customer satisfaction (Enterprise Ohio Network, 2003). The organization reports that it is "a state wide quality and productivity improvement resource available to all Ohio businesses seeking to improve their selection, development and retention of talented people" (para. 1).

Today, the Enterprise Ohio Network (EON) is a statewide consortium comprised of 54 public two-year colleges and university branch campuses. These two-year community colleges partner with businesses, organizations, and public service agencies to provide real-world experiences and opportunities in the workplace. But does the EON meet the needs for retraining? To what extent are those who are provided real-world experiences and opportunities utilized by eligible businesses.

While it is true that TITGs are currently available to eligible companies through the state-wide network of Enterprise Ohio Network collegiate campuses, to what extent are they used? TITGs may cover up to 75 percent of the training costs for eligible companies with 100 employees or less; larger companies may be entitled to receive up to 50 percent reimbursement for training costs (Enterprise Ohio Network, 2003).

Weber (2002) pointed out that "The political and legal environment in which economic development takes place resembles an auction in which a firm sells promises of jobs, income, and taxes to multiple cities and states bidding for these commodities (p. 42). Local governments compete with one another, seeking to maximize their reputations, revenues, and jobs" (p. 43). In reality, though, any initiative that requires the expenditure of taxpayer resources must be able to justify its existence. Poorly

administered and ill-considered job development programs can end up costing municipalities far more than they receive in return. Therefore, workforce development programs must be able to justify the expenditure of public funds by demonstrating that the money was a good investment.

There is little known about whether the TITGs are money well spent, which led to the purpose of this study. While the Enterprise Ohio Network is powerful and well-funded in terms of providing training for employees, there is no information available on how TITGs are used. This merited exploration.

Purpose of Study

The Enterprise Ohio Network is a powerful business and industry tool with the needed funds to provide training for employees. However, little is known about the extent of utilization of TITG funds. Therefore, the purpose of this study was twofold: (a) to determine whether TITG programs are utilized by eligible businesses; and (b) to ascertain the purpose for which TITGs are used.

Study Objective

Based on the information gathered in this study, a model will be developed to improve dissemination and usefulness of similar training opportunities in other localities.

Research Questions

The following research questions guided this study:

1. To what extent are TITG programs utilized by eligible businesses?
2. For what purpose are TITG programs utilized?

Importance of Study

In 2002 the Education Commission of the States conducted a national survey on workforce development in the community college in which community colleges from 45 states participated. The survey found that (a) 21 states provided special funding to community colleges to train workers for high-demand occupations; (b) the type of funding varied, ranging from under $1 million to $45 million; (c) 18 states provided state funds, in addition to federal funds, to support occupational training of disadvantaged students by community colleges, (d) 32 states provided state funding to support customized training for employers; (e) at least eight states required matching funding from the employers served; (f) 20 states funded non-credit occupational training (apart from customized training for employers) at community colleges; and (g) 17 states provided special funding to help community colleges purchase, maintain, or replace computers and other equipment for workforce training (Jenkins & Boswell, 2002).

Donlevy (2001) noted that there is increasing recognition that effective workforce development programs designed to prepare young Americans for the workforce are worthy of support, encouragement and replication, particularly those initiatives that are intended to address the knowledge and skills gaps of young people at-risk of school and work failure. Enthusiasm for such programs has been generated in part from reports from educators, employers, and policy-makers that youth were ill prepared to take on the new, high-tech jobs of the twenty-first century" (Huerta-Macias, 2002).

This study is important because it went beyond describing the extent of workforce development programs; rather, it determined whether a particular workforce development program (TITG) is used and for what purposes. It was anticipated that this study would

have implications for promoting TITGs in an effort to counter Ohio's current sluggish economy. Each community college, with funding from the Enterprise Ohio Network, can work collaboratively to devise a cohesive mission to work in concert with one another to formulate a viable plan to develop a competitive and knowledgeable workforce that can have a positive impact on Ohio's economy as a whole and on Ohio's businesses in particular.

Rationale

To some degree Ohio maintains some of the qualities that fuelled its economic engine 30 years ago. The dilemma is that the national and international economies have changed, and education and workforce training have not kept up with the advanced technologies that are key drivers in most U.S. industries. Large manufacturers are transforming from vertically integrated operators attached to specific production sites (as in Ohio) to orchestrators of worldwide supply chains. Job growth is greatest for highly skilled and trained service sector workers, while manufacturing jobs continue to disappear in Ohio. For Ohio's economy to overcome its current challenges, workforce development is the key to moving the State of Ohio away from an industrial age and to becoming a state that embraces and prepares for globalization through education and workforce development.

Methodology

To fulfil the purpose of this study, to determine whether TITG programs are utilized by eligible businesses and the purpose for which TITGs are used, this study used a quantitative design. The researcher conducted a review of the literature on workforce

development. A variety of sources were consulted to develop the statistical and industry data for this study, including Questia, EBSCO, public and university libraries, textbooks, and Web sites.

The researcher designed a survey questionnaire that was utilized in a telephone survey of 89 Ohio businesses to determine their knowledge about and utilization of TITGs. Based on the results of the telephone surveys, the research questions were answered and the answers were summarized (see Chapter IV). A more complete description of the methodology employed for this study is in Chapter III.

Definition of Terms

Several common terms and designations have a special meaning and purpose in the present investigative research. To convey the meaning assigned to them in this study, these terms may now be defined as follows:

Contracted Services: This designation is defined in general as provisions that are designed to meet the needs of business and industry and serve to signify an agreement between two or more parties. In this study, this term refers to an agreement between TITG administration and eligible businesses (contract training within community colleges) to utilize TITG programs.

Enterprise Ohio Network: a state wide consortium of 54 public two-year colleges and university branch campuses that partner with businesses, organizations and public service agencies to provide real-world experiences and opportunities in the workplace. The goals of Enterprise Ohio Network (EON) using two-year colleges and university branch campuses are to retain and retrain employees and attract new business to the State of Ohio, a state that has endured hard economic times due to plant shutdowns and

business and industry migrating to other states or countries, resulting in many displaced, unemployed workers. The EON administers the TITG program which is funded by the state and decides which businesses meet the eligibility criteria for partnering activities. The school facilities actually engage in the training.

Ohio Investment Training Program (OITP): a state workforce development initiative that provides financial assistance and technical resources for customized training involving employees of new and expanding Ohio businesses. OITP provides up to 50 percent reimbursement to fund instructional costs, materials and training-related activities. There is an emphasis on manufacturing and selected employment sectors that have significant training and capital investment related to creating and retaining jobs. In addition, OITP supports community economic development efforts through job creation and retention.

Targeted Industries Training Grants (TITGs): This designation refers to grants available through the Enterprise Ohio Network from the state that may cover up to 75 percent of the training costs (up to $50,000) for eligible companies and organizations with 100 employees or less.

Work Incentive Program (WIN): enacted as part of the Social Security Amendments of 1967 and provides Aid to Families with Dependent Children (AFDC) recipients with activities intended to help them become self-sufficient. Unless exempt, recipients must register for work and training as a condition of eligibility (Hansan & Morris, 1999).

Workforce Development: formal education and training programs for participants or those who wish to participate in the workforce, that are designed to enhance the skills of people to gain or maintain socio-economic status (Katsinas, 1994).

Workforce Development System: "a broad range of employment and training services and programs whose purpose is to enable job seekers and students to access a wide range of services and information about jobs, the labor market, careers, job placement, education and skills training, financing options, skills standards or certification requirements, and supportive services (Pindus et al., 2002, p. 2).

Overview of Study

Chapter I introduced the purpose of the study, the research questions, the importance and rationale of the study, and operationally defined terms that are unique to this study. Chapter II will present a comprehensive review of the related literature. Chapter III details the methodology of the study. Included in this portion is an explanation of the sample, the test instrument, and method of data collection. In Chapter IV, a discussion of responses will be provided and results noted, followed by answers to research questions.

Chapter V concludes the research study. Recommendations are also provided. These are based on the study's findings and conclusions and focus on future research.

CHAPTER 2

Review of Related Literature

Workforce Development Initiatives

Katsinas (1994) defined workforce development as "… formal education and training programs for participants or those who wish to participate in the workforce, that are designed to enhance the skills of people to gain or maintain socio-economic status (p. 26). As the definition implies, workforce development requires a variety of educational and training programs. A number of such programs have been initiated at the federal, state, and local levels.

The federal government first began to seriously participate in worker training with the passage of the Comprehensive Employment and Training Act of 1973 (CETA) (Hansan & Morris, 1999). CETA was intended as a type of poverty relief program and was substantively different from the Work Incentive Program (WIN), enacted as part of the Social Security Amendments of 1967 and targeted at current welfare recipients. CETA involved the creation of public jobs as well as the provision of training, as noted by Hansan and Morris (1999): "Two provisions of the act declared that CETA's approach was to provide 'job training and employment opportunities' and 'manpower services' (i.e., job placement assistance) for 'economically disadvantaged, unemployed, and underemployed persons'" (p. 105). Thus, the primary goals of CETA were designed to assist workers who were in need, rather than enacting a national policy of workforce development. From 1977 to 1978, CETA was responsible for placing more than one million American workers in public-sector jobs and provided training to an additional 1.3 million (Hansan & Morris, 1999, p. 105).

In 1982, CETA was replaced by the Jobs Training Partnership Act 97, P.L. 300 (JTPA). JTPA was specifically targeted at clearly defined categories of disadvantaged adults and young people. It was the intent of the JTPA to revise CETA in a number of fundamental ways. For example, JTPA was not a program for the creation of public-sector jobs; rather, it was an initiative intended to help place disadvantaged workers into private-sector jobs (Hansan & Morris, 1999, p. 105). The administration of the program would be turned largely over to states and private industry, organized into private industry councils (PICs), or councils of local government and industry representatives. The PIC chair and 51 percent of the PIC membership were to work with local officials to allocate grant money to service providers and to agree on plans for the implementation of training programs in the area, subject to approval by the governor. The overall effect of these administrative changes was intended to transfer control over training programs from the Federal Department of Labor into non-governmental hands (Hansan & Morris, 1999, p. 106).

Beyond these goals, JTPA also attempted to impose some requirements of efficiency into the systems. For example, new provisions established restrictions on the amounts that could be expended on administration (15 percent of total expenditures) and services that were not directly related to training. Performance standards that were based on job placement and wages were established for all programs; however, states that were confronted with out-of-the-ordinary types of barriers to participation, for instance, those states with large rural areas whose residents required transportation assistance, could file requests for waivers from expenditure caps (Hansan & Morris, 1999). In many cases, though, states elected not to take advantage of the waiver opportunities because of

adverse consequences to performance outcomes.

An early congressional review of JTPA programs in 1984 warned of factors that would diminish their effectiveness. In practice, either PICs or local governments frequently ended up as both grant recipient and grant administrator. Another pattern was the creation of private non-profit entities, designed to act as administrative entities, an approach calculated to lend programs credibility in the eyes of a local business community (Hansan & Morris, 1999, p. 106).

Not surprisingly, training under this initiative tended to emphasize on-the-job training. This tendency, combined with a funding system based on reimbursement of costs in proportion to successful job placements, had two interesting effects on job training:

1. On-the-job training and private employment and training practices in general are based on "creaming" (i.e., the careful selection of a population of those most likely to succeed out of a larger pool of "applicants"). Consequently, JTPA programs became, in reality, programs for skimming the most easily trained persons out of the population of the disadvantaged, a tendency that was naturally reinforced by short-term measures of performance (Hansan & Morris, 1999, p. 107).

2. The requirement that the training entities front the costs of the programs cut out many community colleges and other public education institutions, which could rarely afford to absorb such financial risk. Short-term placement goals also discouraged focus on education and long-term training, which created an added pressure moving JTPA programs away from traditional avenues of vocational education. Adult basic education and high-school equivalency training languished under this approach (Hansan & Morris,

1999, p. 107).

The JTPA was subsequently amended in 1989 so that that the commitment to basic and applied skills was strengthened, with the ultimate objective of increasing employability. This goal was reinforced by subsequent legislation (Chisman, 1990, cited by Huerta-Macias, 2002). Thereafter, these changes were followed by the Job Opportunities and Basic Skills (JOBS) Training Program, established by the Department of Health and Human Services in 1988 as part of the Family Support Act (Huerta-Macias, 2002, p. 12). The goal of this program was to reduce the number of welfare recipients by improving their employability through the provision of basic literacy services and job placement assistance. This legislation also added the JOBS program as an education and training component to Aid to Families with Dependent Children (AFDC). The AFDC/JOBS programs provided support through welfare payments for individuals who were unable to find work or whose income fell below a certain level. AFDC payments could continue for an unlimited amount of time, and there were few work requirements attached (Huerta-Macias, 2002, p. 12).

In 1988 the Adult Education Act (AEA), enacted in 1966 to provide grants for the improvement of adult literacy, was reauthorized and injected with new programs that specifically stated that the purpose of literacy was to improve employment skills and assist individuals with limited English proficiency to integrate into society (Chisman, 1990, cited by Huerta-Macias, 2002, p. 11). The National Workplace Literacy Program (NWLP) was one of the programs authorized under Section 371 of the Adult Education Act at this time. The goal of this program was to upgrade the literacy and basic skills training of the workforce for the purpose of improving job performance. The services

provided to adult learners under the NWLP could include adult basic education, adult secondary education, ESL classes, upgrading of skills to meet changes in workplace requirements, and support services such as transportation and childcare (Huerta-Macias, 1999, p. 12). The NWLP was not reauthorized for funding after 1995; however, it stood out as being unique among federal programs because of its strong record of providing services to Hispanics (Huerta-Macias, 1999, p. 12).

The term community college" popularized by Jesse Bogue in the 1950s (Cohen & Brawer, 1996), indicates:

> To some degree, the nation and scope of these two-year post secondary schools, unlike: the academic institutions of the past, that were construed as the proverbial ivory towers of academia, community college are uniquely poised to go far beyond the traditional roles of post-secondary schools and become the nexus of a community learning system, relating organizations with educational functions into a complex sufficient to respond to the populations learning needs (Glazer, 1980, cited by Cohen & Brawer, 1196, p. 10).

Several community colleges began as extensions of local high schools, created as early as the 1920s for continued training and career preparation beyond high school. some of these institutions continue to function as part of public school districts. Previous researchers have concluded that K-16 system collaborations have become more prevalent over the last decade, during which "various types of collaborative arrangements between schools and colleges have proliferated" (Townsend & Twombly, 2001, p.103). More significantly, perhaps, these studies emphasized the transition-related collaborations that were supposed to improve minority and low-income students' access to higher education,

and not other types, such as school-to-work transition programs, that have also become prevalent in more recent years (Townsend & Twombly, 2001, p. 103).

By the end of the 1960s, comprehensive plans specifically detailing college development and support were in place or imminent in 19 states, while legislation providing generalized guidelines had been passed in several others (Hurlbert, 1969, cited by Townsend & Twombly, 2001). The state plans typically described organized systems, including the ways in which the colleges would be funded, and pointed out what separate communities had to do to develop their own institutions. One of the main arguments in favor of state planning was the recognition of the states' responsibility for equalizing the financing of community colleges so that students from low-income districts would be less disadvantaged. Another was the realization that for the community college to be a player within a higher-education system, some guidelines for curriculum, student access, and professional standards had to be established. The imminence of federal funding and regulation was also recognized, and it was also contended that the requirements and opportunities set down by the federal government could be realized only through statewide coordination (Townsend & Twombly, 2001, p. 11).

The plans were supported with the reasoning that the idea of providing equal opportunity for all of the state's residents and a sense of the importance of preparing them to take their place within the state's workforce was a worthwhile goal. The plans generally included a goal of ensuring access for the widest number of the state's population, together with the characteristics of the community colleges that would serve both pre-baccalaureate and occupational candidates. Generally speaking, while the plans might have referred to concepts such as "remedial" and "general education," those terms

were not operationalized, and it was left up to those who were to administer the programs how they would be interpreted (Townsend & Twombly, 2001). Townsend and Twombly provided this example:

> In some instances the state plans stated specifically that the community colleges were to serve commuters, with the institutions cautioned not to build residence halls; however, this expectation was not universal, and residence halls were developed in many states where students were attracted from distant locations (Townsend & Twombly, 2001, p. 11).

Equitable access throughout a given state was facilitated by plans that indicated districts or regions where community colleges would be developed. Townsend and Twombly (2001) reported that these plans had the goal that "95 percent of the population would be within reasonable commuting distance of a junior college" (p.11). To help ensure that communities built colleges only where there were sufficient numbers of potential students, many state plans specified minimum enrollment expectations: 300 in Massachusetts; 400 in Virginia; 500 in New Hampshire and Texas; 600 in Colorado; 1,000 in Illinois, Michigan, and Ohio. However, maximum enrollments were not specified in most cases, but admission was frequently reported as being open for everyone, including high school dropouts (Townsend & Twombly, 2001, p. 11).

Two-Year Colleges and Their Role in Workforce Development

Unlike traditional academic programs, continuing education or professional development classes tend to have short-term goals designed to provide students with the skills, knowledge and dispositions to become competitive for a particular position, improve one's skills, or improve one's ability to advance in the workplace. This type of

training and development expanded exponentially in the 1970s when community colleges exploded onto the academic scene--first through university extension services and then though community colleges offering non-credit training classes traditionally offered through public and vocational schools.

Community colleges are eminently equipped to provide adult and continuing education classes and training because of their ability to coordinate planning with other community agencies, their interest and participatory learning experiences, the wide range of ages and life circumstances that are represented in the student body, and their alternative instructional approaches to make learning accessible to various community groups (Myran, 1969). According to Myran (1969), "community colleges could be vital participants in the total renewal process of a community… dedicated to the continual growth and development of its citizens and its social institutions and economic livelihood (p. 5). Doucette (1993) noted that , "Nearly all community colleges have accepted workforce training for employees of business, industry, labor in government as a legitimate mission, generally as an extension of their long-standing career preparation, community education, and community service missions" (p.3). Cornish (2005) argued that the community college is in the position of avoid the "ivory tower" trappings of traditional four-year colleges and universities and can truly work with and for the community to develop scholarly engagement that could provide local area citizens with the education, training, retraining, and professional development necessary to keep or make a community competitive-not just today but into the future.

In 1988, American Association of Community and Junior Colleges (AACJC) sponsored the Commission on the Future of Community Colleges and concluded that

community colleges can take the lead in long-range planning for community development. Community colleges can be the focal point for problem solving, adult literacy, leadership training, the place where education and business leaders meet to talk about the problems of displaced workers, and can bring together agencies to strengthen services for minorities, working women, single-parent head of households, and unwed teenage mothers. Nearly a decade later Cohen and Brawer (1996) concurred: "Community education, the list of all community college functions, embraces adult and community education, along with numerous other services to the local community" (p. 225).

Thus, workforce development via two-year colleges holds promise as a vital tool to assist local communities in responding effectively to their unique situations. Two-year colleges, with their open-access policies, have become a key educational alternative for providing the dual educational goals of access and mobility. According to Townsend and Twombly (2001), two-year colleges

> "are most equipped to offer high-risk youth avenues for earning a two - year college degree or transferring to a four- year degree program. Many poor, minority, immigrant, and disabled students have difficulty in making the transition from high school graduation to gainful employment (p. 107).

Almost half a century ago, two-year colleges in Ohio consisted of a total of 22 branches maintained by the five public universities and no public junior colleges. In a report published in 1954, Professor D. H. Eikenberry of Ohio State University noted:

> With 54 colleges and universities serving a total population of eight million the belief has been strong among educators and laymen alike that educational

> opportunities on the post-high-school level are adequately provided for and that, consequently, there is no need for public junior colleges (Medsker, 1960, p. 260).

However, Professor Eikenberry cited evidence that Ohio's needs in higher education were not being fully met and pointed out that the state ranked twenty-third with respect to the percentage of persons eighteen to nineteen years of age attending school in 1950 and fourteenth with respect to the number of persons per ten thousand of the population attending college in 1949-50. In both of these rankings, Eikenberry reported that the states that measured above Ohio were in most cases states where public junior colleges had been developed. Eikenberry also showed that there was a great variation among counties with respect to college attendance and that the lowest 22 counties did not contain an institution of higher education of any kind (Medsker, 1960). Eikenberry also cited studies that indicated that although approximately one-half of all seniors in Ohio high schools had the desire to pursue their education for at least two years beyond high school, distance from higher institutions and economic circumstances made it impossible for many to do so (Medsker, 1960).

During the early 1950s certain Ohio communities and public school superintendents became interested in establishing junior colleges as a part of the state's system of public education. Enabling legislation was introduced into several sessions of the state's General Assembly; however, none of these bills passed. At the same time, the universities in Ohio began to establish branches in communities without college facilities. By 1958-59 the five public universities were maintaining branches in 22 communities. The work offered by these branches was the same as that offered on the main campuses and included upper-division and graduate courses as well as the standard lower-division

program in certain fields—very few non-credit workforce development programs existed. Classes were available only during late afternoon and evening hours or on Saturdays (Medsker, 1960, p. 260).

The issue of adequate college facilities in Ohio became a matter of overall concern to the Ohio College Association, which in 1955 made arrangements to conduct a study of the problem. Dr. John Dale Russell, then of New Mexico, was engaged to conduct the study, and his report entitled, *Meeting Ohio's Needs in Higher Education*, published in April, 1956, was formulated following his analysis of the variation among the Ohio counties in the rate of college production. At that time, Russell reported his agreement with the opinion expressed by the great majority of the people he interviewed in Ohio to the effect that there was "immediate and urgent need for the establishment in Ohio of many more centers where higher education might be available in an organization that might well be described as a community college." He continued by enumerating the different possible patterns of control for such two-year colleges and the advantages and disadvantages of each pattern; these recommendations included developing a system of junior colleges under the auspices of the public school system with state aid and coordinated through a community college council as an adjunct to the state board of education (Medsker, 1960, p. 260).

In response to the Russell Report, the Ohio College Association requested the Governor to create a body known as the “Ohio Commission on Education beyond High School”; the commission's report appeared late in 1958 and investigated the two-year college issues at length. Among the recommendations in the report were the following:

1. Branches of existing colleges and universities should be established as and

where justified by local need and support, in order to provide additional students with the opportunity to live at home while extending their education beyond high school. These branch programs should receive similar financial support to that approved for two-year terminal colleges and technical institutes (Medsker, 1960, p. 262).

2. The General Assembly should enact permissive legislation so that two-year colleges or two-year technical institutes financed by the State, by local funds, and by student fees might be established either as branches or as separate institutions (Medsker, 1960, p. 262).

3. Two-year terminal programs with state support should be established and operated with a board of nine trustees, three appointed by the governor and confirmed by the Senate, and six appointed by some locally elected body or bodies.

3. Capital outlays at each two-year institution should be financed one half by taxing area and one half by state, and operations should be financed one third by taxing area, one third by fees, and one third by the state (Medsker, 1960).

The State of Ohio joined a number of other states in the late 1960s in reassessing its two-year college program; at this time, the states made adjustments to their goals and the number of two-year colleges they would fund. Some of these initiatives were in response to the federal Higher Education Act of 1965 that mandated the states to create higher-education coordinating commissions if they wished to qualify for various federal aid programs. State master plans for community college development continued evolving (Townsend & Twombly, 2001, p. 11).

By the 1980s, there was a general consensus among the states that two-year colleges were a viable approach to providing workforce development training,

particularly in those areas of the state that were poorly served by traditional colleges and universities. While most states failed to adopt any substantive changes during this decade, some states, such as Ohio, took the initiative, as noted by Townsend and Twombly (2001):

> Most of the commissions stated the major functions of the community colleges but left to the institutions the magnitude of emphasis that they would place on one function or another. Nonetheless, some states recommended strongly that the community colleges be involved with economic development. As an example, in its 1982 Master Plan for Higher Education in Ohio, the state board of regents suggested that two-year colleges become partners in local efforts at economic revitalization, establish adult learning programs related to employment, and contract for training employees of local businesses. (p.15).

Contract training within community colleges is an essential component of the Enterprise Ohio Network. Prior to the Enterprise Ohio Network, community colleges relied upon numerous federal programs that have funded community college efforts to retrain displaced workers. Typically, federal funds were garnered through participation in the Manpower Development Training act of 1962, CETA, and JTPA. The goals of Enterprise Ohio Network using the community college and university branch campuses are to retrain and retrain employees and attract new business to the State of Ohio, a state that has endured hard economic times because of many displaced, unemployed workers. Through the TITG grant program funded by the state training and retraining can be achieved. Consequently, contract training within community colleges is poised to become a significant contributor to the economic development in Ohio in an effort to retain

business and industry as well as attract new business and industry as the result of improved workforce skills.

Training and Professional Development

The word retraining can be heard in corporate boardrooms and in congressional hearings. In 1983 the issue of retraining became a top priority of the nation's leaders. Terms such as high-technology training, retraining, and training for displaced workers became key phrases in the 98th Congress (Miller, 1989). Despite this increasingly widespread usage, Miller (1989) contended that the term "retraining" does not provide for a clear and consistent definition and offered this perspective:

> Retraining refers to training that leads a worker to a significantly different job or career. A person who previously worked as an assembler in a factory must retrain to make the transition into computer programming. The old role is radically different from the new role…and the transition requires extensive training in technical skills as well as adjusting to a very different working environment. The assembler moves from the plant floor to an office and from blue-collar work to a white-collar profession (Miller, 1989, p. 6).

In many cases, retraining is associated with a complete change of career; however, in some cases the skills that are required to perform a job change so radically that individuals must retrain even though they may remain within the same career field. For instance, the term retraining could apply to programs for preparing traditional quality inspectors to undertake statistical methods of quality control. Under the old process, the inspector's role involved identifying and discarding work that did not meet specifications. The new role requires identifying the variable in the production process that accounts for

the defects in the product. The nature of an inspector's role changes with the statistical method, and inspectors usually must return to the classroom for extensive course work covering such topics as experimental design, statistics, and engineering economics. Not only does the new role require the acquisition of technical knowledge, but it also requires a new cooperative relationship between the quality engineer and other people involved in the production process. The quality inspector becomes a problem-solver rather than a watchdog. Certainly such major changes fall within the definition of retraining in spite of the lack of change in career path (Miller, 1989, p. 6).

The term retraining appeared frequently in the popular media and repeatedly in negotiated labor contracts. For example, in GM-UAW labor agreements, General Motors committed to investing as much as $1 billion over six years to retrain, transfer, or otherwise support workers threatened by automation (Miller, 1989). A job security provision of the 1986 settlement between AT&T and the Communications Workers of America involved a major commitment to the establishment of retraining programs (Miller, 1989).

Compared to training programs, retraining programs are aimed at helping employees make major transitions. Employees are required not only to learn new skills but also to be resocialized. New attitudes, values, and assumptions are required about the relationship between the individual and work (Miller. 1989, p. 6). Because these transitions generally encompass much more than the simple acquisition of a new skill or method for performing a job, retraining programs are unique. Retraining is frequently more stressful than regular training and program planners need to be sensitive to the exceptional pressures that accompany the process.

Unlike more limited skill training, retraining affects many aspects of the trainees' work roles and, indeed, their whole lives. *Trainers and managers concerned with retraining programs must find a way to help trainees cope with these changes*" (emphasis added) (Miller, 1989, p. 6).

Employers invest nearly $30 billion annually in employee training and retraining (Heumann, 2005). Because community colleges have experts available to provide technical training or to develop technical training programs at low cost, community colleges can provide training more cost effectively than many other public and private sector organizations (Hirshberg, 1991). These colleges offer a great value to businesses since most of their credit and non-credit offerings cost 10 to 20% less than comparable programs offered through the private sector. According to Cohen (1995), community-college instruction costs about one-half that of four-year colleges.

An important aspect of training and retraining offered by community colleges is contracted services. Contracted services refer to instruction that is designed to meet the needs of business and industry. Typically, this training falls into three categories: training for the employees, training for public agency employees, and training for individuals on welfare. Nearly all community colleges today offer contracted continuing education and professional development training in an effort to provide workforce development opportunities to develop a skilled community workforce, improve employee productivity, reduce waste, and increase profits (Gitell, Gross, & Newman, 1985).

In light of the economic climate that exists in Ohio today, workforce development through contracted services offered by two-year colleges can be a key element in

improving the Ohio business environment. This is discussed in more detail in the section that follows.

Business Climate in Ohio Today

The report, *The State of Poverty in Ohio – 2004* made the following statement about the economy in Ohio:

> Like the rest of the United States, Ohio benefited from eight years of a growing economy during most of the 1990's. This was the longest economic expansion that the United States has ever experienced. The income of an average Ohio taxpayer rose 10.3% between 1989 and 2000 (*The State of Poverty in Ohio- 2004*, 2005, p 5.).

The state experienced much-needed growth in both jobs and earnings, which had an anti-poverty impact in Ohio during most of this decade. However, this growth was unevenly distributed among the state's residents. In some counties and municipalities that were already affluent, income levels increased dramatically. At the same time, incomes fell during a record economic growth period in most of Ohio's low income districts and in a large majority of Ohio's large cities. Middle-income sections of the state experienced income stability or some modest income growth. According to the *State of Poverty in Ohio- 2004* (2005) report, "During the best economic growth period ever measured, Ohio's rich got richer, but its poor got poorer. A rising tide did not lift all boats" (p. 2).

Ohio and Recession

The top ten counties in Ohio as a percentage of the state's population are listed in Table 1.

Table 1

Top Ten Ohio Counties as a Percent of State Population

COUNTY	POPULATION
CUYAHOGA	1,393,978
FRANKLIN	1,068,978
HAMILTON	845,303
MONTGOMERY	559,062
SUMMIT	542,899
LUCAS	455,054
STARK	378,098
BUTLER	332,807
LORAIN	284,664
MAHONING	257,555

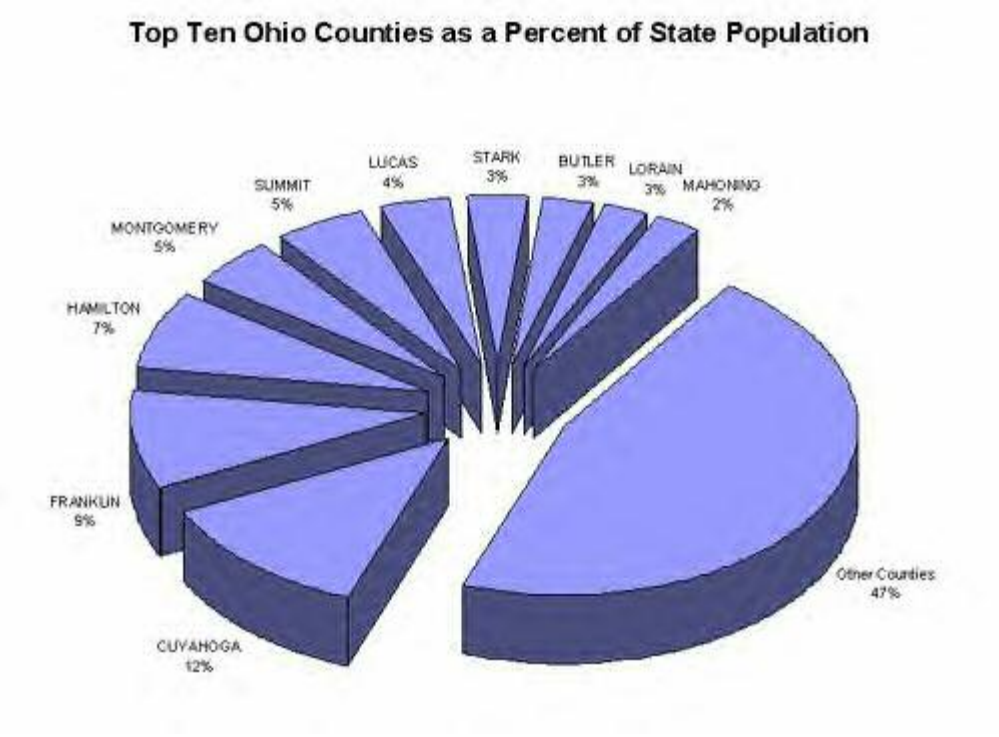

Figure 1. Top Ten Ohio Counties as a Percent of State Population

Source: Ohio Department of Development's Office of Strategic Research (2005), County Trends, p. 3.

Economic expansion slowed nationwide in the United States and in Ohio in March 2001. Ohio was most prominent in the recession throughout 2001, and the state largely remained in recession during early 2004. The majority of those parts of Ohio that were previously in recession during several months of 2000 found that all but five Ohio counties were losing employment by mid-2001; these job losses got worse through the most recently available data in mid-2003. More than 233,000 Ohio workers lost their jobs. Not surprisingly, the loss of hundreds of thousands of jobs in the state quickly caused incomes to decline in households across Ohio (*The State of Poverty - 2004*, 2005, p. 2). Incomes fell most sharply during the 2001-2004 recession in affluent areas of Ohio, reversing a pattern seen during the 1990's when low-income areas suffered from

Ohio's most rapid income declines. As incomes fell among Ohio's affluent during the recession, incomes continued to fall in Ohio's low-income communities (*The State of Poverty - 2004*, 2005, p. 2).

The 2000 census measured a decline in Ohio's poverty rate to 10.6% of Ohio's residents, in comparison to a comparable 12.5% rate found by the 1990 census; nevertheless, this report finds that the census poverty figures contained a large undercount (*The State of Poverty - 2004*, 2005, p. 2). The census figures significantly underestimated poverty in Ohio when the census was taken. In addition, the current recession started after the census was conducted. Therefore, none of the jobs, paychecks, and income losses caused by the current recession were measured by the 2000 census.

Level of Poverty in Ohio

Poverty in Ohio, as it is throughout the continental United States, is federally defined as incomes that fall below official Federal poverty standards. For a typical family of three, Ohio families are poor if their current annual income falls below $15,260 (*The State of Poverty - 2004*, 2005, p. 2). In 1995 the Ohio poverty rate was 14.06%, with 1,616,239 persons below the poverty level compared to the 12.7% poverty rate of the United States. The Ohio poverty rates for blacks are three times higher than whites and the rate does not change when household composition and education are taken into account (*The State of Poverty - 2004*, 2005, p. 8). Poverty has certainly risen significantly in Ohio during 2001, 2002 and 2003, and it continued to rise during early 2004. None of this increasing poverty is measured by 2000 census data, which are now obsolete (*The State of Poverty - 2004*, 2005, p. 2).

High poverty rates have been linked to low levels of educational and training attainment. Low levels of formal education have been linked to employment in low wage earning jobs. Low wages have been linked to subsistence living. As can be seen, the links create a cycle from poverty to poverty.

When poverty rates are related to levels of educational attainment, one is made aware of some interesting information. Most obvious is the fact that the poverty rates of high school dropouts are three times higher than the poverty rate among high school graduates. Less obvious is the fact that the poverty rates for men and women at different levels of educational attainment show a gap that narrows as people go up the educational ladder. In 1994 the poverty rate for men 25 to 54 years of age who did not finish high school was 27% and 38% for women of similar age who never finished high school. The poverty gap narrows when men and women of the same age have both finished high school. The poverty gap is very small between men and women of similar age who are college graduates. The results show that the higher the level of educational attainment, the differences between the incomes of men and women (O'Hare, 1996) and between races (Darby, 1996) are significantly decreased.

Thus, poverty and education and training, or lack thereof, go hand-in-hand. The obvious way to end poverty in any family is for a worker in that family to get and hold a job that pays earnings sufficient to exceed the poverty income standard. A full time year-round job must pay at least $7.34 per hour to reach this level, a figure 43% higher than the current minimum wage (*The State of Poverty - 2004*, 2005, p. 3). Heuman (2005) proposed that

Successful workforce development can reduce poverty, make small local

> businesses more competitive, create a higher tax base, and increase the amount of private wealth residents can invest in their community….local community involvement in the design and implementation of their own workforce training programs can also cultivate new and better grassroots leadership, help form stronger neighborhood planning coalitions, and empower the residents. (Heuman, 2005, p. 113)

Nature of Ohio Businesses

According to the Ohio Department of Development's Office of Strategic Research (2005), all economic activity in the state is assigned a six-digit function code known as the North American Industrial Classification System (NAICS). This coding system is recognized in Canada, the United States, and Mexico. There are 19 major sectors in the system, which is an increase from nine under the previous Standard Industrial Classification (SIC).

Today, there are approximately 270,800 business establishments in Ohio. Figure 2 below provides a breakdown of the major private establishments in Ohio; the figure shows that the following sectors have the largest facilities, those operations employing more than 500 at a site.

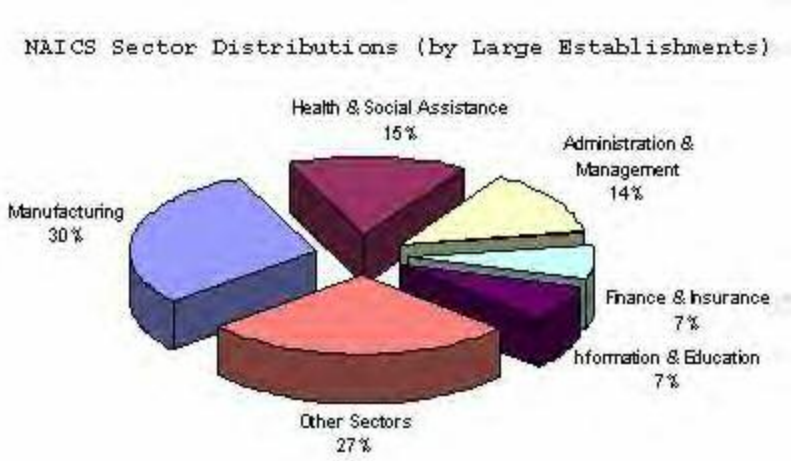

Figure 2. Percentage of Distribution for Ohio Businesses Source: Ohio Department of Development's Office of Strategic Research (2005), County Trends, p. 3.

Table 2 below provides the tabular breakdown of the type of establishment per industry sector:

Table 2

Type of Establishment per Industry Sector: State of Ohio.

SECTOR	ESTABLISHMENTS	
Manufacturing	275	30%
Health & Social Assistance	143	15%
Administration & Management	127	14%
Finance & Insurance	68	7%
Information & Education	64	7%

Source: Ohio Department of Development, 2005, p. 3.

Need for Training and Retraining

The study of training and workforce development services to business and industry through Ohio community colleges is a major and critically needed endeavour in light of the economic challenges facing Ohio since the 1970s. These challenges are due, in part to, Ohio's over reliance on the automotive industry and related industries that has resulted significant plant closings and subsequent layoffs. From June 2003 to June 2004, Ohio's total employment declined by 42,000. Even though manufacturing remains Ohio's largest employment sector and manufacturers contributed more than $80 billion to Ohio's gross state product, employment in this industry fell by 21,000 from June 2003 to June 2004 (Ohio Department of Development, 2005, p. 10).

Ohio needs a transformation from a limited manufacturing economy to a globally competitive and diverse manufacturing and knowledge economy. The state's failure to make this transformation may the result of Ohio's lack of adequate workforce development leadership at the regional and state political levels. Heumann (2005) reported that "Workforce development is not a common component of a local community or of economic development plans, because local governments seldom have the resources to develop and administer their own job training programs as part of an area redevelopment process" (p. 113). Today, workforce initiatives in many settings have become too generalized and training courses lack substance; these initiatives were developed by state or federal programs that were isolated from the real-world problems facing local industries and naturally failed to produce productive workers with skills matching local employment opportunities. In still other (and more common) cases, these workforce development initiatives were not coordinated with, and subsequently had little

impact on, local revitalization plans (Heumann, 2005, p. 113).

Growing concern regarding Ohio's competitive position in the global economy is beginning to be a matter of state study and discussion as Ohio's sluggish economy continues to show a lack of recovery. Despite the fact that the United States remains a world leader in developing new technologies, Ohio's share in technologically advanced business and industry has failed to materialize.

It is clear that two fundamental factors have contributed to a situation that is both chronic and endemic: Long-term inadequacy of workforce preparation to apply newer, more complex technologies as they become available and a lack of Ohio's leadership to guide the State in converting from a manufacturing economy to a knowledge economy despite workforce and economic development efforts mentioned above. According to a 2005 Ohio Chamber of Commerce account as reported by the Ohio Department of Development:

> Ohio's level of "globalization and dynamism" is weak…Ohio places near the bottom. The state is weak in overall business dynamism, as reflected by its poor performance in new business start-ups, mass layoffs, small amounts of investments raises, lack of fast growing technology companies and poor job growth in the state (p. 7).

Enterprise Ohio Network and Targeted Industry Training Grants

The Enterprise Ohio Network, a state wide association of 54 public two-year colleges and university branch campuses, has, through multiple efforts, empowered business and industry with the needed funds to provide training for employees that focuses on retaining and attracting business and industry within and to the State of Ohio.

TITGs are available to eligible companies through the Enterprise Ohio Network campuses. The Ohio Board of Regents renewed its support for TITGs for area businesses in 2002 (Nettis, 2002). Applications for the grants as well as the training became available through Lakeland Community College's Center for Business & Industry (CBI) beginning July 1, 2002; 2002 was the third year that these grants have been offered to industry. The grants cover up to 75 percent of the training costs for businesses with less than 100 employees or 50 percent for businesses with over 100 employees, with a maximum amount of $650 per individual actually participating in the training. The grants are "targeted" primarily for manufactures and assemblers but other businesses are also eligible if they are obtaining high tech training that will allow them to be more competitive (Nettis, 2002, p. 3).

> There has been a movement to greater market TITGs. Tressler (2004) reported:
>
> Because of greater awareness and the economic development offices and chambers of commerce getting the word out, we've been able to include more companies as recipients. Last year 13 companies received grants, more than doubling the number of companies participating from the previous year. While there has been a cutback in the amount of funds for these grants due to the State budget situation, we expect there will still be a significant amount of funds available this year. Our desire is to reach out to even more companies and increase the number of first-timers taking part in this program (p. 3).

During the period 1999-2001, more than $100,000 in grants was received by local companies in Ohio. For the year 2005, a total of $2,928,188 was slated to be received by 77 of the 88 Ohio counties. What was actually received, however, is still unknown. The

impact of these grants has transcended their modest totals. As Tressler (2004) noted:

> These grants have allowed companies to pursue training during some tough economic times. While the tight economy has impacted the State's budget as well, it is obvious the State recognizes the need to provide such grants in order to make an investment in our businesses' productivity (p.2).

Table 3 lists TITG monies allocated by county counties within Ohio in 2005 and the state's current poverty rates. As noted, 88 counties are included in the list. Of these, eleven are not slated to receive targeted industry grant money. Yet three of these counties (Gallia, Meigs, and Monroe) have very high poverty rate (24.4%, 25.8%, and 26.2%, respectively). The three highest poverty rates, in fact, were recorded for Athens (32.5%), Monroe (26.2), and Adams (26.1). The counties identified with the lowest poverty rates were Lake (5.2), Deleware (6.0%) and a tie among Medina, Mercer, and Van Wert counties (6.1% each). Of the 77 counties receiving funds, the total grant money allocated for 2005 was $2,928,188.

It can be speculated that TITGs have greatly helped employers enhance competitiveness and develop new business and have helped individuals retrain and find jobs. However, to date, there is little in the literature about the efficacy and values of TITGs. A study on the nature and extent of utilization of TITGs by businesses eligible for or receiving TITGs administered via community colleges, is, therefore, warranted and was the focus of the present study.

Chapter Summary

This chapter presented the literature related to workforce development, workforce development initiatives, community colleges and their role in and relationship to

workforce development and training and development, the background of the business climate in Ohio, and the role of Enterprise Ohio and nature of TITGs. While there is ample literature on the subject of workforce development, there is little in the literature about the efficacy and value of TITGs. Therefore, the present study was concerned with the nature and extent of utilization of TITGs by businesses eligible for or receiving TITGs administered via community colleges warranted.

In Chapter III the methodology of the study will be presented. This will include an explanation of the sample, the test instrument, and method of data collection. Validity and reliability will also be discussed.

CHAPTER 3

Methodology

Research Design and Method

Quantitative research aims to generalize or come to some common understanding of a given population (Blaxter, Huges, & Tight, 1996). This type of empirical methodology is concerned with the collection and analysis of data in numeric form. Quantitative studies assume a *value-free,* or objective, method for arriving at generalizations (Blaxter et al., 1996).

To determine the extent of utilization of TITGs by businesses eligible for or receiving TITGs administered via community colleges, this study utilized the quantitative method. Specifically, the study method consisted of five steps:

Step 1: A review of the literature on workforce development, the secondary data of the study, was conducted. A variety of sources were consulted to develop the statistical and industry data for this study, including Questia, EBSCO, public and university libraries, textbooks, and Web sites.

Step 2: The major factors identified from the literature review were incorporated into a survey questionnaire. Questionnaire items were then verified by a group of education professionals with expertise in the areas of workforce development.

Step 3: The questionnaire was piloted with nine individuals (one individual from each of the nine business regions) and then administered to the same nine individuals two weeks later. The correlation coefficient, r, was used to estimate the reliability of the instrument and determine if it was subject to random error.

Step 4: The survey questions were asked via telephone with 89 businesses in the state of Ohio to determine their knowledge about and utilization of TITGs.

Step 5: On the basis of the questionnaire data results, the research questions were answered and the answers were summarized (see Chapter IV). From the summary of the study findings, conclusions were drawn and recommendations for further study were made. A workforce development model that was based on the literature was presented (see Chapter V).

Instrumentation

The survey questionnaire consisted of a total of five questions (see Appendix A). Questions were rated on a 4-point Likert scale (4 = strongly agree, 1 = disagree). The nature of the questions concerned familiarity with TITGs, use of TITGs, satisfaction with TITGs, and the purpose for using TITGs. A group of five education professionals drawn from various colleges within the state of Ohio with expertise in the areas of workforce development reviewed the survey instrument. Their expertise has been proven though publications, presentations and other workforce development activities.

It should be noted that the four response categories of the Likert scale represent an ordinal level of measurement. While the categories represent an inherent order (more to less, stronger to weaker, bigger to smaller), the numbers assigned to the categories do not indicate the magnitude of difference between the categories in the way that an interval or ratio scale would. Advantages of the Likert scale include: (a) responses are gathered in a standardized way and questionnaires are more objective, (b) information can be gathered quickly, and (c) information can be collected from a large portion of a group (Maxwell, 1996). There are also disadvantages to the use of the Likert scale: (a) questionnaires

occur after the event, and participants may forget important issues, and (b) questionnaires are standardized and it is not possible to explain any points in the questions that participants might misinterpret (Maxwell, 1996).

To minimize the disadvantages of using a Likert-scaled questionnaire, survey reviewers received a copy of the telephone survey, a listing of the research questions, the purpose of the study, and a response table by email or facsimile. Reviewers were then asked to respond to these questions: (a) Does each question provide information needed to respond to the question? (b) Is each question stated clearly? (if not, please suggest alternative wording); and (c) Is there anything which needs to be added to improve the format or data to be collected from this survey?

Sample and Procedures

A random telephone survey of 89 companies in the Ohio Enterprise nine regions was conducted. Nine hundred businesses with 99 or more employees were randomly selected using Harris InfoSource, a tool that lists all business and industry within the state of Ohio that is used to assist sales and marketing professionals to find new customers and grow their sales with online information. The database of location-specific company profiles combines Harris manufacturing data with information on firms in all other industries. Together, this database offers customers complete coverage of all 14 million U.S. businesses along with significant Canadian firms. The foundation of the entire database features both automated and manual checks to ensure that all company profiles are as complete, accurate, and timely as possible. Each record in the database focuses on a single business location, providing contact information, proprietary 8-digit SIC codes, D-U-N-S numbers, web addresses, and other specialty fields. Manufacturing records also

feature Harris' 7,500 descriptive product categories, which offer a detailed look at a firm's products

The 900 companies were divided into the nine Enterprise Ohio regions and from these, the sample was randomly selected. Variation in the number selected per region was due to population differences and companies meeting the 99-plus employee criteria.

To ensure maximum participation, the researcher sent an email to participants one week prior to conducting the telephone survey that (a) invited them to participate, (b) explained the purpose of the research, procedures, and expected outcomes, and (c) indicated that the researcher would be calling them during a specific time period. After one week the researcher began the telephone surveys. If the individual with whom the researcher made the initial contact declined to participate, she asked for the name of another potential participant from that company. It was necessary in some cases to attempt to call the participant several times before reaching him or her. The researcher kept complete and accurate records of the telephone surveys.

Data Analysis

The data analysis method that was used for the telephone survey questionnaire was descriptive research. In descriptive research the major emphasis is on determining the frequency with which something occurs or the extent to which two variables co-vary; the study does not manipulate variables and does not try to establish causal relationships between events. Rather, perceptions are simply described (Kane, 1994). Thus, in this study, the data were organized, tabulated, and described by providing the number of times a particular response is made on the questionnaire, the percentage, and mean response.

After the telephone surveys were completed, the responses to each survey item were totaled and averaged to obtain mean scores for each item. Each survey question item was then analyzed separately. The findings generated from the study are presented in Chapter IV.

Reliability and Validity

Reliability and validity are important criteria for evaluating questionnaire measurements (Zikmund, 1991). Reliability is comprised of the dimensions of repeatability and internal consistency. According to Zikmund (1991): "Reliability applies to a measure when similar results are obtained over time and across situations… [It] is the degree to which measures are free from error and therefore yield consistent results" (p. 260).

While there is much discussion in the research literature about reliability and validity, Lincoln and Guba (1985) proposed an alternate term—trustworthiness. Guba (1981) outlined four constructs that correspond to the more traditional research reliability and validity terminology: (a) credibility (in preference to internal validity); (b) transferability (in preference to external validity/generalizability); (c) dependability (in preference to reliability);and (d) confirmability (in preference to objectivity). Lincoln and Guba (1985) argued that ensuring credibility is one of most important factors in establishing trustworthiness. They also suggested that the researcher is responsible for providing enough contextual information about the study to enable transferability. Lincoln and Guba (1985) emphasized the relationship between credibility and dependability; when a study is credible it is likely to also be dependable. In confirmability, steps must be taken to ensure that the study's findings reflect the result of

the experiences and ideas of the informants, rather than the characteristics and preferences of the researcher (Guba & Lincoln, 1989).Survey research, by presenting all subjects with a standardized stimulus, goes a long way toward eliminating unreliability in observations made by the researcher (Babbie, 2003). Moreover, careful wording of the questions can also reduce significantly the subject's own unreliability (Babbie, 2003). Validity of the survey and the follow-up interview questions was ascertained by approval of survey items by workforce development experts in accordance with Guba's (1981) recommendation that scrutiny of and feedback about a research work by colleagues, peers, and academics should be welcomed. The format and questions of the survey questions were modified based on feedback from these experts.

Reliability of the survey questionnaire was tested by asking nine individuals, one individual from each of the nine business regions, to answer the survey questions before asking the sample of the study to do so. The survey was then administered to the same nine individuals two weeks later to determine consistency of responses. The correlation coefficient, r, was used to estimate the reliability of the instruments and determine if they were subject to random error. The correlation coefficient was chosen because it is the statistic most frequently used in this type of test-retest procedure. The reliability coefficient (the squared correlation coefficient) ranges in value from 0.0 to +1.0, with a value of 0.0 indicating no reliability and a value of +1.0 indicating perfect reliability (Brightman, 1999). The range of values for the survey questionnaire items was .951 to .966, thus indicating general reliability of the items.

Chapter Summary

This chapter described the research design and methodology of the study to achieve its objectives and answer the research questions. Validity and reliability were also discussed.

The approach for this study was quantitative. The researcher developed a survey questionnaire and conducted a telephone survey of 89 Ohio businesses. Data collected from the surveys were analyzed using descriptive techniques. In chapter IV the results of the data collected from the telephone surveys will be presented and analyzed.

CHAPTER 4

Findings

Purpose, Objective, and Research Questions

The purpose of this study was twofold: (a) to determine whether Targeted Industry Training Grant (TITG) programs are utilized by eligible businesses; and (b) to ascertain the purpose for which TITGs are used. The study objective was to develop a model to improve dissemination and usefulness of similar training opportunities in other localities. The research questions for the study are:

1. To what extent are TITG programs utilized by eligible businesses?
2. For what purpose are TITG programs are utilized?

Sample

The sample consisted of 100 companies in the nine Enterprise Ohio regions and was randomly selected from the population of 900 businesses with 99 or more employees using Harris InfoSource, a tool that lists all business and industry within the state of Ohio. The 900 companies were divided into the nine Enterprise Ohio regions and from these, the sample was randomly selected. Variation in the number selected per region was due to population differences and companies meeting the 99-plus employee criteria.

Results of Surveys

A total of 100 companies were divided into the nine Enterprise Ohio regions. The sample was randomly selected from these regions. Eleven declined to participate leaving 89 survey participants. Mean scores were calculated for the responses to each of the five survey items. Questions were rated on a four-point Likert-type scale (4 = strongly agree,

1 = disagree). Table 3 summarizes the results of a random telephone survey of these companies relative to Targeted Industry Training grants.

Table 3

Targeted Industry Training Grant Data Analysis (Mean Scores)

Random survey: 100 Companies	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	
Companies surveyed	10	10	9	11	10	9	10	11	9	Overall Mean
I am familiar with TITGs	2.8	2.6	2.1	1.9	3.1	2.2	2.1	2.6	2.2	2.4
I have used TITGs	1.9	2.2	1.5	1.2	2.6	1.4	1.2	2.5	1.6	1.8
If used, I am satisfied with training received via TITGs	3.8	2.4	3.8	3.6	3.3	3.1	3.3	3.9	2.8	3.3
If used, the primary purpose was to retrain employees	3.3	3.6	3.3	3.6	3.6	3.4	3.2	3.3	3.6	3.4
If used, the primary purpose was to attract new business	3.3	3.8	3.8	3.6	3.8	3.8	3.5	3.8	3.9	3.7
If used, the primary purpose was to retain current employees	2.2	1.5	2.6	3.3	3.8	3.4	3.2	3.4	3.8	3.0

In response to the item, *I am familiar with TITGs,* the highest mean score (3.1) occurred in Region 5. The next highest means scores occurred in Region 1 (2.8) followed by Regions 2 and 8 (2.6 for both). This suggests that less than half, or 44 of the businesses surveyed, have heard of or are familiar with TITGs.

For the second item, *I have used TITGs,* the highest mean score (2.6) was in Region 5; the second highest (2.5) was in Region 8. Based on these mean scores it would appear that TITGs are not utilized in the majority of the regions.

Mean scores for the third item, *If used, I am satisfied with training received via TITGs,* were highest in Region 8 (3.9). Regions 1 and 3 had the second highest mean scores (3.8 for both), followed by a mean score of 3.6 for region 4. These results suggest that less than half (42) of the business surveyed that used TITGs were satisfied with the training received.

In response to the item, *If used, the primary purpose was to attract new business,* mean scores ranged from 3.9 to 3.3 for the nine regions, suggesting that TITGs were used primarily to attract new business in all of the regions. The highest mean scores for the final item, *If used, the primary purpose was to retain current employees,* were in Regions 5 and 9 (3.8 for both). This indicates some inconsistency, as the mean scores for Regions 5 and 9 in response to the previous item were 3.8 and 3.9, respectively. Thus, there is a conflict of what these regions viewed as the primary purpose of using TITGs. The only consistency was found in Region 2, which had the lowest mean score (1.5), indicating that TITGs were not used primarily to retain current employees; based on the mean score for Region 2 (3.8) for the previous item, it is evident that Region 2 used TITGs primarily to attract new business and not to retain employees.

Chapter Summary

In this chapter the data obtained from a telephone survey of Ohio businesses was presented and analyzed. In this study a total of 100 companies were divided into the nine Enterprise Ohio regions. The sample was randomly selected from these regions. Mean scores were calculated for the responses to each of the five survey items. Questions were rated on a four-point Likert scale (4 = strongly agree, 1 = disagree). Results were reported in table and narrative form. Based on the data, the three research questions of the study were answered.

Chapter V will summarize and discuss the findings and present conclusions. Recommendations for further research will be made.

CHAPTER 5

Conclusions, Discussion, and Recommendations

General Summary

This quantitative study examined the nature and extent of utilization of Targeted Industry Training Grant (TITGs) by businesses eligible for or receiving TITGs administered via community colleges. The research questions for this study were

1. To what extent are TITG programs utilized by eligible businesses?
2. For what purpose are TITG programs utilized?

The sample for this study consisted of 100 Ohio businesses that were divided into the nine Enterprise Ohio Network regions. The researcher conducted a telephone survey with these businesses that asked five Likert-scaled questions relative to familiarity with TITGs, use of TITGs, satisfaction with TITGs, and the purpose for using TITGs. Mean scores were calculated for the responses to each of the five survey items. Results of the survey were reported in table and narrative form in Chapter IV.

Results

Based on the results of the data analysis, the research questions of the study can now be answered. Research question 1 asked *To what extent are TITG programs utilized by eligible businesses?* The data show that less than half, or 44 of the 89 businesses surveyed, have heard of or are familiar with TITGs. As a result, as shown by the mean scores, TITGs are not utilized in the majority of the regions represented in this study. Of the regions that do utilize TITGs, less than half, or 42, of the 89 businesses surveyed that used TITGs were satisfied with the training received.

Research question 2 asked *For what purpose are TITG programs are utilized?* The data indicate that in all nine regions, the primary purpose for utilizing TITGs is to attract new business; however, in some regions, TITGs were also used to retain current employees.

Conclusions

The data gathered from this study suggest that progress must be made to get TITGs into Ohio companies to a greater extent if the economy is to make a comeback. In this study, the businesses in all nine regions that used TITGs did so to attract new business or to retain current employees, which is consistent with the objectives of TITGs, which are to help employers develop new business and to retain employees (Tressler, 2004). However, the majority of businesses had not heard of or were not familiar with TITGs.

As noted previously, the majority of the survey respondents had not heard of or were not familiar with TITGs. This suggests that the community colleges, which are responsible for administering TITGs, may be relying on traditional approaches to workforce development and may lack a strategic development plan to more aggressively and effectively promote Targeted Industry Training Grants. Therefore, community colleges need to design workforce development programs that have clear and distinct goals intended to promote TITGs. In other words, community colleges should tie workforce development to the mission of the Enterprise Ohio Network and Targeted Industry Training grants. A well-designed and well-administered workforce development program provides an alternative to traditional educational settings where adult learners

can gain the skills and training they need to succeed as soon as they complete the coursework, particularly those programs that include on-the-job training components.

Components of Workforce Development Models

Accordingly, based on the literature, the following are major components of workforce development models. These components address both the philosophical approach and specific action steps.

1. Adopt a systems approach that addresses specific business requirements that have defined and measurable objectives so that educational requirements can be established and matched with an appropriate delivery system (Muse, 1996). Promote collaboration between the academic and practice communities (Heumann, 2005).

2. Conduct a needs assessment with the purpose of focusing on issues such as content areas, level of educational need, under-served populations requiring specific educational needs, target populations for specific educational needs and delivery and scheduling preferences of adult learners (Palacios, 2003).

3. Develop system wide instructional models for academic preparedness. Promote core competency, standards, outcome-based education and training. Promote education and training experiences within practice settings (Falcone, 1994).

4. Pursue external funding sources for program development (Katsinas, 1994).

5. Maximize resources for targeted programs and services (Heumann, 2005).

6. Insure quality data collection, reporting and analysis (Palacios, 2003).

7. Increase program accountability through well-defined standards, continuous monitoring and improvement. Relate funding to program performance, standards and outcomes (Heumann, 2005).

8. Develop publications that articulate program strengths and accomplishments (Falcone, 1994).

9. Encourage and strengthen program research (Palacios, 2003).

10. Develop partnerships with urban and rural community organizations, educational and training agencies, business and industry and governmental entities (Cornish, 2005).

11. Connect program operations and participants to economic development and empowerment zone activities (Cornish, 2005; Townsend & Twombly, 2001).

12. Promote development of a workforce that reflects the community's diversity (Heumann, 2005).

Implications

In light of the data from the aforementioned sources and the data that was generated in this study, it is important to invest in workforce development initiatives that target real-world business needs and the learning needs of adult students. In today's increasingly globalized marketplace, effective workforce development programs may be the only viable solutions for employers and workers alike (Huang, 2005). According to Buchner (2005), the changing business climate today "means that there is a scarcity of high-quality workers seeking employment and an all-too-real danger of competitor businesses luring away prized employees. When the time comes to fill open positions,

employers' options are somewhat limited" (p. 16). Workforce initiatives supported by TITGs can broaden these options.

Limitations

This study had several limitations. Because the scope of study was limited to Ohio businesses and industries, the study may not generalize to businesses and industries in other states. In addition, the conclusions of the study were limited by the amount of information and data discovered in the documents, reports, and studies comprising the literature review. However, according to Babbie (2003), similar limitations inhibit the validation of findings of any study or research project, whatever the method.

Another limitation concerns the use of survey questionnaires. The researcher had no control over the interpretation of the questions asked in the questionnaires. In addition, it is assumed that respondents have answered the questions honestly and accurately.

The use of the Likert scale was also a limitation. As Glesne and Peshkin (1992) noted, participants may or may not give an accurate assessment of their beliefs, feelings, attitudes or behaviors. Participants may answer according to what they feel the correct response should be not how they really feel. In addition, participants may respond by always marking the most neutral possible answer. Thus, the data is legitimate only to the extent that participants are completely honest. However, Maxwell (1996) commented that subjectivity is inevitable in any study, whether qualitative or quantitative, and researchers should be conscious of this during their entire study.

Recommendations for Further Research

The workforce development efforts of the state of Ohio and the community colleges are valuable and laudable. However, Ohio continues to lacks statewide guidance towards becoming a global competitor in manufacturing, business, and industry. Workforce development efforts continue to focus on retaining current industry and manufacturers (i.e., automotive industries and their feeder industries) then on attracting new business and industry to Ohio. It is recommended, therefore, that additional research be conducted on specific strategies to move the state of Ohio from an industrial economy to a more nationally and globally competitive service/technological economy

The Enterprise Ohio Network has not delved deeply into examining how effective its efforts have been in attracting business and industry to Ohio, and there is a lack of hard data. As noted previously, the data showing that the majority of the survey respondents had not heard of or were not familiar with TITGs suggests that community colleges may need to develop a strategic plan to more aggressively and effectively to promote Targeted Industry Training grants. It is recommended that more study be undertaken that can identify specific strategies that will be consistent with both the mission of the community college and the mission of the Enterprise Ohio Network relative to TITGs.

This recommendation is made that is based on Drury's (2001) concept of the entrepreneurial community college. According to Drury, the entrepreneurial college combines workforce development, economic development, and community development. The entrepreneurial college is found within the community college and conveys an entrepreneurial spirit of its parent college. It adopts a more market-driven, customer-oriented approach to workforce and economic development programming; in other

words, the entrepreneurial college goes beyond simply responding to needs and creates demand for its services. Its offerings are non-traditional. A coalition of interested stakeholders is formed and community needs are identified by this coalition with the community college as leader (Drury, 2001). As such, it is recommended that this model be researched further and its possibility of being applied to Ohio community colleges' workforce development efforts be considered.

Finally, to support the empirical findings of the present study, it is recommended that follow-up studies be conducted, with larger sample sizes and a broader diversity of the sample groups included in the population. It is also recommended that thee research be more qualitative in nature by asking open-ended, probing questions to elicit more details answers that can give even greater insight to the findings of the present research.

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APPENDIX A: Telephone Survey Questionnaire

Targeted Industry Grant Telephone Survey Questions

Company:_____ Region:_____

4=Strongly Agree 3=Agree 2=Not Sure 1=Disagree

I am familiar with Targeted Industry Training Grants	4	3	2	1
I have used Targeted Industry Training Grants	4	3	2	1
If used, I am satisfied with training received via training grants	4	3	2	1
If used, the primary purpose was to retrain employees	4	3	2	1
If used, the primary purpose was to attract new business	4	3	2	1
If used, the primary purpose was to retain current employees	4	3	2	1

APPENDIX B: Poverty in Ohio and Targeted Industry Grant Money

County	1995 Population*	Targeted Industry Grant Money (2005)	Poverty Rate** (Percent)
Adams	27,550	11977.00	26.1
Allen	108,839	48902.00	13.8
Ashland	51,030	15000.00	12.8
Ashtabula	101,904	45790.00	17.1
Athens	60,710	6100.00	32.5
Auglaize	46,687	50138.00	6.7
Belmont	70,189	23904.00	18.7
Brown	38,708	2115.00	17.2
Butler	319,665	90922.00	12.4
Carroll	28,154	0	11.3
Champaign	37,551	0	9.5
Clark	147,266	11300.00	16.2
Clermont	166,789	44549.00	9.6
Clinton	37,932	6726.00	12.9
Columbiana	111,217	119552.00	16.7
Coshocton	36,068	8953.00	13.8

Crawford	47,372	24450.00	12.1
Cuyahoga	1,407,432	122480.00	19.3
Darke	54,182	2230.00	8.0
Defiance	39,882	9826.00	7.3
Delaware	78,926	10064.00	6.0
Erie	78,528	27844.00	11.7
Fairfield	117,197	63523.00	8.8
Fayette	28,243	5433.00	16.6
Franklin	1,008,596	119981.00	16.6
Fulton	40,685	22723.00	6.3
Gallia	32,565	0	24.4
Geauga	84,558	68212.00	6.4
Greene	140,584	28345.00	12.1
Guernsey	40,164	94883.00	19.5
Hamilton	860,693	189034.00	16.6
Hancock	68,186	21297.00	7.7
Hardin	31,558	16500.00	16.8
Harrison	15,947	0	20.5
Henry	29,707	24625.00	7.6
Highland	39,005	40446.00	16.9

Hocking	27,974	0	14.5
Holmes	36,130	9030.00	18.0
Huron	58,743	15951.00	10.9
Jackson	31,982	0	22.1
Jefferson	77,968	61211.00	21.2
Knox	50,866	40798.00	10.0
Lake	222,136	70324.00	5.2
Lawrence	63,943	41545.00	25.6
Licking	136,375	74628.00	10.4
Logan	45,134	4094.00	12.2
Lorain	280,141	40610.00	12.9
Lucas	453,697	83966.00	20.2
Madison	40,903	0	10.1
Mahoning	261,165	19301.00	20.2
Marion	65,372	19812.00	12.0
Medina	136,028	17105.00	6.1
Meigs	23,963	0	25.8
Mercer	40,772	12500.00	6.1
Miami	96,617	41545.00	8.7
Monroe	15,279	0	26.2

Montgomery	567,946	74003.00	15.3
Morgan	14,612	600.00	21.9
Morrow	30,107	8000.00	13.0
Muskingum	84,148	22262.00	17.1
Noble	12,053	15000.00	18.4
Ottawa	40,489	14537.00	7.1
Paulding	20,220	0	9.4
Perry	33,420	14600.00	21.0
Pickaway	52,362	5723.00	12.6
Pike	26,770	15040.00	24.3
Portage	148,171	47639.00	12.7
Preble	42,141	3167.00	9.6
Putnam	35,039	23443.00	6.5
Richland	127,922	49864.00	13.2
Ross	73,748	66230.00	19.5
Sandusky	62,783	16560.00	9.1
Scioto	81,097	70165.00	27.5
Seneca	60,198	33379.00	9.8
Shelby	46,855	19594.00	8.9
Stark	374,024	87741.00	12.1

Summit	527,933	80447.00	13.9
Trumbull	227,368	33906.00	14.6
Tuscarawas	87,280	59787.00	12.1
Union	36,476	4766.00	9.0
Van Wert	30,382	0	6.1
Vinton	11,980	4550.00	25.3
Warren	130,891	35850.00	6.9
Washington	63,624	49762.00	15.8
Wayne	107,241	44535.00	12.6
Williams	37,940	22950.00	6.9
Wood	116,720	32828.00	11.3
Wyandot	22,635	41016.00	6.7

Source:

Bureau Ohio Poverty Indicators, 2005