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Making it Work: Factors that Influence the Success of Programs at Rural Community Colleges

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MAKING IT WORK: FACTORS THAT INFLUENCE THE SUCCESS OF PROGRAMS AT RURAL COMMUNITY COLLEGES

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DEDICATION

For Ben and Daniel and all of my friends and family who supported me along the way.

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ABSTRACT

MAKING IT WORK: FACTORS THAT INFLUENCE THE SUCCESS OF PROGRAMS AT RURAL COMMUNITY COLLEGES

Community colleges are expected to contribute to economic development efforts by implementing new programs that respond to the needs of business and industry. Program development is complex, especially for community colleges in rural areas where business and industry are scarce. This qualitative study explores the factors that influence successful occupational programs at rural community colleges. Participants included administrators, faculty members, and students associated with three rural community colleges in West Virginia, as well as one state-level administrator and a former community college president. This study indicates the importance of five factors that influence the success of occupational programs: demand for the skills taught by the program, the leadership of the program director, the effectiveness of instruction, the support provided to students, and the relationship to business and industry.

CHAPTER ONE

INTRODUCTION

America's community colleges are expected to improve their local, regional, and state economies by developing and implementing programs that meet the labor needs of local business and industry (Dougherty & Bakia, 2000; Kasper, 2002-2003). Yet, many of America's community colleges are in regions where employers are scarce and the economy is stagnant. This situation is true in West Virginia, where much of the state is rural and potential employers are in short supply. Nevertheless, the state's 10 community colleges created 287 new programs between 2000 and 2013, with half of those leading to associate degrees and half leading to certificates. Fifty-three of those programs faltered and were terminated, while the others remain operating (West Virginia Council for Community and Technical College Education, December 12, 2013). This qualitative study examined successful programs at rural West Virginia community colleges, with the intent of identifying factors that influenced their success. This study will prove valuable not only to community college administrators in West Virginia, but to those in other regions of the country who face economic challenges similar to those in West Virginia.

BACKGROUND

The relevant research for this study can be organized into three main categories: the evolution of community colleges; the challenges faced by rural community colleges; and the creation of new programs. The supporting research will be reviewed in a manner consistent with those categorical groupings, a more thorough version of which can be found in Chapter Two.

Evolution of Community Colleges

Community colleges trace their roots to the junior colleges of the early 1900s that prepared students for a university education. From their beginnings as primarily transfer institutions, community colleges have evolved as their student bodies have changed. Bragg (2001) noted that in their early history, most community college students were male, white, and university-bound. As their student bodies changed, the colleges altered their missions to respond to their differing needs:

> As times passed and as enrollments grew, community colleges became increasingly diverse in the students they serve and in their purposes for being. Today community colleges fulfill a multiplicity of roles within their communities, offering a myriad of educational programs and services with a broad and sometimes contradictory set of outcomes. (p. 93)

Cohen and Brawer (2008) defined the five primary functions of community colleges as academic transfer, vocational-technical, continuing education, developmental education, and community service. The authors observed, however, that the functions are often intertwined: "Community college programs do not stay in neat categories when the concepts underlying them and the purposes for which students enroll in them are scrutinized" (p. 26). Cohen and Brawer (2008) noted that the terminology related to vocational education has never been exact: the terms "terminal," "vocational," "semiprofessional," "occupational," and "career" have been used interchangeably or in combination. Other researchers also recognized the complexities of community colleges, including Grubb, Badway, Bell, Bragg, and Russman (1997) who observed that the confusion over what community colleges do can be attributed to the fact that the different functions were never clearly defined by policymakers or the colleges themselves. The

authors also indicated that the various functions of the community college "overlap in bewildering ways" (p.101).

Community colleges in many, if not all, states are expected to contribute to their state's respective economic development efforts. Dougherty and Bakia (2000) observed that community colleges have played a part in improving their local economies as long as they have been training students for particular occupations. They noted, however, that community colleges began to take a more active role in economic development during the 1980s and 1990s. During this period, the focus of community colleges turned to "workforce education," a term that came to encompass a range of activities beyond traditional vocational education. Gray and Herr (1998) offered this definition of workforce education:

> Workforce education is that form of pedagogy that is provided at the prebaccalaureate level by educational institutions, by private businesses and industry, or by government-sponsored, community-based organizations where the objective is to increase individual opportunity in the labor market or to solve human performance problems in the workplace. (p. 4)

According to Friedel (2008), the interest in workforce education can be traced to dramatic changes in the national economy in the 1980s as jobs shifted from manufacturing to the service and technology sectors. Responding to the idea that a well-trained workforce attracts and retains business, state leaders promoted policies that supported workforce education. Dougherty and Bakia (2000) observed that the most common way community colleges increased their roles in economic development was by providing training under contract to employers or government agencies.

Rural Community Colleges

Hardy and Katsinas (2007) identified 922 rural community college campuses, a figure that represents 59% of the community college campuses in the United States. About a third of community college students are enrolled at rural community colleges (Hardy & Katsinas, 2007).

Rural community colleges face a number of challenges that colleges in urban and suburban areas do not. Students must travel farther to attend classes, and they are often less well prepared for the academic challenges of college (Garza & Eller, 1998). Rural community colleges also generally have fewer students, which presents funding challenges and affects curricular offerings and support services (Hardy & Katsinas, 2007; McNutt, 1995). Rural community colleges face less competition for their curricular offerings, but they may lack the critical mass of students to begin new programs. In addition, the institutions usually have smaller administrative staffs, so assessing student interest in new programs often falls to an administrator who has no training or skills in institutional research or curriculum development (McNutt, 1995). Nevertheless, rural community colleges are still expected to play a role in improving the economies of their regions (Garza & Eller, 1998; McNutt, 1995). This presents a difficult challenge in rural communities, especially those that are economically distressed:

> Challenges of geography and infrastructure, poor social services and inadequate education, and historical patterns of exploitation have left these regions dependent and without the human and civic capital to build a sustainable economy. The politics of race, class, and ethnicity have burdened their development in ways different from that of suburban America. (Garza & Eller, p. 38)

Program Design and Implementation

According to Barr and Rossett (1994), curriculum change at community colleges is a gradual process in which new programs and courses are added while outdated and obsolete ones are eliminated. Ideally, the process is "designed to result in a curriculum that both respects tradition and responds to the needs of students and communities" (p. 14). This "ever-changing" curriculum differentiates community colleges from other kinds of higher education institutions (McNutt, 1995).

Community colleges design and implement new occupational programs for different reasons. The catalyst may be a need in the community. For example, Bombach (2001) described a program at El Paso Community College in Texas that was designed by department-level administrators who were concerned about the effects of federal welfare reform on women and children. After forging a partnership with the city's YWCA, the college designed a child development program that allowed the students to receive education and training while satisfying welfare requirements. Many occupational programs, however, are designed in response to a need on the part of employers. Irlen and Gulluni (2002) described a program at Asnuntuck Community College in Connecticut that was implemented to meet the needs of the manufacturing industry in that state. Political leaders, economic development officials, and local manufacturers worked with college officials to develop a program that offered training for entry-level employment, as well as more advanced technology training that helped current employees advance in their careers (Irlen & Gulluni, 2002).

Community colleges like the one cited by Irlen and Gulluni (2002) are considered to be "market-responsive," a term MacCallum, Yoder, and Poliakoff (2004) defined in this fashion:

> A labor-market responsive community college delivers programs and services that align with and seek to anticipate the changing dynamics of the labor market it serves. These programs and services address the educational and workforce development needs of both employers and students as part of the college's overall contribution to the social and economic vitality of its community. (p. 5)

As a result of their qualitative study involving 30 community colleges around the country, MacCallum et al. (2004) determined that institutions take varying approaches to responding to the labor market because each market poses different challenges: "In other words, one size does not fit all, and what worked yesterday may not work tomorrow" (p. 5).

CONCEPTUAL FRAMEWORK

Researchers who have examined occupational programs have identified a number of factors that help them succeed, including effective administrators, involved faculty members, and relationships with business and industry. These three factors provided an initial framework for this research into successful occupational programs at rural community colleges.

Leadership

The community college of today is a challenging environment for leaders at all levels. Basham and Mathur (2010) noted that community college leaders must cope with shrinking budgets, aging facilities, high turnover among employees, increasing enrollments, declining completion rates, and unprepared students: "Within this climate, job roles and responsibilities of leaders and managers are stretched beyond the boundaries of their traditional descriptions" (p. 25). Boggs (2011) noted other challenges for community college leaders:

> While the founding leaders of the community college movement were the pioneers and the builders, today's leaders operate in a more complex world. Resources are constrained,

> accountability requirements are increasing, labor relations are becoming more contentious, and society is more litigious than ever before. Learning opportunities and services are now expected to be offered twenty-four hours a day, seven days a week. Distance learning technologies are erasing geographical boundaries, and competition for students will increase. (p. 13)

Summers (2001) observed that leading community colleges requires two critical traits: foresight and courage. He defined foresight in this context as "the unwavering commitment of leaders to seek out, listen to, and understand the views, trends, successes, and failures that suggest what a community college should become" (p. 19). With limited resources, community colleges cannot take on every project or initiative; therefore, leaders also must have the courage to choose only the best among them, according to Summers (2001).

Despite the many challenges, good leadership exists, as evidenced by case studies of occupational programs at community colleges, and this effective leadership is crucial to the success of occupational programs. The researchers who indicated that effective leadership played a significant role in the success of occupational programs included Bailey (2004), Bombach (2001), Dolce (2004), and Pagenette and Kozell (2001). While much of the research into community college leadership focuses on the presidency, several of the case studies substantiate the observation made by Riggs (2009) that it is the lower-level administrators, such as the deans and program directors, who often have the greatest impact on the actual operations of an occupational program. Riggs notes:

> Too few people outside of community college administrative circles really understand the enormous contributions outstanding mid-level administrators make to the successful operations of their colleges. While strong presidential leadership is a critical component

> to the long-term success of a college, the deans, vice presidents and other mid-level administrators are the ones who have the greatest impact on the actual operations, organizational priorities, and how the college really functions. The quality of the academic environment, meaningfulness of services for students, and support for the faculty are all driven by dedicated individuals in mid-level leadership positions and not out of the president's office. We need to do a better job of supporting our deans, vice presidents and directors if we want to make any progress in transforming our colleges. (para. 9)

Faculty

America's community colleges employ about 370,000 faculty members, with nearly 70% of them employed part-time (American Federation of Teachers, 2009). Most hold master's degrees or the equivalent experience in the fields they teach, their primary responsibility is teaching, and they rarely conduct research (Cohen & Brawer, 2008). Only 18% of community college instructors are full-time and tenured or on the tenure track (American Federation of Teachers, 2009).

Like the administrators, faculty members at community colleges face numerous challenges. Mellow and Heelan (2008) indicated that teaching at a community college today is more demanding than ever before because of the emphasis on the assessment of student learning. Faculty members are expected to assume the roles of mentors, coaches, and motivators, in addition to their primary role as instructors: "Clearly the role of community college faculty is evolving with our understanding of how learning occurs, and the evolution is both challenging and exhausting" (Mellow & Heelan, 2008, p. 127).

In their examination of teaching at community colleges, Grubb and Byrd (1999) found that occupational teaching at community college is "rich and complex, more so than teaching in academic subjects":

> In most occupations there are many competencies to master, including manual and visual abilities, problem solving, and interpersonal skills as well as conventional linguistic and mathematical abilities. The literacy practices are varied and sophisticated, though quite different from those in academic classes. (p. 99)

Grubb and Byrd (1999) noted that occupational instructors must master a range of teaching methods and must balance the demands of both students and employers. The demands of the workplace can be "multiple and conflicting" (p. 99): "The profound differences mean that occupational instructors have to balance even more elements, more demands and pressures, than do academic instructors. Yet . . . they have even less institutional support than do academic instructors" (p. 99). In his assessment of occupational education, Jacobs (2001) asserted that faculty members must be given the time necessary to update their own skills and knowledge; they now do it on their own time and "many simply can't keep up" (p. 191).

Community college faculty members appear to play a critical role in the success of their students and of community college programs. The research of Levin, Cox, Cerven, and Haberler (2010) illuminated the "promising practices" of effective programs at community colleges. Through purposeful sampling, Levin et al. selected five programs at California community colleges that have improved the achievement of minority students as measured by course pass rates, certificate attainment, and degree attainment. They concluded that the programs had four common characteristics: cohesion, the ability of personnel to operate as a unit; cooperation, the degree to which program personnel work together toward common goals; connection, the ability

of program personnel to sustain relationships with internal and external entities; and consistency, the presence of a distinctive and stable pattern of program behaviors. Levin et al. (2010) concluded that the key element to the success of the community college programs was the faculty, which they called the "visible, collective body of actors" in the programs that were studied (p. 54). Along with Brewer and Gray (1997), Levin et al. (2010) noted the importance of the faculty members' linkages to industry. In the case of a fashion program, for example, the faculty members' knowledge of the industry allowed the curriculum to remain current. In addition, faculty members used their connections in the industry to help their students find internships and employment.

Several researchers presenting case studies of successful programs noted the role that faculty played in the success of new occupational programs and the students enrolled in those programs. In their study of students in occupational programs at a New Mexico community college, Cejda and Rhodes (2004) found that the informal mentoring provided by faculty members played an important role in facilitating the success of students. Dolce (2004) called faculty and staff the "driving force" behind the development of a homeland security program at Bergen Community College in Paramus, New Jersey, where two full-time faculty members developed courses and curricula, nurtured student clubs, and remained involved in community and professional organizations. He also noted the role that part-time instructors played in the success of the program: "These part-time instructors not only teach courses but are also involved in the program's activities and enrich their courses with speakers and class trips. A number of adjunct instructors add the perspectives of professionals working in the criminal justice field" (p. 143). Other researchers who cited the importance of occupational faculty were Allen (2002),

Bailey (2004), Bombach (2001), Horton and Birmingham (2002), Jeffrey and Alvarez (2010), Knudson (2004), and Thigpen (2006).

Relationship with Business and Industry

Federal legislation such as the Perkins Act and the School to Work Opportunities Act encouraged community colleges to develop relationships with local businesses (Brewer & Gray, 1997), and those relationships have taken different forms. The most common way that community colleges gain access to representatives of their local industries is through the formation of business advisory groups, which serve a number of purposes for community colleges. Representatives advise programs and keep them up to date, help build external support for the colleges, and aid in the recruiting, guiding, and placement of students (Hansen, 1998). They may also be a source of funding for needed equipment or training through grants or donations (Hansen, 1998).

Some community colleges enter into more formal relationships with a business or an industry by developing a program that is designed specifically to meet their needs. Evolving labor requirements in high tech and rural areas of the country, as well as the pressure on community colleges to offer an innovative curriculum have spurred collaborative efforts (Kisker & Carducci, 2003). Through these partnerships, community colleges forecast workforce needs, refine their curricula, identify new revenue streams, and gain new technologies (Kisker & Carducci, 2003; Orr, 2001; and Young, 1997). These collaborations also provide students with new opportunities for job training and employment (Young, 1997).

Horton and Birmingham (2002) described the Working Connections Program, which was a collaboration among several community colleges and Microsoft to improve information technology education. The catalyst was grant money that Microsoft provided to the different

colleges, each of which assumed responsibility for different aspects of the project. Horton and Birmingham (2002) evaluated the program after the grant period ended and found that it made a "substantive and lasting contribution" to information technology education by improving curriculum, fostering partnerships, and increasing faculty expertise. Horton and Birmingham (2002) also noted that the program succeeded in attracting and retaining disadvantaged students by providing them with additional support such as counseling and tutoring. Several other researchers – including Adams and Bortz (2010), Curtis, Coleman, Saxton and Kelly (2004), Irlen and Gulluni (2007), Knudson (2004), Krull, Graham, and Underbakke (2009), Kube, Dempsey, and Pohlman (2008), Landt, Knazze, and Sud (2001), Pauley (2001), Raley (2000), Sink and Hutto (2004), Sundberg (2002), Tyler (2002), and Thigpen (2006) – also cited industry partnerships as central to the success of new occupational programs at community colleges.

PROBLEM STATEMENT

West Virginia's community colleges created 287 new programs between 2000 and 2013, with half of those leading to associate degrees and half leading to certificates. Fifty-three of those programs faltered and were terminated, while the others remain operating (West Virginia Council for Community and Technical College Education, December 12, 2013). The flurry of program creation was possible because of dramatic changes made to the state's higher education system that gave the community college system and the colleges themselves more independence and flexibility. The colleges tapped millions in state funding that was set aside for the creation of new programs.

Like community colleges elsewhere, community colleges in West Virginia are expected to respond to the needs of business. This is apparent in reading the legislation that placed the

community colleges under a separate governing structure from the four-year institutions: "The state needs to adopt and implement a specific focus on technical education; in particular, it needs to move away from the traditionally isolated and limited vocational programming towards [sic] a systematic approach of teaching technical skills that employers need today" (Senate Bill 448, 2004, §18B-2B-1, Legislative findings; intents; purpose). The legislation also stated that the state needed a technical education system that was separate from the university system and was "responsive to the needs of business throughout the state" (§18B-2B-1, Legislative findings; intents; purpose).

Some of the new occupational programs created at the community colleges have suffered from low enrollment and placement, while others have successfully trained and placed students. An example is the respiratory care program at Southern West Virginia Community and Technical College in Logan County. More than 85% of its students complete the program, and nearly all find jobs in the region. The success of individual programs at rural community colleges in West Virginia is notable because the economy is far from robust in most parts of the state. Logan County, where Southern is headquartered, had an unemployment rate of 9.5% in July 2012, compared to a statewide rate of 7.2% and a national rate of 8.6%. (U.S. Department of Labor, 2012).

This qualitative study focused on discerning those factors perceived to be the most important in the success of new occupational programs developed at the state's rural community colleges. The literature indicates that effective leadership, an involved faculty, and relationships with business and industry are important qualities to programmatic success, so the study considered those as potential factors while looking for others that may influence the success of occupational programs developed at rural community colleges.

PRELIMINARY RESEARCH QUESTIONS

- To what extent, if any, has the degree of leadership at the program level affected the success of the occupational program?
- To what extent, if any, has the participation of faculty experienced in the field affected the success of the occupational program?
- To what extent, if any, has the degree of collaboration with business and/or industry affected the success of the occupational program?
- To what extent, if any does the trajectory (i.e., declining, steady or emerging) of the business/industry targeted by the program affect its success?

OPERATIONAL DEFINITIONS

- Degree of leadership: The extent to which practices of individuals in leadership at the program level affect the success of occupational programs. This was measured through interviews with participants and observations of the programs.
- Degree of faculty experienced in the field: The extent to which having faculty experienced in the field affects the success of the occupational program. This was measured through interviews with participants and observations of the programs.
- Degree of collaboration with business or industry: The extent to which a strategic relationship with a business or industry affects the success of the occupational program. This was measured through interviews with participants and observations of the programs.
- Trajectory of the business/industry targeted by the program: The extent to which the trajectory of the business/industry targeted by the program affects its success. This was measured through interviews.

METHOD

The qualitative approach that was taken in this research acknowledged that the faculty and administrators associated with occupational programs at West Virginia's CTCs were the ones who had the most extensive knowledge about what made those programs successful. Students enrolled in those programs also offered an important perspective on what made those programs work for them. One state-level administrator and one former president of a West Virginia community were also included in this study. The participants' multiple viewpoints were a rich source of data that provided an understanding of what made some occupational programs more successful than others. Cresswell (2003) indicated that this constructivist approach recognizes the complexity of viewpoints as participants "construct" the meaning of the situation: "Often these subjective meanings are negotiated socially and historically. In other words, they are not simply imprinted on individuals but are formed through interaction with others . . ." (p. 8).

This study followed the general process as described by Cresswell that differentiates qualitative research from other forms of research. The process included the gathering of detailed information from participants; the formation of categories and themes; and the development of patterns, theories, or generalizations that were compared with existing literature: "Rather than the deductive form found in quantitative studies, these 'pattern theories' or 'generalizations' represent interconnected thoughts or parts linked to a whole" (Cresswell, 2003, p. 133).

This research involved three individual community college programs that were successful in training students and placing them in jobs in the local area. As this study focused on rural community colleges, it was necessary to determine which counties were considered rural and which CTCs serve those counties. Using 2007 figures from the U.S. Census, the Rural Policy

Research Institute (2009) identified 26 rural counties in West Virginia, which represents more than half of the counties in the state. The rural counties are Barbour, Braxton, Calhoun, Gilmer, Grant, Greenbrier, Hardy, Jackson, Lewis, Logan, McDowell, Mingo, Monroe, Nicholas, Pendleton, Pocahontas, Randolph, Ritchie, Roane, Summers, Tucker, Tyler, Upshur, Webster, Wetzel, and Wyoming. The three West Virginia community colleges with the greatest number of rural counties in their delivery districts are Eastern West Virginia Community and Technical College, New River Community and Technical Colleges, and Southern West Virginia Community and Technical College. (Although "technical" is now part of the name of each of the community colleges in West Virginia, this study uses the more conventional "community college" rather than "community and technical college," to be more consistent with current research in the field.)

Purposeful sampling of career-technical programs was employed for the selection of those programs to be studied. Using purposeful sampling, the researcher selects cases that are information-rich and illuminate the questions under study (Patton, 2002). This strategy of selecting a small number of successful programs to study is a common one in qualitative research; as Patton noted, "special cases" often are "a good source of lessons learned" (p. 7).

Access to the three rural CTCs was sought from deans at each of the colleges. (See Appendix A for a sample letter of introduction.) After the deans of the colleges suggested programs for study, the researcher then contacted administrators associated with each selected program. Snowball sampling was used to identify other potential participants, including faculty and students, who had extensive knowledge of the programs.

In-depth interviewing of the participants at each institution followed. The semi-structured interviews addressed the factors indicated in the literature while leaving open the possibility that

administrators, faculty members, and students would address factors that may not have been included in the existing research. (See Appendix B for interview questions.)

In addition, data were collected during participant observations at each of the community colleges. In this way, the data were placed in context, which is a goal of qualitative research (Bogdan & Biklen, 2007). Moreover, these observations — in combination with document analysis — served to triangulate the investigation.

The interviews were coded and transcribed, according to standard qualitative research procedures. Data from the document analyses, interviews, and observations were analyzed to address the research questions. Once the individual case studies were complete, they were compared in an attempt to find patterns that illuminated the factors that influence the effectiveness of new occupational programs at rural community colleges.

CHAPTER TWO

REVIEW OF LITERATURE

INTRODUCTION

This review of existing research addresses three areas, the first being the evolution of community colleges, with special attention to their transition from primarily academic institutions to vocational ones. The next section focuses on the special challenges faced by rural community colleges, while the third section addresses the planning and implementation of occupational programs in community colleges.

EVOLUTION OF COMMUNITY COLLEGES

At the close of the 19th century, populists were calling for greater access to higher education for the growing numbers of high school graduates, while others were seeking a way to divert all but the best students from universities (Witt, Wattenbarger, Gollattscheck, & Suppiger, 1994). Several prominent educators called for new ways to educate high school graduates for a university education including the founding president of University of Chicago, William Rainey Harper, who developed a plan to separate the first two years of colleges from the second two, and thereby revolutionizing higher education (Kane & Rouse, 1999).

The number of community colleges and their enrollments grew through the 1920s, and while universities lost students during the Depression, community colleges gained students (Witt et al., 1994). With New Deal funds provided for "emergency junior colleges," the number of institutions grew as well. The first known use of the phrase "community college" was made in reference to junior colleges established in Michigan with New Deal monies (Witt et al., 1994). Enrollments declined during World War II, but the war's end brought the GI Bill, which was as much a boon to the community colleges as it was to the four-year institutions.

The 1960s were another time of tremendous growth for the community colleges (Witt et al, 1994). Enrollments soared, and the community colleges began receiving a share of federal funds earmarked for higher education. The civil rights movement, the development of a national job corps, the return of veterans from the Vietnam War, and the women's movement also fueled the growth of community colleges (Mellow & Heelan, 2008). In the early 1970s, a community college was opening somewhere every month (Mellow & Heelan, 2008). To counter enrollment declines in the 1980s, community colleges increased their spending on advertising and marketing, generating an influx of part-time students. Part-time credit enrollment nearly tripled between 1970 and 1990, and the age of the average student rose to 28 (Witt et al., 1994) Enrollments grew during the 1980s but leveled off between 1990 and 2000 (Silverberg, Warner, Fong & Goodwin, 2004).

The recession of 2007-2009 brought a new period of growth to community colleges. Enrollments of traditional-age, first-time students at two-year colleges increased by 8.3% between 2008 and 2009. The surge was attributed to two possible factors: the choice of students to attend community colleges rather than more-expensive four-year institutions or the choice of students to attend community colleges instead of entering the workforce (National Student Clearinghouse Research Center, 2011). Enrollment declined slightly in 2010 as the economy began to recover (National Student Clearinghouse Research Center).

Shift in Mission

From their beginning, community colleges had multiple missions, including the preparation of students to transfer to universities and vocational education, with each part of the mission receiving different degrees of emphasis at different times (Cohen & Brawer, 2008; Witt et al., 1994). In the late 1960s and early 1970s, however, there was rising demand for

technicians, health care workers, and other kinds of trained workers, spurring the demand for vocational courses (Witt et al., 1994). Enrollment in liberal arts courses at community colleges began a steady, ongoing decline during the 1960s and 1970s as colleges put additional emphasis on vocational education (Cohen & Brawer, 2008).

Bragg (2001) and Boggs (2010) noted the substantial impact of the Truman Commission Report, released in 1947, which called for expansion of vocational education as a means of improving access to higher education. Cohen and Brawer (2008) also emphasized the role that federal funding played in this shift in focus for community colleges. In 1963, Congress passed the Vocational Education Act, which broadened the criteria for federal aid to schools, and over the next decade Congress appropriated billions for vocational education: "On this surge of funding, occupational education swept into the colleges in a fashion dreamed of and pleaded for but never previously realized by its advocates" (Cohen & Brawer, 2008, p. 245). Initially, the levels of skills taught by vocational programs in the community colleges were similar to those taught in high school programs, but community college programs became more sophisticated over time (Rosenfeld, 2000).

Occupational Education Today

Occupational education at community colleges can be divided into four categories: associate degree programs, institutional certificate programs, industry skill certificates, and non-credit coursework (Silverberg, Warner, Fong & Goodwin, 2004). Associate degree programs are generally made up of both academic and vocational for-credit course work. They generally take two or more years to complete, depending on how many credits students earn each semester. Institutional certificate programs are designed to upgrade job-related skills and require about a year's worth of full-time instruction in for-credit courses. They involve fewer, if any, academic

courses. Industry skill certificates are developed and recognized by industry and awarded based on the demonstration of well-defined skills and often require self-study. Noncredit course work serves student who are seeking specific job-related skills or personal enrichment activities (Silverberg, Warner, Fong, & Goodwin, 2004).

Forty-five percent of all undergraduates in the United States are enrolled in community colleges (American Association of Community Colleges, 2014). In 2007-2008, nearly 65% of community college students were occupational students (National Center for Education Statistics, 2008). Hirschy, Bremer, and Castellano (2011) noted that a degree in an occupational program does not preclude transfer to a four-year institution, though the transferability of the credits depends on the institutions, majors, and state policies.

From a demographic perspective, when compared with students in academic programs, occupational students are more likely to be male and more likely to be minorities. Most are over 24 years old, and they are less well off economically than students in academic programs (Bailey et al., 2004). Vocational students are also less prepared academically than students in academic programs. More than half of all vocational students wait more than a year after high school graduation to enroll, and about a third of all vocational students interrupt their attendance during a five-year period (Silverberg et al., 2004). Completion of programs is a concern for vocational students. Among students whose stated goal is an associate degree, only 38.9% receive a credential of any kind (Silverberg et al., 2004). Hirschy, Bremer, and Castellano (2011) observed, however, that many community college students never intend to graduate. They enroll with the intention of upgrading their skills in order to find employment or receive a promotion. Students must be working toward a degree to receive federal financial aid, so some students may

signal their intent to earn a degree despite having little interest in obtaining one (Hirschy, Bremer & Castellano, 2011).

Economic Development

Community colleges have always contributed to their local economies. Especially in rural areas, community colleges are often major employers, and their presence improves the infrastructure (Felix & Pope, 2010). No matter where they are located, community colleges improve the skills of workers, thus increasing the productivity of the workforce and adding to the total earnings of the community (Felix & Pope, 2010). In the 1980s, however, community colleges began to take a more active role in economic development. Jacobs and Dougherty (2006) noted that this trend occurred early in that decade as the post-Cold War economy was unraveling. Businesses were looking for ways to save money by outsourcing training, and state governments were willing to subsidize the training as a way of retaining or attracting new jobs. Community colleges began to focus on workforce development because a skilled workforce was linked to quality economic development (Young, 1997).

Into the 1990s, community colleges were influenced by policymakers' concerns over globalization and how it affected the American economy (Levin, 2001). This led to a "re-fashioning" of institutional mission: "Government policies clearly endeavored to direct community colleges toward economic goals, emphasizing workforce training and state economic competitiveness as outcomes, compelling colleges to improve efficiencies, increase productivity, and to become accountable to government and responsive to business and industry" (Levin, 2001, p. 237). The new global economy required greater uses of technology and new forms of working that put greater emphasis on teamwork, collaborative planning, and problem solving (Young, 1997).

Community colleges are now seen as "major drivers" of economic growth (Milliron & de los Santos, 2004). They offer workplace training programs that are designed to attract new employers to a location while retraining existing employees, making them important to economic development efforts (Kasper, 2002-2003).

Defining Workforce Development

The term "workforce development" has been defined differently by researchers. To some, the term most aptly describes the activities of the community college that involve training provided on a contract basis for an individual firm or industry. Bragg (2002) noted that these types of community college efforts are growing for several reasons: They enhance revenues, bring greater visibility to the institution and the region, and meet the needs of students for certification and immediate employment.

Other researchers view the term "workforce development" more broadly, using it to describe all of the functions of the community college related to the preparation of students for work. According to Grubb, Badway, Bell, Bragg, and Russman (1997), workforce development occurs when community colleges respond to the education and training needs of the local employers by adapting traditional schedules or developing short courses on topics selected by the employers to teach very specific skills. Jacobs and Dougherty (2006) also took a much broader view of workforce development, indicating that a college's workforce development mission includes "all the institutional programs, courses, and activities that prepare students for work. This major institutional function cuts across specific organizational units, and is present in credit and non-credit programs, career and technical areas, and contract training units" (Jacobs & Dougherty, 2006, p. 53). Jacobs (2001) classified traditional vocational education as an

important component of workforce development, urging a closer integration of community colleges' workforce development efforts and more traditional vocational education.

Community colleges' participation in workforce development has provided the institutions with a new degree of prominence. Jenkins and Boswell (2002) found that community colleges had been designated as the lead agency to provide workforce training in at least 19 states (not including West Virginia) and were considered prominent players in most of the remaining states. Their survey indicated that West Virginia policymakers were among those that felt a lack of funding for workforce development was a major challenge for community colleges. The other major challenge identified by West Virginia policymakers was the need to improve the responsiveness of community colleges to changing labor needs (Jenkins & Boswell, 2002).

Their increased prominence has led to significant changes for community colleges, including those in West Virginia. According to Friedel (2008), policymakers who expected community colleges to play a major role in economic development have altered the governance structure for community college education in many states. Friedel counted West Virginia among the eight states that made significant changes to the community college governance structure between 1997 and 2002 in response to this increased emphasis on workforce development. During this period, West Virginia's higher education system was undergoing a drastic reorganization, which gave its community colleges more independence from the state's four-year institutions.

RURAL COMMUNITY COLLEGES

Community colleges play numerous critical roles in rural communities. Grubb (2006) described the contribution of community colleges to their communities: "In some cases, particularly in rural communities or well-defined urban areas, colleges become a kind of all-

purpose education, training, economic, and culture centre, 'the only game in town,' serving a broader variety of individuals than traditional universities" (p. 31). In a qualitative study of three southern community colleges, Miller and Tuttle (2007) found that the colleges were focal points for municipal and civic activities and sources of community pride. By providing comprehensive programs and services, community colleges also contribute to the development of leadership for their communities (McNutt, 1995).

In many rural settings, the community college is one of the few institutions with the resources to promote economic development (Rubin and Autry, 1998; Young, 1997). Community colleges are "common ground" institutions that have the "stature, stability, and the flexibility" to provide leadership on economic development (Rural Community College Initiative, 2001). Several identifying traits make community colleges ideal engines for economic development, including their regional focus, links to employers, and breadth of mission (Rosenfeld, 2000). The biggest challenge to leading change in their communities is financial:

> The funds they do secure are generally quite inflexible and tightly tied to full-time equivalent enrollments, despite the fact that the vast majority of students are working and attending part-time, and despite their economic development missions and impact on their regions' economics and prosperity. (Rosenfeld, 2000, pp. 8-9)

Economic development remains a critical issue for rural America because so many rural areas are struggling. In many regions, incomes are lower, poverty rates are higher, the middle class is shrinking, and young people are leaving to find better jobs (Fluharty & Scaggs, 2007). Older workers may be less likely to pursue additional training, and an aging workforce is less attractive to employers who require a skilled and productive workforce (Green, 2012). There are

some rural areas of the country that have experienced job growth, but those jobs are often related to retail and tourism, which tend to offer low wages and few benefits (Green, 2007).

The U.S. Department of Agriculture has classified more than 380 counties in the United States as "persistent poverty counties," including 18 in West Virginia: Barbour, Boone, Braxton, Calhoun, Clay, Fayette, Gilmer, Lincoln, Logan, McDowell, Mingo, Monongalia, Roane, Summers, Taylor, Upshur, Webster, and Wyoming) (U.S. Department of Agriculture, 2010). Of these 18, 12 counties are classified as rural: Barbour, Braxton, Calhoun, Gilmer, Logan, McDowell, Mingo, Roane, Summers, Upshur, Webster, and Wyoming (Rural Policy Research Institute, 2009).

According to Chesson and Rubin (2003), improving educational attainment is vital to rural prosperity, but this poses a dilemma for rural communities. They cannot attract jobs without an educated workforce, but they cannot retain educated workers without a healthy economy: "Community colleges are uniquely positioned to address both sides of the dilemma, by building the foundation for a stronger economy and providing access to education and workforce training" (p. 3). Of the public community colleges that serve rural America, one in four serves economically distressed regions (Chesson & Rubin, 2003).

Operating in a rural setting poses challenges for community colleges, however. Rural community colleges tend to be smaller and their service areas larger (Rubin & Autry, 1998). They must provide comprehensive programs to a small student population, creating inefficiencies that affect program planning, research, and development (Pennington, Williams & Karvonen, 2006). In their study of rural community colleges, Pennington, Williams, and Karvonen found a number of challenges and concerns shared by administrators at rural

community colleges in Kansas. Among them were difficulties in obtaining grant funding, the aging student population, funding inequities, and difficulties finding qualified faculty.

Faculty

Rural institutions face challenges in hiring and retaining faculty because they cannot offer the same financial, cultural, and social advantages of urban community colleges (Murray, 2007; Murray & Cunningham, 2004). For some community colleges, salaries may present an issue in the hiring process. For example, Glover, Simpson, and Waller (2009) identified significant disparities in salaries between faculty in metropolitan and nonmetropolitan community colleges in Texas for the years 2000 and 2005.

In their study of rural faculty, Murray and Cunningham (2004) found that more than a third of them desired to leave their current positions. The faculty members' biggest concerns were the heavy workload and the lack of preparation and motivation among their students. Eddy (2007) also found that working with underprepared students was the biggest challenge cited by faculty at rural community colleges. Other challenges identified in that study were the assessment of student learning and integrating technology in the classroom. Eddy, however, also noted the benefits of working in rural areas:

> For some faculty, the draw is the beauty of the rural region. Simple living, safe communities, and outdoor recreation provide a draw and attraction to these areas. For others, the ability to have a significant impact on the direction of a department and program, to directly see the outcomes of learning for students, and to be intimately tied to making improvements to the regional economy are the benefits of teaching in a rural college. (p. 66)

Funding

Fluharty and Scaggs (2007) noted that rural community colleges receive less in grant funding, at least in part because the smaller colleges do not have the staff to pursue outside funding. Rural colleges must rely on state support, but they receive less than other institutions when the state support is tied to enrollment. Thus, rural community colleges are hindered by policies that treat all colleges the same, no matter their size or location: "Yet we know that geography and culture matter. Size and scale are crucial" (Fluharty & Scaggs, 2007, p. 21). Like Fluharty and Scaggs, Rubin and Autry (1998) also concluded that policies designed for institutions in urban and suburban areas do not fit rural community colleges. They recommended that rural community college be funded on a sliding scale that compensates those institutions for their higher administrative costs.

PLANNING AND IMPLEMENTATION OF NEW PROGRAMS

Community colleges develop new programs to meet the needs of students (Warford and Flynn, 2000) and/or the needs of their local economies (Boggs, 2010; Grubb, 1999; Leigh and Gill, 2009; Milliron & de los Santos, 2004). According to Mellow and Heelan (2008), the best community college programs go beyond meeting the needs of the local workforce to forecasting them. These colleges develop certificates and degrees that anticipate industry trends and allow the local economy to remain ahead of the curve in training employees: "The fluid and dynamic link between local businesses and the college further cements relationships that lead to enhanced fund-raising success, expanded public awareness, and increased political good will" (Mellow & Heelan, 2008, p. 211).

Grubb (1999) indicated that institutions have a variety of ways of keeping abreast of labor market trends, including labor market assessments, advisory committees, and local contacts

through instructors and co-operative education programs. The extent of these efforts varies substantially, according to Grubb (1999). Some states have strategies that help guide community colleges in establishing programs that address the needs of local businesses and the workforce. In Florida, for example, colleges that create programs that address a targeted occupation can do so without obtaining special permission or review (U.S. Government Accountability Office, 2004). MacAllum, Yoder, and Poliakoff (2004) indicated that the community colleges that are the most "market responsive" share several traits: leadership committed to the goal of making the college market responsive; internal response mechanisms that influence the campus organizational structure and culture; conscious and deliberate efforts to nurture business and other partnership; and strategic approaches to building connections to the local economy.

Warford and Flynn (2000) asserted that planning for new programs requires community colleges to examine the needs of students, as well as the local market. By understanding students, colleges can better plan how to serve them. Warford and Flynn (2000) categorized community college students into four categories, each of which has different needs: "emerging workers," defined as those 22 or younger who are preparing for first-time employment; "transitional workers" who are moving from one career to another; "entrepreneurial workers" who own their own businesses and use the community college as a training center; and "incumbent workers" who are currently employed but need additional training (Warford & Flynn, 2000).

Brabham (2009) examined the creation of new occupational programs at Wallace Community College in Dotham, Alabama. Her study indicated that the college followed eight steps in the design and implementation of new programs, including program selection, a feasibility study, program design, program approval, program marketing, the selection of faculty, curriculum development, and program implementation. Just the first four steps — from program

selection through program approval — took from 12 to 18 months and consumed many hours of faculty and staff time. According to Brabham (2009), faculty members viewed new programs as competition because they drew funding away from existing programs.

Jacobs (2001) and Mellow and Heelan (2008) noted that the primary challenge for occupational programs is remaining relevant. Work processes and technologies are always changing, and those new skills must be taught if students are to obtain employment. Even if the correct skills are taught, those skills may be used differently in different industries: "Not only are technologies implemented differently within individual firms, but also much technology is dependent on processes and implementation within that industry (Jacobs, 2001, p. 189). Remaining relevant requires community colleges to adapt quickly, but that is difficult at some community colleges because of the administrative approval required, according to Jacobs (2001). Kasper (2009) also noted the challenge of remaining current when the technology is changing rapidly:

> New technology almost always requires some new skills, even as it can leave some skills obsolete. If society wants community colleges to provide those new skills, the college curriculum and its faculty must be flexible but must also be able to distinguish between being responsive to new and necessary requirements and mere temporary opportunities. Start-up costs for some programs may run in excess of half-million dollars. (p. 4)

Fields that expand and change rapidly pose challenges for community colleges that are attempting to create programs to serve them. Mellow and Heelan (2008) indicated that as nursing and computer-related fields expanded, colleges found it hard to recruit and retain faculty. In addition, laboratories and equipment quickly became obsolete: "The ability to anticipate the next wave of employment is a complex prognostication at best. Any or all of these factors can result

in community colleges not being able to offer a truly state-of-the-art occupational program" (p. 212).

Zinser (2003) offered an example of a program that struggled because of its inability to remain current. Representatives of the plastics industry evaluated a community college program in which enrollments were falling despite growth in the number of jobs available in the industry. Industry representatives found that the equipment and the curriculum were outdated and that the course schedule was not structured to meet the needs of students. The researchers recommended that the faculty work more closely with the industry representatives to make updates to the individual courses and that the college devise a more flexible course schedule (Zinser, 2003).

Program Development at Rural Institutions

McNutt (1995) and Doyle (2011) observed that rural community colleges serving a vast and sparsely populated region face additional difficulties in developing new programs. A primary consideration is the cost of offering the program. The investment to start a new program may be high, but the potential enrollment may be small because of the region's small population base (McNutt, 1995). In his study of program planning at Arkansas community colleges, Doyle noted the differences in the experience of program planning for administrators at urban and rural community colleges:

> For urban college administrators it is not about whether the program will be successful but to what degree will it be successful. This sense of guarantee allows a great deal of freedom from worry for these administrators. This sense of guaranteed program success is not felt on the suburban or rural colleges because the number of potential students available is limited and even a well-developed program may fail because of the lack of students. (p. 199)

CONCLUSION

Over time, community colleges have evolved into institutions that dedicate much of their efforts toward occupational education. As key players in economic development, community colleges are expected to design and implement new occupational programs that address needs in the business community. This a particular challenge for rural community colleges because businesses and industries are limited in those regions. An examination of case studies of new occupational programs indicates that three factors — effective leadership, effective faculty members, and ties to business and industry — are key to the success of new occupational programs. This study will examine these factors and pursue others that may also be critical to implementation of new programs at rural community colleges.

CHAPTER THREE

METHODS

INTRODUCTION

America's community colleges are considered integral to economic development efforts, and therefore are expected to create new occupational programs that respond to the needs of a local business or industry (Dougherty & Bakia, 2000; Kasper, 2002-2003). In fact, the best community college programs develop certificates and degrees that anticipate industry trends and allow the local economy to remain ahead of the curve in training employees (Mellow & Heelan, 2008). This is an arduous task for all community colleges, but rural community colleges face additional challenges because businesses and industries in those regions are so limited. In addition, the investment required to develop a new program can be significant, but the potential enrollment may be small and the demand for the skills weak (Doyle, 2011; McNutt, 1995).

West Virginia's community colleges offer an unusual opportunity to study the development of occupational programs in rural settings. A reorganization of higher education in West Virginia that occurred between 2000 and 2009 provided the state's community and technical colleges with new independence and additional funding for program creation. Among the developments during this period was a change in the policies governing community colleges that allowed them to implement new occupational programs and operate them for three years with little state oversight. The 10 community colleges responded by developing 287 new programs in fields as diverse as wind technology, hospitality, and paralegal studies.

The classification used by the Rural Policy Research Institute (2009) was used in determining which West Virginia counties are rural. Its economic profile of West Virginia classified 26 counties as rural or "noncore" as opposed to metropolitan or micropolitan. By

comparing those rural, or noncore, counties with the service areas of the community colleges, it was found that the three community and technical colleges that serve primarily rural areas are Eastern West Virginia Community and Technical College in Moorefield, Hardy County; New River Community and Technical College in Beckley, Raleigh County; and Southern West Virginia Community and Technical College in Mount Gay, Logan County. Eastern's delivery area includes six counties, four of which are rural: Grant, Hardy, Pendleton, and Tucker. The other two counties are Hampshire and Mineral. New River serves nine counties, five of which are rural: Greenbrier, Monroe, Nicholas, Summers, and Webster. The other counties in New River's service area are Fayette, Mercer, Pocahontas, and Raleigh. Southern serves six counties, four of which are rural: Logan, McDowell, Mingo, and Wyoming. The others are Boone and Lincoln.

The intent of this study was to uncover factors that led to the success of occupational programs at the three rural community colleges. The research considered the three factors revealed in the literature — effective leadership, an involved faculty, and links to business — while remaining open to other factors and to the likely interplay among the factors that may have contributed to the success of the programs. These were the preliminary research questions:

- To what extent, if any, has the degree of leadership at the program level affected the success of the occupational program?
- To what extent, if any, has the participation of faculty experienced in the field affected the success of the occupational program?
- To what extent, if any, has the degree of collaboration with business and/or industry affected the success of the occupational program?

- To what extent, if any does the trajectory (i.e., declining, steady or emerging) of the business/industry targeted by the program affect its success?

A review of existing literature revealed that the research into occupational education at community colleges is limited. The results of this research will be valuable to administrators in West Virginia and administrators at community colleges in other regions of the country that are faced with the task of creating new occupational programs.

This study followed the general process as described by Cresswell (2003) and others and included the gathering of detailed information from participants; the formation of categories and themes; and the development of patterns, theories, or generalizations. The first step was the analysis of documents related to the programs, including applications for funding, audits done of the programs, information from minutes or agendas of the West Virginia Community and Technical College System, informational brochures or fliers, or any other information available about the programs, such as media coverage (e.g., newspaper stories, websites, blogs, etc.) The programs that were studied were identified by the three community colleges as "successful" programs. Two of the programs were relatively new, while one was an established program. They represented three different fields: technology, health care and education.

Consent to conduct this study was secured from community college administrators and the Institutional Review Board of Marshall University. (See Appendix C for Institutional Review Board Approval.) Once the permission was granted, interviews were scheduled with administrators, faculty members, and students associated the program. The administrators chosen included those most active with the program, including the program directors. The faculty members were those who taught in the program, and the students were those enrolled in the program. Each subject was asked to sign informed consent documents before being interviewed.

Institutions were identified by name, but participant confidentiality was maintained throughout the study.

During a series of semi-structured interviews, participants at each of the colleges were asked similar questions. The questions were open-ended so that participants were free to express their views, opinions, and interpretations of the situation. The interviews addressed the factors that have influenced the success of occupational programs at community college elsewhere, while also exploring additional factors. As Cresswell (2003) notes, a characteristic of qualitative research is that it is emergent rather than prefigured, indicating that questions may change and be refined over time.

The data analysis followed the steps outlined by Cresswell (2003). The first step was organizing and preparing the data, which included transcribing interviews, scanning material, and typing field notes. The second step involved reading through all the data to obtain a general sense of the information and to reflect on its overall meaning. The third step was a detailed analysis with a coding process that was used to generate a description of the setting as well as categories or themes for analysis. The themes were analyzed for each case and across the different cases. The final step in the data analysis involved making an interpretation of the data.

The meaning derived from the research was compared with information gleaned from the literature or extant theories: "In this way, authors suggest that the findings confirm past information or diverge from it. It can also suggest new questions that need to be asked — questions raised by the data and analysis that the inquirer had not foreseen earlier in the study" (Creswell, 2003, p. 195). The intent of the research was to search for patterns of meaning in a process that is largely inductive and interpretive: "The thinking process is also iterative, with a cycling back and forth from data collection and analysis to problem reformulation and back"

(Cresswell, 2003, p. 183). Participants also were asked to review the transcriptions of interviews to ensure validity.

This research was limited by the fact that it focused on only three institutions in one state, so the findings were limited to only those individuals interviewed rather than being generalizable to the larger population of individuals involved in the implementation of such programs. Responses may have emanated from a particular bias as well. In addition, the participants selected for interviews may have had limited knowledge of what makes their occupational programs successful, although the use of snowball sampling is designed to minimize that possibility. Despite these limitations, the research will prove valuable to administrators in West Virginia and elsewhere who face obstacles in planning and implementing new occupational programs.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

INTRODUCTION

Participating in this study were administrators, instructors, and students from three West Virginia community colleges: Eastern West Virginia Community and Technical College, New River Community and Technical College, and Southern West Virginia Community and Technical College. Administrators at each of the colleges identified successful occupational programs for this study.

Eastern West Virginia Community and Technical College (Eastern) in Moorefield, Hardy County, was founded in 1999 and remains the smallest community college in the state. It serves six counties: Grant, Hardy, Hampshire, Mineral, Pendleton, and Tucker. In addition to its building in Moorefield, the college has a technical center in Petersburg and offers classes at several other locations in the region. The program at Eastern chosen for this study was the wind energy turbine technology program, which offers a certificate and an associate in applied science degree.

New River Community and Technical College (New River) in Beckley, Raleigh County, was created on July 1, 2003, by the West Virginia Legislature as part of changes intended to provide autonomy for the state's community colleges. New River absorbed the community college functions of Bluefield State College, as well as Glenville State College's community college campus at Summersville. In addition to the headquarters in Beckley, the college has campuses in Lewisburg, Princeton, and Summersville and a technology center in Ghent. The college serves Fayette, Greenbrier, Mercer, Monroe, Nicholas, Pocahontas, Raleigh, Summers, and Webster counties. The program chosen for study from New River was the paraprofessional

education program, which allows students to seek immediate employment upon completing the degree or to transfer to an education program at a four-year institution.

Southern West Virginia Community and Technical College (Southern) in Mount Gay, Logan County, was founded July 1, 1971, as Southern West Virginia Community College, by the consolidation of Marshall University's branch campuses at Logan and Williamson. The college also has campuses in Foster and Saulsville and serves Boone, Lincoln, Logan, McDowell, Mingo, and Wyoming counties. The program at Southern chosen for study was the respiratory care technology program, which prepares students to evaluate, treat, and care for patients with breathing or cardiopulmonary disorders. At the completion of the two-year program, students are eligible to sit for the exams offered by the National Board of Respiratory Therapists. The program takes two years and involves both classroom work and clinical training at several hospitals in the region.

PARTICIPANTS

Participants included administrators, instructors, and students who described their programs and reflected on their perceptions of what made them successful. As expected, their responses differed because their perspectives differed. While the students often reflected on their own progress and experiences, the college administrators and instructors described the programs in broader terms. In addition to the participants associated with individual community colleges, a state-level administrator and a former community college president were interviewed. Both have experience in implementing occupational programs at different institutions, enabling them to reflect on why some programs succeed while others falter.

RESULTS

Interviews with the 15 participants point to five primary factors that influence the success of community college programs: an identifiable need on the part of employers; competent

leadership, especially on the part of the program director; effective instruction; support for students; and a relationship with the industry being served.

Demand for Program

Successful occupational programs at community colleges produce graduates whose skills are in demand by employers. According to the state administrator, overcoming a lack of demand is nearly impossible for community colleges: "If there is not a demand for that program, and it does not lead to jobs, then there's not a whole lot anybody can do."

To identify a need, West Virginia community college administrators study data that indicate what jobs are in demand in that region. They may also do a "needs assessment" to help them gather additional information about the needs of local employers, including asking them to provide letters that indicate how many employees with a certain skill the employers need now and in the future. The state-level administrator indicated that colleges must provide evidence that there is a demand for the program before they receive state funding for it. Colleges are encouraged to consider the needs of the "sector" (i.e., the industry in the region), not just one company:

> The biggest thing is that before we put money into a program: Are there jobs? We know sometimes that changes by the time they get it up and running. But we want some documentation because we know that if there aren't jobs, students aren't going to be there. They may be there initially, but if they can't find jobs, the program is going to die.

Eastern's wind energy program and Southern's respiratory care program were created in response to demand on the part of local employers. That need for employees has fluctuated over time, however, and administrators at the two institutions have responded in different ways to those changing needs.

Eastern is located in the Potomac Highlands region of West Virginia, which has attracted a number of wind farms. With state and federal funding, the college developed the wind energy technology program in 2009-2010 to train students to maintain wind turbines. The development of the industry offered the college an opportunity to create a program ideally suited to that region, which has little other industry besides poultry. The administrator at Eastern noted:

> We're out here in the woods. We don't have a lot of manufacturing — we're not like Charleston and Huntington where there's a lot of business around. We have several larger businesses, and we have some wind farms. I think within 150 miles from here, there's something like 350 or 400 wind turbines, and they are installing more. It's a good place for the wind school — nobody else in West Virginia probably is going to teach wind tech training. It would make no sense for another school to do this training because it's a very expensive training.

The Eastern administrator noted, however, that the job prospects for program graduates have diminished over time because the turnover rate at the wind farms is low. The administrator indicated that he is upfront with students about the job market from the beginning: "I don't try to mislead them. I want them to understand there's a lot of job prospects, but they are not here at home." He also noted, however, that some of the graduates who wanted to remain in the area have found jobs in mining and manufacturing because the training provided by the program is suitable for other industries.

Southern began its respiratory care technology program in 2007 after receiving requests for such a program from hospitals in the region. The administrators questioned hospitals about employment, asking them to project their needs 10 years into the future. The needs assessment

also considered the health of residents in the region served by the hospitals. The administrator observed that the needs assessment made it apparent the program was needed:

> The needs survey forecasted that within 12 years 50 to 60% of the respiratory therapists in this area would have reached retirement age or close to it. We saw a big need at the time. The needs survey assessed all of the health factors in the area. This area, eastern Kentucky-southern West Virginia, has the highest smoking rates in the eastern United States. Where else would you need a respiratory therapist but in a situation like that?

Southern's respiratory care program takes a new class every other year in an effort to stagger the influx of graduates into the job market. The demand for respiratory therapists in the Williamson area, however, where the classes are taught, is beginning to decline, so the next class will be divided into two groups. One group will attend classes in Williamson, and the other will attend classes on the college's campus in Wyoming County. Eventually graduates are expected to find work in a greater swath of the state. The program director indicated that it is necessary to adjust to the needs of the economy for the sake of the program: "If you put out 30 respiratory therapists every year, and you flood this market, this program will die."

The paraprofessional program at New River Community and Technical College has been in existence since the college began in 2003. It allows students to complete the first two years of the education program before enrolling at a four-year college. With the degree, students also go directly from the program into the workplace, often a day care or preschool. The college is in the process of developing another education degree, this one in early childhood education. In planning for this program, the New River administrator did an informal needs assessment, questioning education leaders and child care providers around the state about what they wanted in the program:

> For the early childhood program, I've met with RESA [Regional Education Service Agency] directors. We've met with most of the major child care providers. They have told us they're going to lose all their instructors if they aren't certified by 2014. Several of us, a whole committee of us, would drive to Wyoming County, all the different areas in our service region to see that the need was. Ours was more informal. When it came to early childhood, I wanted to know more than 'Do you need it?' I wanted to know 'How do you want us to deliver the courses? Would you rather us send an adjunct instructor over here? Would you rather they be web enhanced?'

The administrator of the paraprofessional program expects demand for the paraprofessional education program and the early childhood program to remain strong, in part because of state education policies that required preschool teachers to have a certain amount of formal education by 2014 or lose their jobs.

Several of the administrators noted the difficulty of attracting students to their programs. In the case of technical programs, the hardest group of students to target appears to be recent high school graduates. The state administrator noted, "The high school student, it's not the cool thing to do — go into a community college manufacturing program." The instructor at Eastern indicated that students today are not encouraged to pursue technical education:

> Back in the '60s, I'm telling you my age, you either went to college, or you got a job in a factory. But here, it's the same thing in 2013, you are either pushed to college or you pluck chickens. And there was no in between. So a lot of kids, it was determined they weren't college material, so they let them go. We've run out of technical people, so to make this program successful, we've got to convince the school systems that those kids

> who aren't going to college or may not particularly want to college right off really need to consider maybe a technical field.

The former college president indicated that targeting the right group of potential students is important to the success of a program. He credited the success of a program at his former institution, in part, to efforts that led to marketing of the program to the people ages 25-44 who were most likely to take interest in it: "The success of some of those programs depends an awful lot on marketing and finding out how to market that career-technical program to the populations out there." He indicated that recruitment cannot be left up to the campus recruiter, but must be done by everyone involved, including faculty, administrators, and industry leaders:

> It has to be a real partnership where they are out there talking to people. They are going to visit the chamber of commerce, and they are talking to all the other business and industry folks who are not even in their business, but are talking to them about it so they know about it. It becomes an active recruitment effort across the region.

The administrator at Eastern also noted the importance of marketing or "buzz" to the success of a community college program. Media attention paid to alternative energy has helped boost interest in the wind energy program, he observed. The name of the program, however, deters some potential students who are afraid of heights. If the prospective students call or visit, the administrator explains that the training can be used in other industries, as well: "If they talk to me, I can explain that to them. If they don't talk to me, if they just look at our website, they think, 'I can't do that.' " The administrator indicated that the name of the wind energy program may change in the future, noting that community colleges are willing to alter names of programs to appeal to potential students and their parents:

> Even automotive maintenance people are called automotive technicians. Mom and Dad, they don't want Johnny to get a job where he's an auto mechanic. Automotive technician, now that's different. That's the guy who uses a computer to fix [the vehicle]. It's about the titles.

If the demand for an occupational program does fade, however, college administrators are faced with the task of deciding what to do with it. The state administrator described programs that were deemed unnecessary because the program had saturated the market with graduates. In some cases, the industry itself changed, making the skills less relevant. The former college president cited a program that trained employees to work in power plants. The program thrived until power plants began to shift from coal to natural gas. Demand for the program's graduates dwindled, and that program is in the process of being phased out. The former president indicated that community college employees may lose their jobs when programs are dismantled, which makes the process painful but necessary: "It's almost an ethical issue. How do we go out and recruit students to a program where there are no jobs?"

Even when a need is identified, developing a program may not be easy in a rural area because of a lack of demand on the part of students. In rural areas, there are simply fewer potential students, and getting them interested in some programs is a challenge. The Eastern instructor described efforts to develop a training program for volunteer firefighters to become emergency medical technicians. The college has struggled to find instructors and enough students willing to travel for the program:

> For Charleston, it wouldn't be hard. You'd get enough people that you can have a class of EMTs every evening, and you'd fill a class up. When you get into Pendleton, Grant, Tucker and Hardy, people really have to have the desire to do it.

The New River administrator indicated that their communications program was being eliminated because so few students had enrolled. The remaining students are taking the final courses they need to finish the program, an effort called "teaching out":

> We thought [the communications program] would be such a big hit, but I guess the people who want to go into communications will do it in a four-year college, but the two [students] that I have that are currently teaching-out already have jobs. Two of them are working in radio stations in Summersville. They did their internships there, and they got hired. These are real people with real jobs. We just can't get enough students, but community colleges are supposed to be that way. If the community needs something, you bring it in. If they don't need it, you need to teach-out and continue.

When programs are eliminated, the resources that were supporting that program are shifted elsewhere. The former college president observed that the community colleges' need to discontinue programs when the demand lags influences how tenure is granted by the colleges:

> You work year to year. If the program goes away, we're sorry but we can't keep you around here. It's not a social service agency. It's a college. We now have programs growing over here, so we've got to able to hire somebody with those skills to support that program, and the only way to do that is to not pay you. It sounds cold-hearted, but it isn't. It's just the way of the world in community colleges.

Leadership

Beyond demand, leadership appears to be the key factor in the success of occupational program. At rural community colleges, programs are usually small with just one or two dedicated employees, or in some cases, none at all. Only one of the programs selected for this study — the respiratory care program at Southern — is led by an administrator with the title of "program

director" who teaches, but who also has administrative responsibility for the program. The other two are directed by higher-level administrators with the responsibility of overseeing numerous programs. These two higher-level administrators, however, do identify themselves as the "program directors" in relation to the two programs studied.

The state administrator indicated the key factor to a successful program (one that already meets an identified need) is the leadership provided by the program director:

> I think that it is just the quality of that individual who is running that program, how dedicated they are, how hard they work, how knowledgeable they are about the program, but probably more importantly, how knowledgeable they are of working with different groups.

The former community college president also identified the program director as a key factor in the success of a community college program: "One of the things that is very important in the effectiveness of those programs is the leadership. It's the leadership at the college. It's the leadership at the level of delivery of the program."

The state administrator and the former college president listed similar qualities in describing good program directors, citing knowledge of the industry, dedication to that industry, and the motivation to teach students what they need to know. The administrator and former president emphasized the program director's experience and ability to communicate. The former president observed:

> Having that experience in the industry, whatever it is — whether it's timber or welding or whatever it might be — that is critically important, and the ability to be able to communicate the essential skills of that career to those folks who are interested in it.

> There are a lot of people who know a lot about a lot of different things, but they are not very effective at communicating it to people.

Both administrators emphasized the need for the person to be willing and able to work with external groups, including representatives from industry, high schools, and career-technical centers to assess the needs of those groups and to recruit students. The state administrator described one such program director:

> That particular case, this person was engaged. He knew all the employers that employed folks out of this area. He knew what kind of skill level they needed. He knew what jobs they had, and plus he had traveled all over the state to the career-tech centers that had similar programs and made those contacts. A lot of them had gone through his program and now were teaching there. He made those contacts and worked out agreements to come in, so if a student was coming out of career center and wanted to go this particular program, that's where they went. . . . To me, that's what makes programs successful. You have to go above and beyond, unless you just have a program that everyone is dying to get into.

The state administrator observed that some programs suffer when the program director leaves. He described one such program that faltered after the director retired because the person who replaced him did not make the same kinds of contacts outside the classroom: "The person coming in . . . didn't do the things he did outside the classroom to keep that interest going, to keep that involvement going. And the program is struggling."

The directors of the three programs in this study were asked to reflect on their own leadership, in particular what they viewed as most important to ensuring the success of the

program. They described four primary factors: student engagement, employer engagement, the hiring of effective instructors, and program review.

In describing his leadership, the administrator at Eastern compared himself to the "old guy" from the movie *Jurassic Park*, who watches the dinosaurs hatch on his own island:

> They are like my children. They come in, and we talk over their interests and aspirations. We go through what they need to take. We make a relationship with these people. Making them understand we're trying to help them is the most important thing for the program director to do.

The administrator at Eastern emphasized his role in employer engagement, indicating that he is "constant contact" with representatives from industry.

The director of the respiratory care program indicated that his main task is accreditation: "We're constantly monitoring accreditation guidelines, policies and procedures, and we're making sure this program runs in accordance with accreditation's guidelines and procedures." He is also focused on the progress of individual students, indicating that his success as program leader is connected to their success in the program:

> When I lose a student, I feel like it's a loss on my part as well as theirs. And I take it personal. I have to go to bed at night knowing that I've done everything I could do to save that student.

The administrator at New River indicated that reviewing the program on a periodic basis is a critical aspect to her job as director. Assessments of the program are done each year, while more extensive program audits are done every five years as required by Community and Technical College System of West Virginia. Another important aspect to the position is finding

qualified instructors because most of the classes are taught by adjuncts: “It is finding the right teachers. It absolutely is.”

While the leadership provided by the program director appears to be critical, the success of a program also depends on the support and leadership of others at the community college. The former college president observed that a successful program requires support at all levels, including vice presidents, deans, and the president:

> Do those people support the program? Do they communicate across the campus that this is an important program? Everybody in the college needs to understand that program. Everybody in the college ought to be helping to market and recruit for the program.

The program director of the respiratory care program at Southern indicated that program would struggle without the support of the administration. As an example, he described a problem his program experienced with outdated technology. Students were using older computers that would not run the necessary simulation training, and they struggled during their board examinations:

> I had to take those results to [upper-level administrators], and we worked our way to the top. I actually had to present that at the board of governors because it was part of our program review. I explained, ‘This is a technology problem. We have a deficiency on the campus, and it needs to be corrected.’ And this year we were able to have the laptop farm with 30 laptops, so the problem was corrected, but it was a chain of command. They worked very hard to help me with the problems. Any problem I have, they are right on it.

The administrator at Eastern noted that the president of that college has experience in the workforce area of community colleges and has been supportive of the wind energy program and other workforce programs. The Eastern instructor, too, noted the support of the president:

> We lucked into Dr. T. He's a very dynamic type of person He's the president. I don't know how long he's going to last, but he's wanting this college to grow, so he's out beating the bushes. He's getting Eastern out there. A lot of people don't realize what's up on the hill.

Not surprisingly, not every action taken by the upper-level administration is embraced by administrators at the program level. One administrator noted that the administration forced the deans to cancel classes that had fewer than 10 students, despite the fact that deans had calculated that the college made money if just six students were enrolled. Nevertheless, several classes with nine students were cancelled two days before classes were to start: "They make decisions that we don't understand their reasoning. They have a magical number in the budget, and it's 10, not nine, but 10. But we see the faces. We see the students who really need this."

Instruction

Along with leadership, administrators noted the importance of instruction to the success of community college programs. The state administrator observed: "If that program really engages students, those students become excited and energetic about the program because of the faculty member. It goes back to personnel." The former community college president noted, "If you have a person teaching in that program who is not an effective teacher, someone who's not effective in teaching that adult population they are going to be working with, if it's someone who hasn't had real-life experience in that field, the program is not going to successful."

The program directors at the three community colleges also emphasized the importance of instruction to the success of their program. The administrator at Eastern observed:

> [Faculty] make or break it. Absolutely. If the faculty — if they can't work with people, if they don't have the personal skills, because we as a small community college . . . we do a

lot of hand-holding of people who come in because a lot of people are adults. They are very nervous about coming back to school.

The administrator at New River indicated that finding effective instructors is critical to the success of the program: "Every course has course content standards. If the faculty aren't teaching what they should, especially in a program like paraprofessional, it's going to hurt when it comes to the [licensing exam]." She described an adjunct who had been hired on another campus to teach about classroom management; instead of teaching the required content, the instructor had the students watch movies and do crafts. The adjunct will not be hired back, but the damage is done, the administrator observed. Those students will have trouble passing required exams and may face challenges in getting a job because they do not know enough about classroom management: "[Employers] are going to hire the person who as a clear plan for how to manage that classroom. [Students] only take that class once, and their instructor is not teaching them what they need. They're hurting."

Hands-on training is a vital element of many occupational programs and was viewed as essential by most of the participants. The respiratory care students at Southern train in a classroom and in clinical settings at different hospitals in the region. In the classroom, they practice what they will do in the hospital setting. One student described the hands-on training:

> We all do real-life demonstrations. It's right there in front of you, and you have to think fast. They want you to have the reality as if you were here in the hospital working on a patient, instead of waiting until you get here and try to see what it's like.

As in the respiratory care program, the wind turbine program relies extensively on hands-on training. During one class, the students and the instructor went outside to practice with equipment that was used to detect underground power lines. They took turns carrying the tool

around until the lines were located. The instructor indicated that the program works because students receive experience with the equipment:

> When you're working with equipment, no matter how many books you read, that's not the same as taking a piece of equipment apart. You can read a book about taking that piece of equipment apart, read about stresses, your torque you need to do, but until you tear the gearbox apart and get grease all over you, you're not learning anything.

Students cited the instruction and the relationships with the faculty most often as the reason for their personal success in the program. One student noted that the instruction required her to think critically about how to handle different situations in the classrooms. She has already put into practice what she has learned at the day care where she works:

> [The questions] were more like for me to think what I would do. That was hard. There were child abuse cases and bullying. How do you think they handled it? How would you handle it? It was hard, but it made me really think. The management models they gave to use in your classroom, and the techniques that they studied about, I tried to use.

A student at Eastern observed that the instructor, a former engineer in the timber industry, once had a hard time explaining things in a way that students could understand. The student noted that the instructor had improved his instruction over time: "So in two years that he's been teaching, he may still be a little bit above us, but he learned ways to explain things. He's come a long way at it." The program, he noted, offers a "solid foundation": "It teaches you the correct things, the correct ways, things you are going to need out there, especially the wind safety course." Another student at Eastern attended a four-year institution, but dropped out. He then enrolled in the wind program at Eastern and is on track to receive an associate's degree:

> At Potomac State, it was go to class, study, homework. Here you come in, we have a lecture, hands-on stuff, and you get to talk to S. on a one-on-one basis. It's not just, 'There's my teacher.' It's more one on one. It's better than 50 or 60 kids in a classroom getting lectured at.

Each of the community college programs that was studied relies on adjuncts to some degree. The state administrator noted that many programs at West Virginia community and technical colleges rely heavily on adjuncts and, in fact, "couldn't survive without them." He recognized, however, that the use of adjuncts affects both student engagement and employer engagement:

> Obviously they're not going to be as engaged because they are doing another job somewhere. And they are teaching part-time or maybe one class, and it's a real challenge to get adjuncts really engaged in the college. Let's say an adjunct faculty member is teaching a couple of courses for us. We're paying them to instruct in that course. We're not paying them to go out and meet with employers. We're not paying them go out and help recruit students.

The former college president also noted that students often do not recognize any difference between adjunct instructors and full-time faculty. Students go to them with questions that the adjuncts cannot answer:

> They think they should be able to ask you anything about the program, and you should be able to answer it. If I'm an adjunct and all I know is I'm teaching this one course, I don't even know how it fits into the curriculum, let alone when classes start for the fall semester, or when spring break is. Or what you do if you can't finish a course. I don't know any of the rules here. I don't know any of the policies and procedures. I just show

up and teach this class. It's a problem, but from an administrative perspective, we got whacked 7.5% last year, and haven't had any budget increases for the previous two years. It's hard to go out and keep hiring full-time faculty when you can't afford it.

Finding qualified people to work as instructors or program directors is one of the most difficult tasks faced by rural community colleges. The state administrator cited a program at a community college in one of West Virginia's larger cities that could not be implemented because the college could not find a faculty member to lead it. The task is more difficult in the more isolated parts of the state where the population is small. The state administrator noted that the pay offered by the community colleges is also a challenge. Potential employees often make more in the private sector, which makes recruiting difficult:

> Let's say you're at Eastern over at Moorefield. It's a sparsely populated area. It's more difficult to recruit sometimes, unless you recruit an individual who likes being in that environment, kind of an outdoor type person. So the upfront recruiting part is difficult, especially when you're not paying huge dollars. I think in a lot of cases, if you pay enough money you can buy good people. But you can't do that across the board because you don't have enough money to do it.

The state administrator indicated that the instructors they do find are often people in their 40s or 50s who have worked in industry for years and want a less hectic schedule. He cited nurses who no longer want to work rotations at a hospital: "They want to get out of that environment. Thank goodness some of them want to do that. We'd have a hard time."

Southern did a national search for a program director for the respiratory care program and received just a handful of responses. The program director who was eventually hired indicated that the position of clinical director for the same program was also hard to fill: "We did a search,

the same way they did for me. It turned up nothing in the area. There was no one qualified." The college ended up hiring someone to fill the post on an interim basis until another respiratory therapist finished her college degree and qualified for the position.

In rural areas, where potential instructors are in short supply, administrators indicated that they tapped their own networks to find the right people. The clinical director who was eventually hired at Southern had once trained the man who was the program director of the respiratory care program. At Eastern, the administrator and instructor had worked together at a local manufacturing plant. The instructor indicated that their prior relationship was beneficial: "We've always worked with each other. So he and I have always been able to sit down and work out problems we have." At New River, the dean, a longtime educator, indicated she often reaches out to people she knows when she needs to hire adjuncts or full-time instructors: "I know who the good teachers are and lure them this way." She noted that the college does advertise the positions, but she relies on her contacts: "I pretty much have a network of people I know."

Student Support and Engagement

Occupational programs are successful when students move steadily through the program, complete certificate or degrees, and then find jobs. Administrators indicated that in order for students to achieve this kind of progress, they require support in many forms. The former community college president observed:

> You've got to have a full range of support services for those students. A lot of them have never been to college. A lot of them are going to be the first person in their families to ever go to college. They have no idea what to expect in terms of showing up on time, getting work done, [and] getting it in on time.

The administrators at all three colleges noted that their students often have complicated lives, with jobs and family obligations. The administrator at Eastern noted that working adults make up a large part of the small student body: "They are grown people. They have children, and they have sick kids and work. I'm sure it's not just us. With a small population, we have to do that. We can't run people away. We can't afford to lose people." The New River administrator also noted the challenges faced by many community college students: "They tend to have families, and they tend to have coal miner husbands who are not working. They have trouble getting to class or finding child care, more so than the dormitory schools." The New River administrator noted, however, that students in the education program there seem to fare better because they are focused on their goals:

> The reason they went into education is because of their children. They really want this career. It's just like a nursing student. You don't have as many problems with the nursing students. They know if they put in the work this year they are going to make good money afterward. They are focused. Same thing with teaching. The most problems we have are with the undecided students.

Student support at the community colleges takes many forms, including tutoring, formal academic advising, and informal counseling on the part of instructors and administrators. All of the administrators and instructors interviewed described efforts to help students in a variety of ways. The administrator at Eastern indicated that he inquires about students' work and family obligations before advising them about their schedules because he does not want them to become overwhelmed and quit the program:

> We do a lot of that, talking to them one on one, and they will tell me things I didn't really want to know, of course. But it's helpful that we understand where they are and we can try to help them.

The former president indicated that offering classes at times students can take them is one way colleges can be supportive of students. Several administrators noted that they make an effort to work with students' schedules. The New River administrator teaches classes on Saturday so students who work during the week can attend. She also takes classes directly to preschools where the training is needed:

> Community colleges are very willing to do that. I design my classes on Saturday just to work around their schedules, but all community colleges I think are that way. Otherwise, they wouldn't keep students very long.

The administrator at Eastern noted that college personnel must be flexible when it comes to attendance, especially in the winter, because weather can make the roads treacherous.

> If there was a campus like Marshall or WVU, everyone lives there. I don't cancel classes. You can walk, you can ride the PRT [Personal Rapid Transit at West Virginia University]. You can get to class. But out here we've got people coming from six counties. They might be coming from Tucker County, and you might be fighting snow up there today. We have to more flexible with attendance.

In addition to the instruction, students cited support they received as important elements in their own success. One student from Southern who raised her children before attending college recounted her initial experiences as she was enrolling. She indicated that the support she received helped her navigate the complicated process:

I was a nervous wreck when I first went trying to get accepted in and apply. I didn't know how to do anything as far as how to apply for financial aid or classes. I didn't know anything. I was so dumb. After I got there, everyone at Southern was really helpful.

Students in the education program at New River noted that the administrator helped them determine what classes they needed to graduate. One student indicated that the small size of the college benefits the students: "We're such a small community college. Everyone knows you. The teachers wave at you. They try to help you. It's really a good program, and they try to help you advance." A student from Eastern also noted that the administrator and instructor are helpful anytime a student has a problem: "If you're having problems, they point you in the direction you need to go to find help. If they can't help you, they'll help you find help."

The students indicated that instructors and administrator also counsel them about finding work. One Southern student observed that the administrator and instructor advise students about how to handle themselves in the hospitals where they eventually may be hired and employed. The student recounted the advice she received: "Even with getting a job, how to present yourself. How to act. Don't go in there and act like you own everything, you know. Present yourself well and demonstrate your skills well, especially when you're getting a job." A student from Eastern also noted the help he had received from an instructor on finding work: "S. has been at me to get a resume together, and trying to help me find a job around here and stuff like that. It's not just that you're out there on your own."

The amount of support that students receive in the respiratory care program is notable. The design of the program, with students traveling through as a cohort, likely contributes to the supportive environment. One student noted: "We're like family. We've spent a whole year together." The program director indicated that a sense of trust must be cultivated:

> You have to form that relationship. They have to trust you, and you have to trust them. Because when you send them out, they represent me and they represent Southern, and I have to make sure they are going to follow through with what they know.

The clinical director described the students as "family" and her role as the "mother." She indicated that she received the same kind of support when she attended a community college program: "When you have that feeling that someone actually cares whether you make it or not, I think it has a big bearing on whether you finish." Now she puts her "mothering skills" to work when it appears that a student is not doing well in the program:

> I sit them down and talk to them like I would talk to my child. 'You just don't throw it away. You might never get the opportunity again.' There's one student working at a gas station. I think, is this what you want to do the rest of your life? At least if you have this, you have a career. Nobody can take it away from you. If you choose not to do it the rest of your life, that's fine. But don't throw it away.

The program director indicated that some of their students often lack support at home, and that he and the clinical director provide that support. He described a situation in which a student was not showing up for her clinical training because the tires on her car were going flat. He appealed to the foundation board for Southern, and the board purchased new tires for the student: "We have to identify those challenges and help the students." Support for the students in the program does not end when they graduate. The program director indicated that students may find themselves working in hospitals and in need of guidance:

> I always tell my students they have six months they can call me at any time. I've had students take me up on that offer. They call in the middle of the night. It doesn't happen often, but I've had it happen.

Relationships with Business and Industry

Administrators indicated that another key factor to the success of occupational programs was "employer engagement," the relationship to the industry being served. The state administrator indicated that community colleges are encouraged to work with a "sector," or a group of businesses from one industry. The sector advises college administrators on numerous issues, including the types of skills that should be taught. Beyond offering advice about the program's curriculum, employers donate equipment, refer potential students to the program, and hire program graduates. The administrator at Eastern observed, "All these people are going to be hiring our students, so they need to be involved in what's happening."

During the development of the wind energy program, administrators at Eastern brought together representatives from industry who indicated the kind of skills required by the technicians working on wind turbines. The college started with curricula provided by other colleges that have wind energy programs:

> We took that, and got our groups together, and looked through the curriculums. It was quite a day. And we had someone from the chancellor's office to muster that together. We looked at those, and some the industry people would say, 'You don't need this, but you do need this, or you need to add this.' That's the thing that really helps with the curriculum is we have buy-in from the industry.

The administrator indicated that the original group evolved into the program's advisory group, called a "sector" by the college. The administrator tries to bring that group together four times a year to gather input on the program: "We believe our program is relevant. The things we are teaching are important." Familiarity with industry representatives also helps when students are seeking employment:

> Students say, 'Who's hiring?' Well, here are the guys who are hiring. I can give you their names. I don't place you. You've got to apply, get a resume together, and all that stuff. But we can give you their names. They know us, and they know what we're teaching.

At Southern, the advisory group was formed while the program was being planned. On the board are representatives from the local hospitals where students do their clinical training. The administrator indicated that the input and support they receive from the advisory board is critical:

> They tell us what we're doing right and what we're doing wrong. They tell us how many to send and how many not to send. They keep us apprised on the job market, and they keep us up to date on the new technology that's coming through. They also provide support for the program. If there's a piece of equipment that they are retiring, they will hand it over. 'Here, teach with it.' We depend on that support.

Because the students are working regularly in the different hospitals, the students are observed by members of the advisory board. The program administrators noted that they receive feedback about their students and the training they are receiving in the program:

> They watch them work over that two years, and they can identify weaknesses that we can't always see. We depend on that feedback before it gets too late and before they are actually at the boards. We depend on their feedback to make decisions about what they are doing in the classroom.

Advisory boards can present challenges to college administrators, however. One administrator indicated that some advisory boards turn into "brag sessions" for their members, and it becomes hard to keep the group focused on constructive criticism. The former president

observed that advisory boards suffer when members remain on those boards too long, making it difficult the college to keep up with current information about the industry:

> The idea is that you have people out there so when there's a change in equipment, there's a change in technology, there's a change in marketing, they are keeping you on top of that. So that the graduates from your program have the skills that are in demand today, not the skills that were in demand five years ago or 10 years ago.

The former president also noted that it can be difficult for administrators and others to accept criticism from the board about their program:

> You've got to be able to listen to that and go back and make changes to the program. That goes back to the program director being the right kind of person. That's part of the strength of a community college is being able to change, being nimble, being able to get curricula revised quickly, not spending two years in committee meetings trying to decide whether this is really the right thing to do or not.

SUMMARY

This research points to five particular elements that are important to the success of occupational programs, including an obvious need for the program on the part of employers and students. Beyond demand, however, effective leadership on the part of the program director appears to be critical to program success. According to the participants, qualities that are important in an effective program director are knowledge of the industry, a motivation to teach about the industry, and the ability to communicate with students and others. Effective instruction is also important to the success of occupational programs at community colleges. What the instructors teach, how they teach, and how they engage with students all appear to be important to the success of the program. Another critical factor is student support. Student participants in

this study made special note of the support they received on an informal basis from administrators and faculty members, repeatedly mentioning how helpful this kind of mentoring was to their success. The final factor that appears to be necessary is a close relationship with business and industry. Both the wind energy program at Eastern and the respiratory care program at Southern benefit directly from their collaborations with industry. Representatives from industry serve on the programs' board and provide input as to what should be taught. Those businesses are also considered sources of future employment for students in those programs.

Creating and implementing occupational programs at rural community colleges is a complex process, and the long-term success of programs depends on many factors. These five factors, however, appear to be particularly important to the success of occupational programs at rural community colleges.

CHAPTER 5

CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS

PURPOSE

The purpose of this qualitative study was to examine the factors that determine the success of occupational programs at community colleges, primarily those in rural areas. The participants chosen for the study were administrators, instructors, and students associated with three rural community colleges in West Virginia, as well as a state-level administrator and a former president of a West Virginia community college.

The researcher chose this subject because of the difficulties faced by many community colleges in developing new occupational programs. Even under perfect circumstances, designing and implementing successful occupational program is a complex venture requiring extensive planning and careful execution. New programs often require additional funding for equipment and instructors, and programs that falter must be phased out, posing additional challenges for the colleges. Nevertheless, community colleges are expected to help improve their local, regional, and state economies by creating programs that meet the workforce needs of local businesses and industry (Dougherty and Bakia, 2000; Kasper, 2002-2003). This presents a challenge for community colleges in rural areas where industry is limited and the economy is stagnant.

West Virginia's community colleges offer an unusual opportunity to study the development of occupational programs in rural settings. A reorganization of higher education in West Virginia that occurred between 2000 and 2009 liberated the state's community and technical colleges from their prior affiliations with four-year institutions, giving them both independence and additional funding for program creation. Among the developments during this period was a change in the policies governing community colleges that allowed them to

implement new occupational programs and operate them for three years without state oversight. The 10 community colleges responded by developing 287 new programs in diverse fields. The intent of this study was to examine the factors that led to the development of successful occupational programs at three rural community colleges in West Virginia. The results of this study are expected to be useful to administrators at community colleges facing similar challenges.

METHODS

The qualitative approach that was taken in this descriptive study recognized that the faculty and administrators who created and implemented new occupational programs at West Virginia's community college have extensive knowledge about what made those programs successful. Students also provided an important perspective on what made those programs work for them. One state-level administrator and one former community college president were also included in this study because of their extensive experience with the community college system. Cresswell (2003) indicated that this constructivist approach recognizes the complexity of viewpoints, as participants "construct" the meaning of the situation.

Purposeful sampling of career-technical programs was employed for the selection of those programs to be studied. Using purposeful sampling, the researcher selects cases that are information-rich and illuminate the questions under study (Patton, 2002). This strategy of selecting a small number of successful programs to study is a common one in qualitative research; as Patton noted, "special cases" often are "a good source of lessons learned" (p. 7).

The three community colleges were chosen because they serve the most rural counties of the state as identified by the Rural Policy Research Institute (2009), which relied on 2007 figures from the U.S. Census. Administrators at the three community colleges were asked to identify

successful occupational programs for study, and the three programs they selected represented different areas of study: allied health, education, and technology. Two of the programs were less than 10 years old, while the other was a well-established program.

Interviews were completed with the participants in person and over the telephone. The interviews were semi-structured so that the participants answered many of the same questions, while also being encouraged to expand on the topics addressed. In addition, observations were made of classroom experiences at the three community colleges.

The data analysis followed the steps outlined by Cresswell (2003). The first step was organizing and preparing the data, which included transcribing interviews and typing field notes. The second step involved reading through all the data to obtain a general sense of the information and to reflect on its overall meaning. The third step was a detailed analysis with a coding process that was used to generate categories for analysis. The final step in the data analysis involved making an interpretation of the data.

The research was guided by a conceptual framework that was developed from case studies of other successful community college programs around the country (Adams and Bortz, 2010; Allen, 2002; Bailey, 2004; Bombach, 2001; Cejda and Rhodes, 2004; Curtis, Coleman, Saxton and Kelly, 2004; Dolce, 2004; Horton and Birmingham, 2002; Irlen and Gulluni, 2007; Jeffrey and Alvarez, 2010; Knudson, 2004; Krull, Graham and Underbakke, 2009; Kube, Dempsey, and Pohlman, 2008; Landt, Knazze, and Sud, 2001; Pagenette and Kozell, 2001; Pauley, 2001; Raley, 2000; Sundberg, 2002; Thigpen, 2006; Sink and Hutto, 2004; and Tyler, 2002). Researchers who examined these programs identified a number of factors that helped them succeed, including effective administrators, involved faculty members, and relationships with business and industry. The research questions for this study evolved from the conceptual

framework developed from the case studies. The overall research questions used to guide this study were as follows:

- To what extent, if any, has the degree of leadership at the program level affected the success of the occupational program?
- To what extent, if any, has the participation of faculty experienced in the field affected the success of the occupational program?
- To what extent, if any, has the degree of collaboration with business and/or industry affected the success of the occupational program?
- To what extent, if any does the trajectory (i.e., declining, steady or emerging) of the business/industry targeted by the program affect its success?

RESULTS

The results from this study align with previous research on programmatic success at community colleges, while illuminating several areas that have received less attention.

Demand

The case studies (cited above) that were used to develop the conceptual framework for this study demonstrate that demand is a key factor in successful occupational programs. For example, Adam and Bortz (2010) described a biotechnology program at a Pennsylvania community college that was developed in response to an identified need in the industry. As described by Allen (2002), an Illinois community college developed a training program for electrical workers in response to need on the part of a union. As Kasper (2009) noted, the success of community college students depends largely on the job opportunities available and the number and skills of other applicants for the same job: "All else being equal, the larger the number of job

opportunities, the more likely each student is to be successful in finding what he or she wants . . ." (p. 3).

In this study, the wind turbine technology program at Eastern and the respiratory care program at Southern were developed in response to an immediate need for those skills by area employers, while the paraprofessional program at New River meets the ongoing demand for aides and teachers at preschools, day cares, and schools in that region of West Virginia. Participants, including the state-level administrator and the former president, indicated that without that demonstrated need, occupational programs like these would falter.

This study indicates that demand on the part of students is often a major concern, at least for rural community colleges. As McNutt (1995) noted, rural community colleges face less competition for their curricular offerings, but they may lack the critical mass of students to begin new programs. In addition, the institutions usually have smaller administrative staffs, so assessing student interest in new programs often falls to an administrator who has no training or skills in institutional research or curriculum development (McNutt, 1995). The state-level administrator who participated in this study described the difficulties in attracting students, especially recent high school graduates, to some community college programs. One community college administrator described efforts to name programs so that they appeal to students and their parents, while another college administrator described the complications that arise when programs must be phased out because of a lack of interest on the part of students.

Leadership

Much of the research on community college leadership has focused on the role of the president. In studies of community college programs, the credit for its success often goes to upper-level administrators, as well. In their case study, Pagenette and Kozell (2001) noted the

importance of leadership to the success of the occupational program, but it was the leadership of upper-level administrators, including those in charge of financial services, registration, and counseling, who received mention. In another case study of a successful program, Dolce (2004), too, noted the leadership of upper-level administrators, including the president, academic vice presidents, and dean.

This study, however, indicates that the leadership of the program director is critical to the success of occupational programs. Riggs (2009) noted that it is the lower-level administrators, such as the program directors, who often have the greatest impact on the actual operations of an occupational program. Riggs observed:

> While strong presidential leadership is a critical component to the long-term success of a college, the deans, vice presidents and other mid-level administrators are the ones who have the greatest impact on the actual operations, organizational priorities, and how the college really functions. The quality of the academic environment, meaningfulness of services for students, and support for the faculty are all driven by dedicated individuals in mid-level leadership positions and not out of the president's office. (para. 9)

This study also offers some insight into what qualities are important in an effective program director: their familiarity with their industry, their motivation to teach the skills required of that industry, their communication skills, and their willingness to engage students and employers. In reflecting on their own leadership, program directors who participated in this study indicated that their most important contributions to the success of their programs are student engagement, employer engagement, the hiring of effective instructors, and program review, including accreditation.

Instruction

In their examination of teaching at community colleges, Grubb and Byrd (1999) found that occupational teaching at community college is "rich and complex, more so than teaching in academic subjects" (p. 99). Several of the case studies of existing occupational programs also recognized the importance of instruction to those programs (Allen, 2002; Bailey, 2004; Bombach; 2001; Cejda and Rhodes, 2004; Dolce, 2004; Horton and Birmingham, 2002; Jeffrey and Alvarez, 2010; Knudson, 2004; and Thigpen, 2006). In Torraco's 2008 study of nine occupational programs in the Midwest, students cited the applied learning experiences, such as labs and work-based learning, as the most beneficial formats for learning the skills they needed after graduation. Likewise, in this study, the students noted the importance of the hands-on instruction that they received and their ability to put into practice what they learned in the classroom. They also expressed an appreciation for the personal attention they received from instructors because of the small size of the classes.

In each of the three programs examined for this study, the program director also serves as an instructor. Two of the programs also had an additional instructor, while all three also relied on adjunct instructors to some degree. As the former president noted, community colleges in West Virginia face perpetual budget challenges, and therefore have little choice but to rely on adjuncts. Participants in this study observed that the quality of adjuncts varies and that adjuncts are unlikely to be heavily engaged with students or employees, which could affect the quality of the programs in which they teach.

As Murray (2007) and Murray and Cunningham (2004) noted, rural community colleges face challenges in hiring and retaining faculty because they cannot offer the same financial, cultural, and social advantages as urban community colleges. The state-level administrator in this

study indicated that the small population of rural areas and the pay disparity between the private sector and community colleges complicates the hiring process. The three community college administrators described their efforts to hire instructors and indicated that they tapped their own networks of people they knew when looking for qualified instructors. In two of the programs studied, the program director and the instructor had worked together previously in the private sector.

Student Support

This study indicates that student support is critical to student success, and ultimately the success of the program. Horton and Birmingham (2002) described a technology program funded by Microsoft that included counseling and tutoring for disadvantaged students. Cejda and Rhodes (2004) noted in their case study how the informal mentoring provided by instructors contributed to the success of Hispanic students in a program at a Texas community college. In this study, too, students noted the importance of the informal mentoring provided by instructors and administrators, noting the special help they had received from instructors and administrators that went beyond traditional tutoring and advising. For example, they described help in preparing resumes and advice about conducting themselves in the workplace. The value of student support was highlighted in the respiratory care program at Southern where the participants referred to each other as "family" and the program director encouraged students to call him for help long after they had completed the program.

The state-level administrator and the administrators at the colleges who participated in this study noted that many community college students often have family and work obligations that complicate their education. Indeed, most of the students who participated in this study were working while going to school, and many have children. The former community college

president indicated that a "full range" of support services is required for community college students to be successful. The college administrators emphasized efforts to work with students, including offering classes at convenient times and locations, and remaining flexible about attendance when the weather makes traveling treacherous. One of the administrators noted that accommodating students is a necessity: "With a small population, we have to do that. We can't run people away. We can't afford to lose people."

Relationship with Business and Industry

The study confirms what other researchers have found that a close relationship to the industry being served influences the success of some community college programs. Several researchers, including Adams and Bortz (2010), Curtis, Coleman, Saxton and Kelly (2004), Horton and Birmingham (2002), Irlen and Gulluni (2007), Knudson (2004), Krull, Graham and Underbakke (2009), Kube, Dempsey, and Pohlman (2008), Landt, Knazze, and Sud (2001), Pauley (2001), Raley (2000), Sundberg (2002), Tyler (2002), Sink and Hutto (2004), and Thigpen (2006), indicated that industry partnerships were central to the success of new occupational programs at community colleges.

This relationship between the industry and the program is especially critical to Eastern's wind energy program, developed with direct input from industry representatives. Industry representatives continue to meet several times a year to advise administrators about the program. The relationship between the hospitals and Southern's respiratory care project is also a critical one. Representatives from the hospitals where students do their clinical training serve on the program's advisory board. They observe the students in training and offer suggestions to administrators about what students should be learning.

The participants in this study also described challenges that come with working with advisory boards. The former community college president indicated that some members remain on advisory boards too long, making it difficult for the college to obtain current information about the industry. The former president also indicated that it can be hard for community college administrators to listen to criticism of their programs and make the necessary changes.

IMPLICATIONS

While there may be no magic formula that community colleges can follow to ensure the success of a program, this study indicates that there are important steps for administrators to take from the very inception that can set a program on the path to success. The hiring of the right people to lead the program and to instruct students appears to be critical. With the right people in place, other important elements may fall into place — student support and engagement with business and industry.

This study focused on rural community colleges, and it became clear from the interviews that rural colleges do face tremendous hurdles when designing and implementing new programs. This study did not compare rural and urban colleges, however, so it is unknown whether the factors that influence the success of rural programs vary substantially from the factors that would influence the success of programs at more urban community colleges.

AREAS FOR FURTHER STUDY

This research was limited to three community colleges in West Virginia. Additional study could indicate whether the five factors identified (i.e., program demand, leadership, instruction, student engagement and support, and relationships with business and industry) apply to other community colleges, either urban or rural or both. In addition, the role of program director merits additional study. Often program directors come from the industry served, rather than through the

academic channels of higher education. Their experiences in adapting to the higher education environment merits further study. In addition, the support required of community college students seems to extend beyond traditional tutoring and advising. Community college students appear to benefit greatly from the informal mentoring offered by instructors. Yet if community colleges rely heavily on adjuncts, how can that mentoring be provided? This subject, too, warrants additional research.

One factor that emerged late in this study that merits more attention is the role that selection of students plays into their success. Community colleges in West Virginia, as elsewhere, are open access institutions that accept most anyone with a high school education. The respiratory care program at Southern is the only one of the three programs in which students are required to apply to separately and be selected, and that program has proved to be highly successful: 85% to 90% of each class completes the program; 90% pass the required certification exam, and nearly 100% find employment in their field. The administrator noted that the selection process is important to the success of the program: "The selection process is key to the success or failure. If you don't have a tried and true system of selection, you can get a whole class of students who will never make it. And it can be detrimental to the whole program."

Interestingly, the administrator at New River indicated that some winnowing of students does take place even without a special admittance process. She observed that the initial classes are difficult and require significant time in the classroom for observation. The administrator noted that that requirement alone often deters students who would not have fared well in the program.

CONCLUSION

The community college system in West Virginia was reorganized with the goal of making the community and technical colleges more responsive to the needs of industry. They responded by creating hundreds of new programs in a wide variety of areas. This development offered an opportunity to examine the creation of new programs and what makes some succeed. Is there a secret ingredient that some programs have that others do not? The most fortunate programs are those that have a demand in place. Assuming that a demand exists, then the most critical ingredient appears to be personnel: the program directors and the instructors. Administrators who take special care in the hiring of the best program directors and instructors will take important steps toward ensuring the success of their programs. Rural community college administrators, however, will always face the additional challenge of having a small pool of people from whom to choose. Those who do find the right people will be more likely to see the fruits of their labor: successful students who complete the program and find employment in their chosen field.

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APPENDIX A

INTRODUCTORY LETTER TO DEANS

851 Maple Road
Charleston WV 25302
January 10, 2013

Robert Eagle
Academic Dean
Eastern West Virginia Community and Technical College
315 Eastern Drive
Moorefield WV 26836

Dear Dean Eagle,

As a doctoral student at Marshall University, I am studying occupational programs at rural community colleges. My dissertation focuses on the development and implementation of programs that have been successful in meeting the needs of businesses and industries, and your institution has been identified as a model. I am hopeful that what I learn may prove valuable to other community college administrators in West Virginia and elsewhere who are faced with similar challenges. I am seeking your permission to study the automotive technology program at Eastern.

My study is under review by the Institutional Review Board of Marshall University, which requires that I request permission from the campuses I wish to visit prior to their approval of the study. After receiving approval, I will forward the necessary documentation to you. I would like to visit the campus and speak with administrators, faculty members, and students over 21 who are involved in the program. The names of all participants will remain confidential, and all will be provided with consent forms that indicate their willingness to participate in the study prior to any interviewing. I would also like to observe the program during my visit, if that meets with your approval as well. Any follow-up questions I have subsequent to my visit will take place through email or by phone, and all participants will have the opportunity to view their interview transcripts should they wish to do so.

I sincerely appreciate your consideration. You may communicate your decision to me by noting it on this letter and returning it in the enclosed postage-paid envelope, by email at bcalwell@suddenlink.net or by phone at 304-993-8910 (cell) or 304-345-8167 (home). I look forward to hearing from you.

Sincerely,
Becky Calwell

APPENDIX B
INTERVIEW QUESTIONS

Questions for administrators:

When was the program created?
Who created it?
How was it funded?
Did you identify a need for it?
Is there an advisory group?
Is it active? What does it do?
Does the health of the economy/industry affect the program?
Who has been hired to teach in the program?
What kind of experience do they have?
What kind of influence do they have on the curriculum?
How have faculty contributed to the success of the program?
What kind of support do administrators provide?
How have they contributed to the success of the program?
How is enrollment/graduation/placement?
How else do you measure success?
Have you done a program review?
Do you get feedback from the law firms/businesses?
What problems has the program faced? How were they resolved?
What is the future for the program?

Questions for faculty members:

Were you involved in the development of this program?
If so, how?
Was there a need identified for the program?
How was it identified?
How long have you been teaching with the program?
What courses do you teach?
What is your experience in the field?
What are the challenges of the program?
How do you feel the faculty affect the success of the program?
Who is in charge of the program?
How does that person contribute to the success of the program?
What kind of support do other administrators provide?
Is there an advisory group?
Is it active? What does it do?
Are there other ways you work with business/industry?
Does the health of the economy/industry affect the program?
How is enrollment/graduation/placement?

How else do you measure success?
Have you done a program review?
What problems has the program faced? How were they resolved?
What is the future for the program?

Questions for students:

How did you learn about the program?
When did you enroll?
What interested you in the program?
How far have you progressed?
When do you expect to finish?
Have you met the administrators of this program?
If so, what have you gained from contact with administrators?
How are the instructors in this program?
What do you think of the classes?
Do you have a chance to interact with the instructor outside of class?
How have they helped you?
Have you met anyone in this industry who is associated with the program?
How have they helped you?
Who has been the biggest influence on your success here?
What are the strengths of the program?
What are the weaknesses?
Who appears to be the most responsible for its success? Why?

Questions for state-level administrator and former community college president:

Why are some occupational programs more successful than others?
How does the program director influence the program?
What qualities are important in a program leader?
How do the instructors influence the success of a program?
Does the use of adjuncts affect the program? How?
How much of a program's success is linked to what industry is served?
What can colleges do to improve the success of their programs?

APPENDIX C

INSTITUTIONAL REVIEW BOARD APPROVAL

MARSHALL UNIVERSITY
www.marshall.edu

Office of Research Integrity
Institutional Review Board
401 11th St., Suite 1300
Huntington, WV 25701

FWA 00002704

IRB1 #00002205
IRB2 #00003206

February 27, 2013

Barbara Nicholson
MUGC

RE: IRBNet ID# 385587-1
At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Nicholson:

Protocol Title:	[385587-1] Making it Work: Factors That Influence the Success of Occupational Programs at Rural Community Colleges	
Expiration Date:	February 27, 2014	
Site Location:	MUGC	
Submission Type:	New Project	APPROVED
Review Type:	Expedited Review	

In accordance with 45CFR46.110(a)(7), the above study and informed consent were granted Expedited approval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Chair for the period of 12 months. The approval will expire February 27, 2014. A continuing review request for this study must be submitted no later than 30 days prior to the expiration date.

This study is for student Rebecca Calwell.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral) Coordinator Michelle Woomer, B.A., M.S at (304) 696-4308 or woomer3@marshall.edu. Please include your study title and reference number in all correspondence with this office.

APPENDIX D
CURRICULUM VITAE

REBECCA K. CALWELL

EDUCATION

Marshall University
Doctor of Education in Educational Leadership, 2014
Marshall University
Master of Arts in Humanities, 2000
. **DePauw University**
Bachelor of Arts in English and history, 1987
Exeter University,
Overseas study, January-May 1986

PROFESSIONAL EXPERIENCE

2013- present Freelance writer, editor, researcher
2010-2013 Editor, West Virginia Humanities Council, Charleston, West Virginia
2000 to 2010 News editor, *Charleston Daily Mail*, Charleston, West Virginia
1995 to 2000 Copy editor, *Charleston Daily Mail*, Charleston, West Virginia
1987 to 1995 Reporter and columnist, *Charleston Daily Mail*, Charleston, West Virginia