

THE GREAT RECESSION (2007–2009), MOTIVATION FOR VOCATIONAL
CHANGE: A CASE STUDY CONDUCTED AT
WASHTENAW COMMUNITY COLLEGE, ANN ARBOR, MICHIGAN

By

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This thesis is submitted in partial fulfillment of the requirements
for the degree of

Doctor of Education

Ferris State University

September 2016

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ABSTRACT

This research study explored the effects of the Great Recession (2007-2009) on enrollment in three Nursing and Health Science programs at Washtenaw Community College. The purpose of the study was geared toward assessing whether the Great Recession was the primary motivating factor for students selecting academic training in Physical Therapy Assistant, Radiography, or Registered Nursing. To assess students' motivation for enrolling in these particular programs, an on-line research survey was created. Data for this study were collected using an online survey that was a combination of qualitative and quantitative questions. The data for the survey were analyzed using ANOVA, descriptive statistics, and qualitative coding. The ANOVA analysis indicated no statistical significance for the Great Recession being a motivating factor in students' decision for enrolling. Instead, the impact of the Great Recession appears to have influenced students' decision for seeking future economic security, stable employment, opportunities for advancement, and being able to pursue additional educational training within their particular medical field at a four-year institution.

ACKNOWLEDGEMENTS

I would like to offer my sincere appreciation and thanks to my dissertation committee members: Committee Chair, Noreen Thomas, EdD; and committee members Gus Demas, EdD, Darby Hiller, PhD, and Amy Teproovich, EdD for their continued support, encouragement, and learning opportunities provide me during my dissertation journey. Besides my dissertation committee members, my sincere thanks also goes to the Doctorate in Community College Leadership (DCCL) administrators at Ferris State University: Roberta C. (Robbie) Teahan, PhD, Director; Sandra J. (Sandy) Balkema, PhD, Dissertation Director; and Andrea Wirgau, EdD, (former Assistant Director).

Besides my dissertation committee members and the DCCL administrators, I would also like to thank the administrators, faculty, and staff at Washtenaw Community College in particular: Rose Bellenca, EdD, (President of Washtenaw Community College); Joan Myers-Dickinson, PhD (Editor); Faculty members: Frank Gerlitz, PhD; Mary Mullanond; and Thomas (Tom) Zimmerman; and staff members: Derek F. Anders and Nichole A. Marbury. I would like to express my gratitude to Brenda Gillies for supporting me throughout my dissertation journey. Finally, to the unidentified Nursing and Health Sciences survey respondents at Washtenaw Community College, thank you.

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CHAPTER 1: TRANSITIONS

When a neighbor loses a job it's a recession; but when you lose your job it's a depression
President Harry S. Truman

Introduction

The Associated Press is recognized for naming the Great Recession, which officially began in December 2007 and ended in October 2009. It has been identified as the second worst recession in the last fifty years with over 8.8 million workers in the United States losing their jobs (Zuckerman, 2011). The Great Recession negatively impacted the economy by often causing copious jobs losses and reduced hours. A recession is described by economists as a downturn in the economy that is indicative of a decline in the gross national product for two consecutive quarters (Siegel and Shim, 1995). Hussain (2004) defines a recession as a period “of significant decline in total output, income, employment, and trade, usually lasting from six months to a year, and marked by widespread contractions in many sectors of the economy” (p. 105).

Prior to the start of the Great Recession, the signs of an economic slump or downturn were present for several months with a stagnated economy, slow production, and subsequent job losses (Rosenberg, 2010). It was also during the Great Recession that community colleges across the nation experienced extraordinary growth when “more than 1.4 million additional Americans turned to community colleges to help them realize their educational aspirations or acquire the skills to hang onto a job” (Baime, 2011, para. 1). The impact of the Great Recession on community colleges has been recognized as the

bridge for providing workforce education that was necessary for individuals requiring job retraining or upgrading of their job skills. Community colleges have also been recognized for being the catalyst for helping individuals in acquiring the educational training needed for making a career change. Community colleges serve a diverse population, and their open-door admission policy makes them accessible to everybody. The open-door at community colleges has also done a wonderful job of helping a diverse mixture of individuals to get an education (Merisotis and Jones, 2010).

The College Board Advocacy & Policy Center (2010) describes in its *Trends in College Pricing* why some individuals were enrolling in community colleges for the first time and suggested that “some are returning to complete credentials they began years ago, and some are seeking training for new careers” (p. 7). Babette Audant, Executive Director of the Center for Economic and Workplace Development at Kingsborough Community College in Brooklyn, NY, further explained, “We have a lot of people in their 30s and 40s coming back to school for retraining. About 25% of them have degrees, either Associate degrees or Bachelor’s, but their skills are a little rusty, or their training is no longer relevant” (cited in Leary, 2012, p. 30). Community colleges today are viable resources for helping individuals improve their current job skills or acquire new ones. Community colleges, with their open-door admission policies and lower tuition rates and fees, provide a viable alternative for individuals seeking career re-tooling or vocational change necessitated by the Great Recession (Leary, 2012).

In Harriett Coles’ *Sense & Sensitivity* column (2013, June 23) in a response entitled “*Chased My Dream, Too, Chicago*” a contributor wrote, “I worked in a factory for more than 25 years. I went back to school and got my nursing degree when I was 48!

That was ten years ago. I have been an oncology nurse for all of those years, and I love it! It is NEVER too late” (p. E6). In response to “*Chased My Dream, Too, Chicago*,” Cole responded “...how we think affects what we become. What we say directs our steps. Being able to think, say or act based on the greatest potential you can imagine for yourself opens the door to any possibility in your life” (p. E6). This scenario is representative of why students are enrolling in community colleges for career re-tooling due to the continuing effects of the economic and job losses from the Great Recession during which, “Overall employment took a huge hit and high wage/low education jobs disappeared” explained Metzger (2013, December 1, p. C1).

This chapter will introduce the Great Recession (2007-2009), Development of Junior Colleges, Vocational Education, the Michigan Community College Act, President Obama’s Support of Community Colleges, Study Introduction, Purpose Statement, Methodologies, Limitations, Summary, and Definition of Terms.

The Great Recession

Since World War II (1941–1945), there have been 11 confirmed recessions in the United States whose durations have lasted 10 months on average (Lisak, 2011). The Business Cycle Dating Committee of the National Bureau of Economic Research (NBER) was founded in 1920 and is responsible for identifying the stop and start dates for a recession in the United States. It uses the definition of Gross Domestic Product (GDP) for defining a recession. GDP is defined as the total goods and services produced in a nation over a given time period, usually one year (Rosenberg, 2010; Hussain, 2004). In addition, GDP recognizes “...personal consumption expenditures, gross private domestic investment, government spending, and net exports” (Siegel and Shim, 1995, p.

192). Following World War II, economic indicators such as unemployment and the GDP could be compared to each other much more easily than during the Great Depression (1929–1941) because of the improved tracking and reporting requirements of this data (National Bureau of Economic Research, n.d.). Currently, the federal agencies responsible for reporting economic information (unemployment and GDP) include the following bureaus: (1) Bureau of Economic Analysis (www.gea.gov), source of Gross Domestic Product (GDP) information and data; (2) National Bureau of Economic Research (www.nber.org), lists the dates and durations for a recession; and (3) Bureau of Labor Statistics (www.bls.org), a federal research organization that publishes data that reflects the state of the U.S. economy (Consumer Price Index, unemployment rate, wages, and other economic measures).

During the Great Recession in the United States, over eight million individuals lost their jobs. Workers ages forty-five and older represented a disproportionate share of the long-term unemployed. Those out of work for six months or longer had an unemployment rate of 6.4%, the highest since at least 1948 (Rosenberg, 2010). The U.S. Bureau of Labor Statistics (BLS) classifies individuals as unemployed if they are not currently employed, they have been actively looking for work in the previous four weeks, and they are currently available to work. The BLS defines unemployment as the number of unemployed individuals as a percentage of the total workforce. The long-term unemployment rate is defined as the number of individuals unemployed for 27 weeks or longer as a percentage of the total workforce. Before the Great Recession, the national unemployment rate was 5.0%; however, at the end of the recession, by June 2009, it was 9.5% (www.bls.gov/spolight, n.d.). (See Appendix C: Unemployment rates with long-

term unemployment rates.) During the Great Recession, California, Michigan, and Nevada recorded the highest jobless rates above 10%. (See Appendix D: Unemployment rates by state.)

In October 2009, the unemployment rate for Michigan was 15.3%. Gould-Werth and Burgard (2012), speculated this was "...likely because of the area's [Michigan's] high number of workers in the auto and other manufacturing industries which were hard-hit by the Great Recession" (p. 1). Economists Grimes and Fulton (2012) of The University of Michigan Institute for Research on Labor, Employment, and the Economy, reported the seven counties of Southeastern Michigan (Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne) lost was an astounding 351,000 jobs from 2000 to 2009 (Grimes and Fulton, 2012). Grimes and Fulton (2012) further maintained "Changes in the work-age population are important because they are a major potential source of long-run strength (or weakness) in labor force growth.... Labor force participation can vary considerably across age, race, and gender cohorts in the population" (p. 11). In addition, the labor force participation of individuals aged 25 to 64 is critical to future labor force availability because there is a vital link "between population and the labor market" (Grimes and Fulton, 2012. p. 12). Knowing these facts, this research study was conducted to explore whether or not the Great Recession was the primary motivating factor that influenced an individual's decision to enroll in Washtenaw Community College for vocational training in either Physical Therapist Assistant, Radiography, or Registered Nursing.

Development of Junior Colleges

University of Chicago President William Rainey Harper (1891–1906) and University of Michigan President Henry P. Tappan (1852–1863) have been recognized as the educational leaders who were most beneficial in the eventual development of junior colleges in the United States. Both these presidents were advocates who envisioned junior colleges as extension facilities for high school seniors to receive preparation for the first two years of baccalaureate study before transferring to a designated four-year baccalaureate university (Guthrie, 2003).

In 1901, Joliet Junior College opened as a collaborative relationship between University of Chicago President Harper and J. Stanley Brown, principal of Joliet High School in Joliet, Illinois. Joliet Junior College would offer general education and transfer courses that emulated the fifth and sixth years of instruction, which was equivalent to the first two years of instruction (freshman and sophomore) at a university. The targeted high school graduates were those with inadequate funding or those lacking the basic academic skills for a highly competitive college or university (Cohen and Brawer, 2008; Beach, 2011; Phillippe and Sullivan, 2005).

The University of Michigan's 4th president, Harry Burns Hutchings (1909–1920), with the support of the faculty, passed a resolution encouraging the establishment of junior colleges in Michigan. Following this resolution, a collaborative relationship was established between The University of Michigan and the Grand Rapids Public School Board. The relationship between these two organizations and Jesse Buttrick Davis, principal of Grand Rapids Central High School, was beneficial in establishing Grand Rapids Junior College [now Grand Rapids Community College] in September 1914.

Grand Rapids Junior College was the eighth public junior college established in the United States and the first public junior college established in Michigan. Grand Rapids Junior College primarily offered a general education curriculum based on The University of Michigan's academic requirements (mathematics, history, rhetoric and composition, German, Latin, biology, and physics), and the junior college served as the main transfer institution for the University (Grand Rapids Community College, n.d.).

Both Joliet Junior College and Grand Rapids Junior College have evolved and developed into comprehensive community colleges that offer occupational education, adult education and literacy, workforce development, and student support services (Joliet Junior College, n.d.; Grand Rapids Community College, n.d.): "Today's comprehensive community college is both a principal provider of academic instruction and a major provider of vocational preparation and workforce development through stand-alone adult training programs" (Kasper, 2002-03, pp. 14, 15).

Vocational Education

The 1990 Perkins Act defines vocational education as organized educational programs offering a sequence of courses that prepares an individual for employment in occupations that require either an associate degree or certificate. Vocational education programs are directly related to the preparation of individuals for paid employment in current or emerging occupations requiring training other than a baccalaureate or advanced degree (National Center for Education Statistics, n.d.). Following the Great Recession, the Bureau of Labor Statistics (n.d.) projects the healthcare industry will continue to add a substantial number of jobs to the U.S. economy between 2012 and 2022. The Bureau of Labor Statistics (n.d.) is projecting an increased employment in the

healthcare industry of 29% through 2022, compared to an average of 11% for all other industries. Registered nursing represents the second highest employment growth through 2022, followed by home health aides and nursing assistants (Bureau of Labor Statistics, n.d.). The Bureau of Labor Statistics (n.d.) also projects growth in the healthcare industry; however, further research is needed to explain an individual's selection of healthcare occupations programs of study at a community college.

Since Joliet Junior College opened in 1901 in Joliet, Illinois, public community colleges in the United States have evolved and today truly embody their collegiate function of providing the first two years of general education or liberal arts training in preparation for transferring to a four-year baccalaureate university as well as vocational training (American Association of Community Colleges, n.d.). Ricketts (2009) explained that community colleges today remain “true to their vocational and educational roots...also provide programs and services for other types of students as well” (para. 9). Guthrie (2003) asserts that students pursuing vocational education or career re-tooling programs may include (1) working adults seeking to upgrade or acquire new knowledge and skills, (2) underemployed and unemployed adult workers, and (3) older adults and retirees wanting to develop a new job skill or technical knowledge for personal self-improvement.

The vocational education movement of the late nineteenth century, the emphasis on technical education during the years of the Great Depression and World War II, the career education initiatives of the 1970s and the 1980s, and contemporary workforce-development have insured that vocational, technical, pre-professional, and para-professional programs are mainstays of the community college. (Guthrie, 2003, p. 444)

Community colleges today are also providing workforce development, articulation or customized training for local employers, and vocational education

programs that will terminate in either a certificate or associate degree depending on credit hour requirements (Kasper, 2002, 2003). Community colleges are also recognized for their diverse offerings of vocational education programs that are “designed to prepare students for the world of work” (The Carnegie Commission on Higher Education, 1970, p. 20). Registered Nursing was introduced nationally at several community colleges in 1958 as an associate degree program with funding support from the W.K. Kellogg Foundation and the Rockefeller family (Vaughn, 2006).

Michigan Community College Act

The Michigan Community College Act of 1966 (Act 331 of 1966), signed by Governor George Romney (1963–1969), authorized Michigan community college districts to initiate new career and technical preparation training programs. “Career and technical preparation program means a program that teaches a trade, occupation, or vocation and that is operated by an eligible postsecondary educational institution located in this state” (Section 388.1903, Sec. 3(1) (a)). A direct result of this act is that many of Michigan’s community colleges either developed or increased vocational education courses and programs. For example, Grand Rapids Community College and Washtenaw Community College offer more than 45 occupational programs (Grand Rapids Community College, n.d.; Washtenaw Community College, n.d.). In Michigan, vocational training is now offered at 28 community colleges and three public universities that also function as a community college (Ferris State University, Lake Superior State University, and Northern Michigan University). Community College enrollment in Michigan for fall 2014 was 214,166 (32% full-time and 67.3% part-time), and at Washtenaw Community College, the enrollment was 11,791 (27.02% full-time and

72.98% part-time) (Michigan Community Colleges Demographic Enrollment Profile, 2013–2014). In academic year 2013–2014, registered nursing pre-requisite program enrollment in all Michigan community colleges totaled 14,485 (16.5% male and 83.5% female). For that same year, the enrollment for registered nursing associate degree programs was 2,485 (14.5% male and 85.5% female) (Workforce Development Agency, State of Michigan, 2015).

During the Great Recession, many individuals aged 25 and over, both in Michigan and nationally, began the process of career re-tooling exploration in collaboration with their local community college. Metzger (2013) acknowledged that Michigan’s community colleges continue to be one of the state’s greatest strengths. For example, Michigan community colleges are ranked 17th nationally for the total number of individuals exiting with an associate degree: “It has been clearly demonstrated that a large share of the higher paying jobs of the future will require technical degrees. Our community colleges are working closely with employers to develop the programs that will meet their skill requirements” (Metzger, 2013, p. C1). It is projected that in the future, for example, Michigan registered nurses with an associate’s degree will be paid an average hourly rate of \$31.12; healthcare support occupations, which include home health aides, will be paid an average hourly rate of \$12.78. The projected hourly rate in Southeastern Michigan in 2003 with an associate’s degree in registered nursing was \$25.39, and projected job growth in healthcare occupations for 2013-2023 for associate’s degree holders is projected to be 3,319 new jobs (French, 2014(a); French, 2014(b)) (See Appendix E: Percent change in employment during recessions.)

President Obama’s Support of Community Colleges

Leary (2012) acknowledged President Barak Obama (2009–present) for endorsing community colleges as a viable resource for facilitating occupational career or job retraining because they are numerous and more affordable than public four-year institutions. Chen (n.d., “Why Obama”) acknowledges that the President is also being recognized for his two objectives of (1) increasing the number of four-year college or university graduates by 2020, and (2) having community colleges produce an additional five million graduates by 2020 (Leary, 2012). President Obama believes community colleges can achieve these two objectives because they have a history of helping American workers acquire the skills and credentials needed to succeed professionally (Chen, n.d. “Why Obama”). Also, community colleges offer affordable tuition, open admission policies, flexible scheduling of classes, and are located in convenient, accessible locations. Community college programs and services are more amicable for older adult students, who are either working (full or part time), need to take remedial classes, or require flexible course offerings. In addition, community colleges have the flexibility of offering unique, diverse, or specific workforce development programs to meet their community’s needs [nursing, technology, advance manufacturing, or green jobs] (Building Skills Through Community Colleges, n.d.). President Obama (2015) stated “In the coming years, jobs requiring at least an associate degree are projected to grow twice as fast as jobs requiring no college experience. We will not fill those jobs—or keep those jobs on our shores—without the training offered by community colleges” (Building American Skills through Community Colleges, n.d.).

In his 2014 State of the Union address, President Obama asked Congress to expand job-training programs in community colleges. In his 2015 budget proposal, he also proposed a \$6 billion grant for job-training programs at community colleges (Field, 2014(a); Field, 2014(b)). On July 22, 2014, President Obama signed the Workforce Innovation and Opportunity Act (WIOA), which is designed to help job seekers access employment, education, training, and support services to succeed in the labor market and to match employers with the skilled workers they need to compete in the global economy (U.S. Department of Labor: Employment and Training Administration, n.d.). WIOA “would also offer competitive grants to community colleges and other groups to offer training programs and apprenticeships aimed at preparing students for in-demand careers” (Fields, 2014(b), para. 16). Beam (2009) also advocated spending on community colleges because, “They’re agile. If the university system is an ocean liner, community colleges are the speedboats of higher education. If they get more money and use it wisely, the thinking goes; [*sic*] they can produce results in a matter of years. After all, they’re designed to respond to the needs of the local community” (Beam, 2009, para. 7).

President Obama, in 2015, announced another community college initiative he is supporting entitled, the America’s College Promise that would provide at least two years of free community college training to students who maintain a high grade point average. This initiative is modeled after the State of Tennessee’s Promise proposal that is financed using the state’s lottery to cover community college tuition for all of the state’s high school seniors starting in fall 2015. Tennessee state officials have predicted that 12,000 to 16,000 students will enroll in the state’s community colleges (Jesse, 2015; Mangan, 2015). President Obama, speaking in support of America’s College Promise, stated

“What I’d like to do is see the first two years of community college free for everybody who’s willing to work for it. It’s something we can accomplish and something that will train our work force so we can compete with anyone in the world” (as cited in Mangan, 2015, para.5).

To assist in the development of America’s College Promise, President Obama would establish an independent College Promise Advisory Board with Dr. Jill Biden serving as chairperson. The Board would be responsible for reviewing programs that nationally provide free community college tuition, recruit more states and communities to do likewise, and organize a public awareness campaign to advocate for tuition-free community colleges (Jesse, 2015). “The board will lend its expertise to help communities understand that investing in people who want higher education is worth it,” stated committee member Martha Kanter, former undersecretary of education and professor of Higher Education at New York University (cited in Smith, 2015, para. 4). Former Wyoming Governor (1995-2003) and committee member Jim Geringer further explained

America’s community colleges came about because local communities believed in the promise that the opportunity to achieve a degree or technical training would benefit both their youth and their communities. College Promise rekindles that same community spirit and affirms the ideal that education beyond high school matters. College Promise will be built upon local initiatives and local support enabled through a natural aspiration. (cited in Smith, 2015, para. 8)

The President estimates America’s College Promise will cost the federal government \$70 billion annually with the federal government providing three quarters of the funding and the states providing one quarter (Jesse, 2015). There are four proposed qualifications to participate in America’s College Promise: (1) students would have to maintain at least half-time attendance; (2) students would have to maintain a 2.5 grade

point average; (3) students would have to make steady progress towards completing their program of study; and (4), financial support can only be used for academic programs that fully transfer to public four-year institutions or job training programs with high graduation rates and lead to degrees and certificates in high demand occupations (Jesse, 2015; Mangan, 2015).

Opponents of America's College Promise have questioned whether this proposal would do enough to help low-income Americans. For example, the Institute for College Access and Success, an education advocacy group, argued, "Plans for free community college tuition often amount to a wolf in sheep's clothing. While well intentioned and politically popular, these plans are regressive and inefficient" (Cited in Mangan, 2015, para. 16). Molly Corbett Broad, president of the American Council on Education (ACE), endorsed the proposal, [calling] "the plan a potential game changer that could encourage millions more students to consider, apply, and enroll in postsecondary education" (as cited in Mangan, 2015, para. 13). The Association of Community College Trustees have also endorsed the proposal and stated it welcomed the proposal and was looking forward to more details: "Due to state disinvestment in higher education, any proposal that seeks to increase resources is greatly appreciated" (Cited in Mangan, 2015, para. 21).

...it's clear the proposal [America's College Promise] will face tough sledding in Congress. But we also know that there is strong support across the board for the colleges and the students who rely on them. The fact that the colleges focus on employment opportunities is also a political plus," stated David S. Baime, senior vice president for government relations and research for the American Association of Community Colleges. (Cited in Mangan, 2015, para. 22)

Study Introduction

This research study is important because it will provide insight into the adult learners' motivation for selecting Nursing and Health Sciences training at Washtenaw

Community College following the Great Recession (2007-2009). Specifically, the researcher is interested to learn if the Great Recession was a motivating factor for enrolling and seeking career training in Physical Therapist Assistant, Radiography, or Registered Nursing at Washtenaw Community College.

Purpose statement

The purpose of this study is to describe adult learners' motivation for enrolling in Physical Therapist Assistant, Radiography, or Registered Nursing programs at Washtenaw Community College following the Great Recession (2010-2015), and to identify the factors that influenced this decision.

Methodologies

This research study will be conducted using a mixed methods research design that incorporates both qualitative and quantitative approaches into a single study.

Numerical data may be included in a qualitative study, and narrative data (such as open-ended questionnaire responses) may be included in a quantitative study...Qualitative and quantitative approaches in a single study complement each other by providing results with greater breadth and depth. Combining *what* with a possible *why* adds power and richness to your explanation of the data. (Cited in Roberts, 2010, p. 145)

Daniel (2012), author of *Sampling Essentials: Practical Guidelines for Making Sampling Choices*, also explained that mixed methods sampling combines “different types of sampling methods into a single design “...mixed methods sample design focuses on the extent to which different types of sampling procedures are used in the same study” (p. 214). Because of Family Educational Rights and Privacy Act (FERPA) concerns, this study used a mass email survey targeting students enrolled for fall 2015 in Physical Therapist Assistant, Radiography, or Registered Nursing at Washtenaw Community

College. Using a combination of quantitative and qualitative questions, the researcher asked a diverse mixture of questions that could not be answered using just one of these methods independently. This study addressed the following two questions:

1. Was the economic impact of the Great Recession a motivating factor for selecting career training in health sciences at Washtenaw Community College?
2. Was the prospect of future employment security a factor in selecting Physical Therapist Assistant, Radiography, or Registered Nursing training at Washtenaw Community College?

The research study was conducted at Washtenaw Community College's main campus, which is strategically located between Ann Arbor, Michigan, and Ypsilanti, Michigan. The main campus for Washtenaw Community College was selected because all the Nursing and Health Sciences Programs being used for this study are being taught on this campus. This research study was conducted using nonprobability sampling because this sampling does not involve random sampling. The research was conducted using a nonprobability sampling of adult learners enrolled fall 2015 in Washtenaw Community College's Nursing and Health Sciences Associate's in Applied Science degree for (Physical Therapist Assistant, Radiography, and Registered Nursing) and Post Associate's Certificate for (Computed Tomography and Mammography) program. The research questions for this survey were collected using Survey Monkey and data were analyzed using a combination of Survey Monkey and individualized coding. The survey asked respondents about their academic objective(s), motivation, demographic information, and concerns/beliefs about future employment.

Limitations

Following is a listing of the potential limitations for this research study while being conducted at Washtenaw Community College: (1) Researcher bias, which has the potential to affect the completed dissertation. *It should be noted that the researcher is a current employee of Washtenaw Community College;* (2) Respondents to the survey are limited to students currently enrolled at Washtenaw Community College; (3) The results may not be generalizable to other community colleges.

Summary

Community colleges originally began as two-year extensions for high school students preparing to transfer to a designated four-year baccalaureate institution. Today, community colleges have developed into comprehensive institutions that offer certificates, Associate degrees, transfer preparation, customized industrial and workforce education, developmental courses, distance learning, and function as engines for community economic development: “The comprehensive mission of community colleges makes them attractive to a broad range of people who seek particular programs or opportunities of special interest” (American Association of Community Colleges, n.d.). Community colleges’ greatest contribution to their local economies is being a hub for employment development and training for regional employers’ workforce requirements. Community colleges also perform vital functions in today’s economy by helping individuals access and evaluate career changes or improve their current job skills.

Definition of Terms

The following list consists of terms that may require further clarification in order to better understand the focus of this study.

Career re-tooling	An individual changing or updating his or her current occupational skills.
Job layoff	The temporary or permanent removal of an employee from his or her current job.
Long-term unemployment	Individuals who have been consecutively unemployed for six months or longer.
Motivation	The process that initiates, guides, and maintains goal-oriented behaviors (www.psychologyabout.com).
Non-traditional students	Adult students aged 25 and older.
Occupational	Represents a specific trade or title of any employment situation in which an individual is currently engaged.
Recession	Decline in the Gross National Product for two consecutive quarters (i.e. six months or longer).
Technical	Terminology used to describe technical communication used in specific occupations.
Title V	Provides federal financial aid program funding for student loans, Pell Grants, or work-study.
Traditional students	Students aged 18-24.
Vocational	Individual participating in ongoing skill or trade training in pursuit of a specific career.
Workforce education	Describes training received for a specific occupation or practical experience received from employment or internship.

CHAPTER 2: LITERATURE REVIEW

Education is the most powerful weapon which you can use to change the world.
Nelson Mandela

Introduction

The development of public junior colleges is a twentieth-century phenomenon that began as high school extensions primarily using a liberal arts curriculum. During the Great Depression, junior colleges, in response to mass unemployment, began the transition into becoming leaders in vocational education. In the 1940s, the Truman Commission recommended changing the name junior colleges to community colleges because this name better represented the colleges' influence in the local community. Today's community colleges have evolved and developed into comprehensive institutions that are truly representative of their local community. This chapter will examine the issues related to the development of community colleges from a historical perspective including the Development of Junior Colleges to Community Colleges, Opportunities for Growth and Change, Vocational Education, Characteristics of Adult Learners, Workforce Education, Economic Benefits of Community Colleges, The Great Recession, and the Growth in Healthcare Professionals.

Development of Junior Colleges to Community Colleges

Postsecondary education in the United States began when Harvard College (Harvard University) was established by the Massachusetts Bay Colony in 1636 as a

private institution named for one of its first wealthy benefactors, John Harvard of Charlestown, Massachusetts (Beach, 2011; Guthrie, 2003). Since the opening of Harvard College, two other universities were established that influenced the development of junior colleges in the United States. Those institutions are the University of Michigan and the University of Chicago. The University of Michigan (1817) is recognized as not only the first public university in Michigan but also in the United States. The University of Chicago (1891) is a private research institution established by philanthropist John D. Rockefeller, who recognized the university as the greatest investment he had ever made (Guthrie, 2003). The University of Michigan President Henry P. Tappan (1852–1863) and University of Chicago President William Rainey Harper (1891–1906) were both visionary educational leaders who were beneficial in the eventual development of junior colleges in the United States. Both of these presidents were advocates who envisioned junior colleges as extension facilities for high school seniors and as alternative preparation facilities to prepare students for transferring to a designated baccalaureate institution (Guthrie, 2003; Beach 2011).

Henry P. Tappan, the first President of the University of Michigan, envisioned a junior college as a university's first two-year preparatory institution to be located either in a high school or in a separate facility located near or on a university's campus. He also believed that a junior college could be used as a facility to relieve a university of the burden of providing general education courses during the first two years of postsecondary study (Beach, 2011). Forty-nine years after President Tappan's comments, University of Chicago president William Rainey Harper also advocated that a two-year junior college would be an option for preparing students for the first two years of undergraduate study

apart from upper level study and graduate programs (Thelin, 2004). He also believed the university should primarily be concerned with undergraduates' major requirements in their junior and senior years (Ricketts, 2009). Eventually, President Harper was the catalyst in the establishment of Joliet Junior College (1901) in Joliet, Illinois, which is recognized as the first junior college in the United States. President Tappan's writings were influential in gaining the eventual support of the University of Michigan faculty, which encouraged the establishment of junior colleges in Michigan and in particular Grand Rapids Junior College, which was established in 1916 and later became Grand Rapids Community College in Grand Rapids, Michigan (Insidehighered.com, n.d.; Grand Rapids Community College, n.d.; Guthrie, 2003; Beach, 2011; Ricketts, 2009).

Joliet Junior College, Grand Rapids Junior College, and other junior colleges established early in the 20th century were first established as extensions of public high schools that added a fifth and sixth year of college preparatory courses to the high school curriculum. The American Association of Junior Colleges (AAJC), now the American Association of Community Colleges, (AACC), (1972) in 1921 defined a junior college as "an institution offering two years of instruction of strictly collegiate grade." In 1925, AAJC expanded this narrow definition to include "the larger and ever-changing civic, social, religious, and vocational needs of the entire community" (Beach, 2011, pg. 7–8). Today, junior colleges have evolved, expanded, and developed into comprehensive community colleges that offer transfer preparation, occupational or vocational training, workforce education, and community leadership. Community colleges as comprehensive institutions are recognized for providing a wide variety of programs including noncredit, credit, and general education curriculums, occupational or vocational training, adult and

continuing education. Community Colleges also award Certificates, Associate of Arts (AA), Associate of Science (AS), and Associate of Applied Science (AAS) (Levinson, 2005; Ratcliff, n.d.). Still, the best emphasis of a comprehensive community college is the quality of their academic preparation requirements that will lead their students to successful employment and job satisfaction (Trueblood, 1973). Washtenaw Community College's current marketing campaign emphasizes this: *What Do You Call a Washtenaw Community College Graduate? Employed.*

To accomplish these objectives, comprehensive community colleges today play a vital role in providing transfer and vocational education, community outreach, and workforce education “while promoting the educational and economic development of individuals and communities” (Ritze, 2006, p. 83). In 2011, the National Student Clearinghouse Research Center issued a report on the economic impact of how the Great Recession affected college enrollment. The report indicated that, overall, enrollments of new students rose to 2.135 million in 2010, up from 1.997 million in 2006, which represented an increase of 6.9%. In 2009, following the onset of the Great Recession, the sharpest one-year jump in enrollment occurred, which represented a slight decline from 2010, with community colleges accounting for most of the decline (Hoover, 2011). Lane and Johnstone (2012) reported that by 2011 community college enrollment in the United States represented 40% of all individuals who began their undergraduate education at a community college: “In 2006, 41.7% of traditional age students enrolled at two-year colleges; in 2009, 44.5% did so and between 2008 and 2009, enrollments of traditional age, first-time students at two-year colleges increased by 8.3%” (Hoover, 2011, para. 7).

Opportunities for Growth and Change

A variety of diverse events have contributed to the eventual development and growth of community colleges here in the United States including the Commission on Higher Education (The Truman Commission), the Servicemen's Readjustment Act (1944) (G.I. Bill of Rights), Title IV of the Higher Education Act of 1965, the Vocational Education Act of 1984 (Carl D. Perkins or Perkins Act), and the Michigan Community College Act of 1966 (Act 331 of 1966). This section will present a historical perspective of how each of these circumstances eventually affected the development of community colleges in the United States.

On July 13, 1946, President Harry S. Truman established the Commission on Higher Education (Truman Commission) in response to national enrollment increases at postsecondary institutions, including junior colleges, following the United States' involvement in World War II (1941–1945). President Truman wanted the 28-member commission to examine and make recommendations on several issues including expanding higher education opportunities, the feasibility of establishing intermediate technical institutions, and the need for rapid expansion of postsecondary physical facilities (Ricketts, 2009; Thelin, 2004). One of the commission's recommendations was the adoption of the name change from "junior college" to "community college" because the name "community college" would best describe these institutions. The commission felt community colleges would better represent their communities, and community colleges would be able to emphasize their expanded mission within their communities (Diener, 1986; Thelin, 2004; Ricketts, 2009). Examples of other Truman Commission recommendations were (1) the establishment of community college programs that

emphasize terminal education and (2) vocational education would include a mixture of technical and general education training (Diener, 1986).

Today, community colleges have become a primary point of entry into postsecondary education. The open-door policy provides easily accessible public postsecondary education to both adult learners and economically disadvantaged individuals. The Truman Commission was the catalyst to establishing a national network of public community colleges that provide universal access (Phillippe and Gonzalez Sullivan, 2005). Today, President Truman is also applauded and recognized as a visionary in the eventual growth and development of 1,047 public community colleges in the United States (U.S. Department of Education, n.d.). However, because of the generally less than amicable relationship between President Truman and Congress on most issues, no funding was provided for the implementation of the Truman Commission recommendations (Diener, 1986; Thelin, 2004; Ricketts, 2009).

Although Congress never adopted the Truman Commission recommendations, President Truman is also acknowledged for signing the Servicemen's Readjustment Act of 1944 (P.L. 78-346, 58 Stat. 284m), or G.I. Bill of Rights, which was beneficial in increasing the growth and enrollment of returning veterans at baccalaureate institutions, community colleges, or junior colleges following World War II. The G.I. Bill of Rights provided returning veterans of World War II federal funding for education and training in both vocational and professional occupations (Guthrie, 2003). In 1965, President Lyndon B. Johnson, as part his Great Society agenda, signed Title IV of the Higher Education Act of 1965 (Public Law 89-329). President Johnson had an "almost mystical faith" in the capacity of education to transform individuals' lives, and he believed in enabling

individuals to solve their problems through education (TG Research and Analytical Services, 2005). One of President Lyndon Johnson's top Great Society priorities was to broaden educational opportunities for all Americans using one of his chief legislative instruments the Higher Education Act (HEA) for postsecondary students (TG Research and Analytical Services, 2005). President Johnson advocated Title IV would strengthen the educational resources available to students enrolled in a diverse mixture of postsecondary institutions by providing federal financial aid assistance (TG Research and Analytical Services, 2005).

Johnson hoped the HEA would help every willing individual receive a postsecondary education that would lead to a higher income for them and their children. In addition to decreasing the poverty of individuals, Johnson also believed additional and higher quality schooling would benefit the country by ensuring a steady supply of educated individuals to provide the human resources needed for economic prosperity. (cited in TG Research and Analytical Services, 2005, p. 17)

Title IV today is the major source for postsecondary student federal financial aid programs:

1. Loans (Federal Family Education Loan) (FEEL)
2. Direct Loan, Federal Perkins Loan: Grants (Federal Pell Grants)
3. Academic Competitiveness Grant (ACG)
4. National Smart Grant, Federal Supplemental Educational Opportunity Grant (FSEOG)
5. Federal Work-Study (FWS)

Title IV has had the biggest impact on making postsecondary education accessible to all students: "Historically, the driving force behind student financial aid has been the goal of providing access to higher education regardless of a student's ability to pay" (Guthrie, 2003, p. 376). The National Center for Education Statistics (n.d.) reported

for academic years 2006–2007 and 2011–2012, the percentage of community college students receiving any financial aid increased from 67% in 2006–2007 to 79% in 2011–2012, and the largest percentage increase in students receiving any aid was at public institutions, from 61 to 76%.

President Obama’s 2012 budget proposal recommended eliminating Summer Pell Grant funding after demand for funding grew ten times faster than expected. This followed his announcement of his goal of having the United States lead the world in the percentage of college graduates (Adams, 2013). In 2015, the House of Representatives Budget Committee recommended large cuts in Pell Grant funding, which help more than eight million students from low and modest-income families afford college. The proposal would freeze the maximum Pell Grant funding for ten years, even as postsecondary tuition and room and board costs continue to rise (Reich and Debot, 2015): “To be sure, Pell Grant costs rose substantially between 2007 and 2010, largely as a result of the recession, which depressed family incomes and led more people to pursue college in order to improve their education and skills” (Reich and Debot, 2015, para. 4). Pell Grants are discretionary federal grants administered by the U.S. Department of Education for financing undergraduate education in the United States. The U.S. Department of Education announced, effective on July 1, 2012, an eligible recipient could receive federal Pell Grant funding for no more than 12 semesters or the equivalent (roughly six years) (“Federal Student Aid,” n.d.).

President Ronald Regan, in October 1984, signed the Vocational Education Act of 1984, C.F.R. Title 34; Parts 400-499 (Carl D. Perkins Act or Perkins Act). This act represented the federal government’s first attempt at providing federal funding for

vocational education training for individuals with a disability in either a K-12 or postsecondary environment. The Perkins Act also represented the federal government's commitment to vocational education at community colleges as important providers of postsecondary education (Vaughn, 2006). The Perkins Act required subsequent Congressional reauthorizations, and President George W. Bush signed the reauthorization that changed the name of the Vocational Education Act of 1984 to the Carl D. Perkins Career and Technical Education Improvement Act of 2006, Public Law 109-270. With this name change, the focus of the act changed from being primarily a federal government funding source for a disabled individual to any individual seeking vocational education training in either K-12 or postsecondary institutions. This act also replaced the terminology "vocational education" with "career and technical education" and provided an increased focus on academic achievement and strengthened the connection between K-12 and postsecondary education (U.S. Department of Education, n.d.).

The Michigan Community College Act of 1966 (Act 331 of 1966) was beneficial in increasing the number of public community colleges in Michigan from eight to twenty-eight. The primary purpose of the act was to revise and consolidate previous laws related to community colleges in Michigan. The act was the catalyst for the creation of individualized Michigan community college districts to govern, administer, levy taxes, or issue bonds in their districts. However, the greatest impact of the act was the authorization for Michigan community college districts to operate new jobs training programs, enter into certain training programs, or issue bonds to finance these training programs. The act was the impetus used by visionary community leaders in Washtenaw County for the eventual development and approval of Washtenaw Community College in

1965 (Furlong, 2004). In 2015, because of these visionaries, Washtenaw Community College celebrated its 50th Anniversary of Opening Doors by assisting individuals to achieve their academic goals, changing lives through education, and providing community leadership.

Following the Great Recession, Clark (2010) indicated the average enrollment at community colleges was 16% for academic year 2009–2010, and it is estimated the enrollment would increase by double digits for academic year 2010–2011 because of reverse transfers and creative course offerings. Using reverse transfers, students attending four-year institutions are switching to lower-cost community colleges to complete their basic general educational courses or utilizing community colleges during the summer to graduate sooner. Other creative approaches community colleges have adopted since the Great Recession include promoting online classes and offering classes at nontraditional times. For example, some offer classes in the middle of the night, early morning, or Saturday or Sunday (Clark, 2010; Washtenaw Community College, n.d.).

Vocational Education

With the guidance and support of University of Chicago President W.R. Harper, vocational education was first introduced in the United States at two private institutions, Lewis Institute (1896) and Bradley Polytechnic Institute (1897) (Bradley University) (Guthrie, 2003; Thelin, 2004). The first Junior College to offer vocational education was Chaffey Junior College (1916) in California when it offered courses in commerce, manual training, home economics, general agriculture, farm mechanics, and soil conservation. The Chicago Junior College (1919) in Illinois (Medill Branch) offered business and commerce courses (Guthrie, 2003; Thelin, 2004). However, during the

Great Depression (1929–1942), the curriculum focus of public junior colleges in the United States began to change and expand when many started offering vocational education training in response to increase enrollment by adult students because of the absence of jobs and employment opportunities (Diener, 1986; Ratcliff, n.d.).

Cohen and Brawer (2008) stated “Vocational education in the two-year colleges was designed to teach skills more complicated than those taught in high schools” (p. 24). During the Great Depression (1929-1942), public junior colleges facilitated by the lack of local community employment opportunities, began the transition of providing vocational training to meet the needs of their local community (Phillippe and Gonzalez Sullivan, 2005; Thelin, 2000; Jurgens, 2010). Initially, vocational education training at a junior college included radio repair, secretarial services, and laboratory technical work. Vocational education programs at community colleges today have evolved to include automotive technician, automotive collision repair, early childhood education, health sciences, laser optics, office management, medical and computer technologies, and welding (Cohen and Brawer, 2008; Vaughn, 2006). Vocational education, which began at junior colleges during the Great Depression, today is also a vital resource for helping individuals seeking career change, self-improvement, or job retraining (U.S. Department of Education, n.d.; Simon, 2012).

During the Great Recession, enrollment at postsecondary institutions grew faster in the United States than expected, particularly at community colleges (Wildavsky, 2012). Total undergraduate numbers increased from 4.9% in 2008 and 7.3% in 2009, ultimately reaching 18.1 million in 2010. However, with this increase in enrollment, the National Student Clearinghouse Research Center (2011) found that postsecondary

institutions' persistence rates were much higher than retention rates which did not appear to be impacted by the Great Recession (Wildavsky, 2012).

Retention rates refer to the number of students that have continued enrollment at a single institution, while persistence rates indicate students that have had continued enrollment at any college around the country. This study [The National Student Clearinghouse Research Center] showed that persistence rates were considerably higher than retention rates at most of the schools nationwide, indicating that while many college students continue with their higher education, they don't always do so at the same school where they started. (Cited in Chen, 2015, "Surprising," para. 6)

Vocational education training focused on learning an office or production trade—a practice which continued at community colleges through the 1940s and 1950s (U.S. Department of Labor, n.d.; Bureau of Labor Statistics, n.d.). The eventual development of registered nursing at community colleges was also influenced by federal government funding and support, consumer concern and support, and professional responsibility and accountability from professional organizations, including the involvement and support of the American Association of Community Colleges, which began in 1945 and continues today (Mahaffey, 2002). The Associate Degree in Registered Nursing was introduced in 1958 at seven community colleges in the United States, with the financial support from the W.K. Kellogg Foundation and the Rockefeller family, which was beneficial in establishing registered nursing at these community colleges (Vaughn 2006). The success of these nursing programs was the catalyst for the eventual growth of registered nursing [and by extension other healthcare fields] at community colleges nationally, and by 2008, there were more than 800 Associate degree registered nursing programs in the United States including the 28 public community colleges in Michigan (Mahaffey 2002; Michigan Colleges Online; Michigan Community College Association, n.d.).

Nursing may be the quintessential example of community colleges answering the increased demand for technical workers. Previously, nurses either received their training in hospital-based diploma programs or were trained in four-year programs as professional nurses. As health-care facilities expanded, the demand for nurses far exceeded the ability of other programs to train them. Community colleges stepped in, and by the early 1980s, more than 60% of nurses in the United States came from Associate degree programs. (Cited in Karp, Jacobs, and Hughes, 2002)

The Associate degree in registered nursing prepares an individual for the technical skills nurses need in the healthcare setting such as treating and educating patients and providing emotional support to patients and their family members. After completing their registered nursing associate degree training, community college candidates are eligible to take the national licensing examination, known as the National Council Licensure Examination or NCLEX-RN, in order to obtain their nursing license. In 2001, a study conducted of the nearly 2.7 million registered nurses in the United States, 34% reported the associate degree as their highest education degree, and more than 40% indicated they had received their basic nursing education in an associate degree program (Spratley, Johnson, Sochalski, Fritz, and Spencer, 2001).

The projected employment growth in occupations and industries from 2012 to 2022 related to healthcare is projected to increase 10.8% or 15.6 million new jobs, while healthcare and the social sciences assistance sector is projected to grow at an annual rate of 2.6% while adding five million jobs from 2012 to 2022 (U.S. Bureau of Labor Statistics, n.d.) (See Table 1: Projected Employment Growth).

Table 1: Projected Employment Growth

	NATIONAL	MICHIGAN	PROJECTED GROWTH	TIME PERIOD	ASSOC DEGREE	INCOME
Physical Therapist Assistant	X		41%	2012 to 2022	X	Median wage \$52, 160
Physical Therapist Assistant		X	26.1		X	Median hourly wage \$21.03
Radiologic and MRI Technologists	X		21	2012 to 2022	X	Median wage \$59,910
Radiologic Technician		X	10.7	2012 to 2016	X	Median wage \$47, 900
Registered Nursing	X		19.4	2012 to 2022	X	Median wage \$65,470
Registered Nursing		X	11.4	2012 to 2022	X	Median hourly wage \$31.47

Sources: U.S. Bureau of Labor Statistics, n.d.; Occupational Outlook Handbook, 2015; Michigan Department of Technology, Management, and Budget, n.d.; LARA Healthcareers in Michigan, 2016.

Characteristics of Adult Learners

The primary purpose of vocational education at a community college is assisting individuals in acquiring the job skills necessary for entering and succeeding in specific occupations in their local labor market. The ability of community colleges to offer up-to-date credit vocational education programs that respond to fluctuations in employment supply and demand is crucial to maintaining the local community’s acceptance of these programs (Silverberg, Warner, Fong, and Goodwin, 2004). In response to a 2004 national survey of adults about their perceptions of community colleges, the respondents’ consensus was that community colleges are the gateways to opportunity and institutions of higher education that can provide individuals with the skills needed to find

employment (Belden, Russonello, and Stewart, 2004). Community colleges are the launching pad for students in terms of educational progression and accelerated learning through their early college experiences and transfer opportunities. Community Colleges are also the (re)launching pad for providing individuals with the knowledge and skills they will need when and where they will need them for career change or reassessment. Community colleges serve their communities by focusing on their local employers' employment needs and demands by providing the workforce candidates for these employment opportunities (American Association of Community Colleges--Policy Brief 2013-01PB). Individuals pursuing vocational education training at a community college include (1) Traditional-age students, in many instances, preparing for their first job; (2) Working adults seeking upgrading and retraining of their knowledge and job skills; (3) Individuals who are either underemployed or unemployed; (4) Older adults and retirees seeking to develop a new skill or acquire the technical knowledge for personal reasons (Guthrie, 2003).

Researchers Paulson and Boeke (2006) argued that it is a bit frustrating but understandable that in the field of adult education there is no agreement on the definition of "adult learner." The American Council on Education (2006) agreed that finding national data about adult learners for research purposes is difficult, and "the lack of research in this area is that no consensus has been reached on how to define success for adult learners" (p. 33). The lack of a standard definition of an adult learner has resulted in the acceptance of categories to define adult learners, beginning with 16 years old and older, to 18 years old and older, to 24 years old and older, and some researchers split the age ranges for adult learners at 29 years old, 34 years old, or other breakpoints (American

Council on Education, 2006). Wlodkowski (2008) used a chronological adoption that divides adult learners into three categories: young adults (18 to 24 years old), working-age adults (25 to 64 years old), and older adults (65 and older). The terminology “traditional students” is often used to define young adults as 18 to 24 years old and “nontraditional students” as 25 years old and older. In the postsecondary literature, as Kasworm (1990) explained, adult students have typically been defined as age 25 or older. Researcher Horn (1996) further identified a nontraditional student as someone who would meet one or more of the following criteria: (1) delayed enrollment into postsecondary education, (2) part-time attendance, (3) financial independence, (4) full-time employment, (5) has dependents other than a spouse, (6) is a single parent, (7) Graduated from high school, or (8) obtained a GED. “Most of these nontraditional students are working-age adults, but some are young adults or older adults. Although nontraditional students are considered at greater risk of failing to complete a degree, nearly one-third of them succeed” explained Wlodkowski (2008, p. 33). This opens up questions of motivation and academic success.

The word “motivation” has also been used to define and explain why one individual will succeed and another will fail in a postsecondary environment. Although motivation cannot be seen, touched, or precisely measured, it is often used by individuals for directing their energy toward accomplishing a goal. “Motivation binds emotion to action” explained Wlodkowski (2008, p. 2). Gladding (2006) asserted that motivation is an individual’s behavior that is initiated by needs and directed toward accomplishing goals. Thus, an individual’s motivation is biologically based as well as acquired. The characteristics of an individual being motivated include (1) being purposeful, (2) being

attentive, (3) being able to concentrate, (4) being imaginative and passionate, and (5) using “other processes to pursue goals, such as learning a particular subject or completing a degree” (Wlodkowski, 2008, p. 3).

Researchers have struggled with the question of what motivates students and generally recognize two major types of motivation: intrinsic and extrinsic (Center on Education Policy, 2012):

Intrinsic motivation is the desire to do or achieve something because one truly wants to and takes pleasure or sees value in doing so. Extrinsic motivation is the desire to do or achieve something not for the enjoyment of the thing itself, but because doing so leads to a certain result. (Cited in Pintrich, 2003)

While researchers have used different terminology for describing motivation, they essentially agree on four major factors students need to have in order to be motivated (see Table 2: Four Dimensions of Motivation).

Table 2: Four Dimensions of Motivation

DIMENSIONS	INDICATORS
Competence (Am I capable?)	The student believes he or she has the ability to complete the task.
Control/Autonomy (Can I control it?)	The student feels in control by seeing a direct link between his or her actions and an outcome. The student retains autonomy by having some choice about whether or how to undertake the task.
Interest/Value (Does it interest me? Is it worth the effort?)	The student has some interest in the task or sees the value of completing it.
Relatedness (What do others think?)	Completing the task brings the student social rewards, such as a sense of belonging to a classroom or other desired social group or approval from a person of social importance to the student.

Sources: Bandura, 1996; Dweck, 2010; Murray, 2011; Pintrich, 2003; Ryan and Dedi, 2000; Seifert, 2004

Aslanian (2001) in *Adult Students Today* described how “transition and trigger” events can affect adult learners’ decisions to return to postsecondary institutions for further educational training. Transition is defined as an individual’s change in status that

results from a learning situation; “[t]his topic of the learning is always related to the ‘transition’” (p. 16). Trigger is defined as a specific event that “precipitate(s) the [individual’s] decision to learn at that point in time” (p. 16). In this study, 85% of the respondents reported their predominant transaction event was a career transition; whereas, 71% of the respondents cited their trigger event as career need, and 18% cited family events (Aslanian, 2001). The economic uncertainties of the Great Recession may not have been cited as the primary trigger event by respondents, but it most certainly had to have had a role as a *triggering factor* in respondents’ preferences for the perceived security of a career in the medical field and for the perceived value of a community college education.

Aslanian and Brickell (1980) published the results of their nationwide study of adult learning in *Americans in Transition: Life Changes as Reasons for Adult Learning*. The survey was used to address the issue of “Why do adults learn when they do?” This survey was conducted using qualitative survey techniques that included face-to-face interviews and telephone conversations with almost 2,000 participants age 25 and older. There were five principal conclusions: (1) most individuals learn because they want to use the knowledge they have acquired; (2) transiting from one point in life to another is what causes most adults to learn; (3) the major purpose for adult learning transitions is to acquire new or improved career skills; (4) “for adults in transition, specific life events set the time on the learning clock; knowledge of learning opportunities and even the desire to learn are not sufficient to cause most adults to learn at any particular time” (Aslanian, 2001, p.xii); and (5) in many instances, an adult learner’s “decision to learn may be pending for a long time, but the timing of [his/her] entry into the learning arena

[community college] will be determined by particular events that permit or force them to do so” (Aslanian, 2001, p. xii).

Community colleges enroll the greatest proportion of adult learners and provide a central role in serving the educational and learning needs of these students; however, Van Noy and Heidkamp (2013) indicated the Great Recession would affect the demographic of adult learners’ enrollment at community colleges

1. One effect of these demographic trends is that between 2009 and 2019, adult college enrollments are expected to increase by 22.6%, compared to a 9.6% increase in enrollments by traditional age students (Kelly and Strawn, 2011).
2. Yet much of postsecondary educational policies are still geared toward meeting the needs of 18 to 22-year-old, full time students, not the more than 120 million workers between the ages of 25 and 64 who have no postsecondary credentials of any sort (Bosworth, 2007).

Workforce Education

Following the Great Recession (2007-2009), the lack of employment opportunities became a fundamental part of the “new normal” in many communities across the United States. To address this “new normal,” many individuals enrolled in their local community college seeking workforce education because of their community college’s ability to provide the courses and programs that would prepare them for employment or for advancement within their present occupation (Jacobs, 2012). Jacobs (2009) affirmed the one common mission identified with community colleges is workforce education: “the ability of these colleges to provide courses and programs that prepare students for work or advancement within their present jobs” (p. 109). Alan Greenspan, the 13th Chairman of the Federal Reserve (1987-2006), also noted the contributions of community colleges in workforce education:

One area in which educational investments appear to have paid off is our community colleges. These two-year institutions are playing a similar role in preparing our students for work life as did our early twentieth-century high schools in that less technically oriented era. (Cited in Federal Reserve Board, 2004)

The American Association of Community Colleges (2000) also delivered a resounding endorsement of community colleges' workforce education function: "Community colleges should view the preparation and development of the nation's workforce as a primary part of their mission and communicate to policymakers the uniqueness of this community college role" (p. 8). A community college's workforce educational mission incorporates all its institutional programs, courses, and activities that will prepare its students for employment (Jacobs and Dougherty 2006). Nationally, during the 1950s and 1960s, governors, state legislators, and community college administrators [including Michigan Governor George Romney and the Michigan Legislature in 1966] "strongly pushed for the vocationalization of community colleges in order to provide colleges with a distinct training niche and to stimulate the growth of state economies by offering publicly subsidized employee training in order to attract business firms" (Jacobs and Dougherty, 2006, p. 54). The National Center for Education Statistics, IPEDS (n.d.) reported that in 2009, community colleges enrolled the greatest proportion of students age 25+ (36.5%) and older students age 50+ (46%). In fact, during the Great Recession, total enrollment at community colleges across the United States grew exponentially from 4.9% in 2008 to 7.3% in 2009. Eventually, 18.1 million individuals were enrolled in community college programs in 2010 (Wildavsky, 2012).

Workforce education training at community colleges normally incorporates the following four areas: (1) To provide general education curriculum for transfer to a

baccalaureate institution (Katsinas, 1994). (2) To provide workforce education curriculum for vocational, occupational, and technical education (Katsinas, 1994). (3) To provide developmental curriculum for mathematics, reading, and writing, which is central to providing a second chance (Katsinas, 1994). (4) To provide professional credit or noncredit curriculum for continuing education (Katsinas, 1994).

“The community colleges’ reputation in workforce education was honed in the post-World War II economic expansion,” according to Jacobs (2009, p. 110). Jacobs (2000) defined workforce education at a community college as “the process of preparing human capital for productive work within a community.... Vocational education is the preparation of individuals with specific occupational skills” (p. 3). Workforce education is also “the education and training programs for participants or those who wish to participate in the workforce delivered through formal and informal means that are designed to enhance the skills of people to gain or maintain socio-economic status” (Katsinas, 1994, para. 2). Lane and Johnstone (2012) contend there are four reasons why community colleges have emerged as comprehensive institutions that provide workforce education while also serving as a bridge or a direct conduit to baccalaureate degree programs: (1) community colleges are easily accessible to both incumbent and dislocated workers, and these colleges are willing to customize training programs that fit the needs of their local community (Lane and Johnstone, 2012); (2) community college faculty (full-time and part-time) are a comprehensive mixture of technical and academic individuals who either have prior work experience with a specific industry or specialized academic training (Lane and Johnstone, 2012); (3) community colleges using articulation agreements are now increasing their efforts to connect their workforce education with

occupations that require four-year degrees (Lane and Johnstone, 2012); and (4) community colleges are now offering “University Centers,” either constructed or provided classroom space for maintaining significant baccalaureate programs on or in close proximity to their campuses. “University Centers” located on community college campuses are considered outposts of baccalaureate institutions that offer courses either at the community college or online (Lane and Johnstone, 2012).

Phillippe and Gonzalez Sullivan (2005) indicated that with the growing diversity of students attending community colleges, the enrollment is expected to continue expanding over the next twenty to thirty years, “based on population projections” (p. 5). Community colleges’ open-door admission policies are more important today than ever before because “We live today in an age in which the key strategic resource for success is knowledge (Shannon and Smith, 2006, p. 17). Community colleges have an established history of being accessible open-door institutions which, “[ensure] access for all who can benefit, is the foundation on which all other community college operations rests” (Shannon and Smith, 2006, p. 16).

In many instances, older students who lack basic academic skills enroll in community colleges seeking job skills for immediate entry into the workforce or with the goal of either obtaining an Associate’s degree, certificate, or transfer to a baccalaureate institution (Wilson, n.d.). Approximately 90% of these students will have completed high school; 8% will have earned a General Education Development (GED) certificate. However, in 2007–2008, almost 42% of first-year community college students reported completing a remedial course (Staklis and Chen 2010; Snyder and Dillow, 2011; Aud, Kena, Frohlich, Kemp, and Tahan, 2011). A consequence of community colleges’ open-

door admission policies has been the increase in the number of individuals with developmental deficiencies who need to improve their basic computer skills, mathematics, reading, writing, and study skills (Jacobs, 2009):

These underprepared adults look to the community college to empower them to find their way into the economic mainstream. Community colleges are positioning themselves as primary deliverers of workforce education in the face of a rapidly changing economy and the growth of enrollment by increasingly diverse students, many of whom are underprepared for career entry and advancement. (p. 119)

Unfortunately, community colleges have positioned themselves as the gateway to higher education for individuals seeking workforce education without these individuals understanding one of the hidden barriers of community colleges' open-door admission. Community colleges' open-door admission practices mask their essential academic skills requirements that are necessary for an individual to be academically successful. To assist academically underprepared students, many community colleges now offer developmental (basic computer, mathematics, reading, and writing) courses that are designed to help these students to strengthen these skills so they can be successful academically in college-level courses (Kays, 2000; Rao, 2004). Researchers have found that students needing to complete one or two developmental courses have exhibited a good success rate for completing their degree program. However, this success rate decreases if a student has to take more than two developmental courses. One study concluded that 55% of students who took only one developmental course completed their degree program, but this rate decreased to 35% for students who took three or more developmental classes (Rao, 2004; Adelman, 1998). Although developmental education incorporates a broad-ranging curriculum at community colleges, this curriculum also plays a significant role in the ultimate success of the underprepared student:

“Unfortunately developmental education continues to be a major part of the “cooling out process,” meaning students who start at the lowest levels of developmental education curricula are less likely to complete even a certificate or applied associate’s degree, let alone an associate degree or transfer to a four-year institution” (Kays, 2009, p. 9). The need for developmental education is indispensable to the success of many community college students. Developmental courses may have played a vital role in the success of not just the students involved in the survey but many others as well.

Katsinas, D’Amico, and Friedel (2011) argued community colleges were the primary port of entry into higher education for millions of academically-talented minority, low-income, first-generation, and adult learners seeking a certificate, Associates, or baccalaureate degree both during and following the Great Recession. During the Great Recession, community colleges also provided both short term and long term workforce training programs designed to reach temporarily dislocated workers, and in some cases, the long term unemployed. Individuals, who were struggling the most financially, indicated they viewed “higher education as a primary vehicle for ensuring financial security” (Dunbar, Hossler, and Shapiro, 2011, p. 45).

Economic Benefits of Community Colleges

Pynes (2013) argues, “In order for the nation as a whole to maintain a competitive economic edge, the workforce must have education and training beyond high school. [Today] six out of ten jobs now require at least some postsecondary education and training” (p. 29). Following the recession between 1980 and 1982, a substantial portion of unemployed individuals were able to return to their previous jobs, or they were at least able to find employment in their previous occupations (Pynes, 2013). However,

following the Great Recession (2007–2009), the likelihood of unemployed individuals being able to return to their previous jobs or to find employment in their occupations was less likely this time around. The primary reason was employers learned during the Great Recession to divest themselves of unprofitable investments, using attrition in conjunction with combining, eliminating, or reducing the number of their employees and positions. As a result, unemployed individuals found that skills that once earned them a living wage were no longer in demand in the marketplace. Sadly, if these individuals hoped to work again at anything approaching a middle-class wage, they would have to acquire new employment skills (Merisotis and Jones, 2010). Both Anthony Carnevale and Jeff Strohl (2010) of the Georgetown University Center on Education and the Workforce predicted that in 2010 about 47 million jobs will become available in the marketplace with 65% of them requiring some form of postsecondary degree or credential. Carnevale and Strohl (2010) also argued that fourteen million of these jobs will demand only a two-year associate's degree, a one-year certificate, or some college training short of a bachelor's degree. These positions called "middle skill" occupations include healthcare (nurses and other related occupations) with starting salaries ranging from \$25,000 to more than \$40,000 annually and are expected to grow substantially from there (Merisotis and Jones, 2010; National Conference of State Legislatures, 2015).

Clark (2010) argued the Great Recession has "penalized individuals who don't spend the time and money to get a college degree" (para. 3). During the Great Recession, community colleges were recognized as an excellent higher education choice: Dr. Jill Biden, a community college faculty member has called community colleges "one of America's best kept secrets" (Tellefsen, 2011, para. 4). State of Michigan Board of

Education President John Austin stated, “There’s tremendous return on investment for helping people achieve higher levels of education” (Cited in Oosting, 2015, December 6, p. A15). The Michigan Postsecondary Credential Attainment workgroup indicated that in 2015, only 38% of working adult workers in Michigan had an Associate degree or higher, and another 7.5% had earned either technical or occupational certificates. The *Complete College America* (2010) report entitled “Certificates Count” reported the higher education credentials obtained by Michigan residents age 25–64 were certificates 8%, associate’s degree 10%, bachelor’s degree 18%, and graduate degree 10%. The workgroup is recommending that the state of Michigan set an aggressive goal of ensuring that at least 60% of Michigan residents have obtained some type of postsecondary credential by 2025 (Oosting, 2015).

The Great Recession

The 8.8 million jobs that were lost during the Great Recession represented more jobs loses than were previously lost during the four prior recessions combined, “and this time it is an agonizingly slow business to replace them” (Zuckeman, 2011, para. 1). In April 2009, the Great Recession officially became the longest since the Great Depression, and this date also marked the seventeenth month of the recession that began in December 2007 (Rosenberg, 2010). During the Great Recession, over 15,000 individuals in Washtenaw County were unemployed (Office of Community & Economic Development, n.d.). For example, during the recession, two of Washtenaw County’s largest employers announced they would be shuttering their operations: Pfizer Pharmaceutical, Inc. and *The Ann Arbor News*. Pfizer announced on January 22, 2007, that it would be shuttering its Ann Arbor research and development facilities, and 2,410 individuals would be

discharged. *The Ann Arbor News* announced on March 23, 2009 it would be shuttering its 174-year history (1835–2009) of providing published newspapers Sunday through Saturday (including holidays), and 272 individuals would be discharged (Kosmetatos, 2007; Murray, 2009).

The National Center for Education Statistics (2015) defines the unemployment rate as the percentage of individuals in the civilian labor force (civilian individuals who are not working and who have made specific efforts to find employment within the last four weeks). The unemployment rate reflects net changes in the relative number of individuals who are currently looking for employment. Prior to the Great Recession beginning in 2007, the United States’ employment was 137.6 million, Michigan was 4.27 million, and the unemployment rate in the United States was 4.6% with Michigan at 7.1% (Dabat, Faber, Hartson, Navara, Pepler, Prahl, and Jameske, 2012). (See Table 3: Washtenaw County Total Employment 2007-2009; and Table 4: Comparison of Unemployment Rates 2007-2009).

Following the great recession that began in 2008, lack of employment became a fundamental part of the “new normal” in many communities across the United States. High unemployment rates motivated community colleges to engage in activities to preserve jobs in their regions and extend economic development efforts within their communities. Their activities call attention to one of the often hidden assets that can be utilized in the struggle to stimulate economic development in many communities. Indeed, the community college can be an important asset for the development of economies across the United States. (cited in Lane and Johnstone, 2012, p.192)

Table 3: Washtenaw County Total Employment, 2007–2009

WASHTENAW COUNTY	2007	2008	2009
Total Employed	180,914	177,250	167,377
Total Unemployed	9,068	10,724	14,649

Source: U.S. Department of Labor Bureau of Labor Statistics

Table 4: Comparison of Unemployment Rates, 2007–2009

YEAR	UNITED STATES	MICHIGAN	WASHTENAW COUNTY
2007	4.6 %	7.1%	4.8%
2008	5.8	8.3	5.7
2009	9.3	13.4	8.4

Source: U.S. Department of Labor and Michigan Department of Labor

To boost enrollment during the Great Recession, many community colleges used targeted marketing campaigns for outreach to underrepresented populations with the goal of increasing that population’s exposure to higher education including federal financial aid options (National Student Clearinghouse Research Center, n.d.). Hagedorn, Kinkead, Katsinas, Friedel, and Kennauer (2011) argued that increased federal government investment in the Pell Grant program has been linked to the increases in headcount and enrollment at community colleges during the Great Recession. Another benefit of the federal government investment in Pell Grant funding “may also have helped encourage traditional-age students with financial need to enroll in college—particularly those who otherwise may not have considered postsecondary education” (Kennauer, 2011, p. 46). Community college enrollment during the Great Recession grew rapidly with total undergraduate numbers jumping 4.9% in 2008 and 7.3% in 2009, reaching 18.1 million in 2010 (Wildavsky, 2012). (See Table 5: Comparison Community College Enrollment 2007–2009).

Table 5: Comparison Community College Enrollment 2007–2009

ACADEMIC YEAR	MICHIGAN	% CHANGE (FROM PREVIOUS YEAR)	WCC	% CHANGE (FROM PREVIOUS YEAR)
2007–2008	452,200	.25% decrease	20,796	3% decrease
2008–2009	476,691	5.13% increase	22,163	7% increase
2009–2010	493,678	3.32% increase	23,206	5% increase

Sources: Michigan Department of Energy, Labor, & Economic Growth and Washtenaw Community College

An effect of the Great Recession has been a surge in enrollment at community colleges by many individuals seeking educational training to gain the skills and credentials needed to start new careers or advance in their current position. “Community colleges with their open access and focus on workforce preparation are often highlighted as well suited to provide the education and training needed by adult workers” (Noy and Heidkamp, 2013, p. 1). Merisotis and Jones (2010) emphasized, “For a substantial portion of today’s unemployed, then, one and two-year college credentials offer a viable route back to the American dream” (p. 14). However, another lingering effect of the Great Recession has been the highlighted gaps between those individuals with and those individuals without postsecondary credentials (certificate, associate’s, or bachelors). This gap reinforces an “economic imperative” for more adults to complete postsecondary credentials, including associate degrees and certificates (Kelly and Strawn, 2011). Researchers have documented that individuals having community college credentials benefit from economic returns in the marketplace (Belfield and Bailey, 2011). The Bureau of Labor Statistics (n.d.) reported that associate degree holders earned \$768 per week, and the unemployment rate for those with an associate degree was 6.8%. A primary economic benefit of obtaining postsecondary educational training is still associated with substantially higher earnings among those with credentials than those without credentials (Carnevale, Rose, and Cheah, 2011). The National Conferences of State Legislatures (n.d.) concurred and reported on the potential influence community colleges have in increasing the number of students prepared for middle skill jobs. Students obtaining a credential are more likely to earn more than individuals without some postsecondary credits.

Caroline Hoxby Stanford, economist, co-editor of *How the Financial Crisis and Great Recession Affected Higher Education* (2015), and senior fellow at the Hoover Institution and the Stanford Institute for Economic Policy Research, described how the Great Recession affected student access to higher education.

The evidence shows that students were more likely to enroll in college and were more likely to stay in college during the Great Recession. This may seem surprising, but actually college-going has increased in every recession since the 1960s. What happens is that the opportunity cost of going to college – the job opportunities a person forgoes while in college – drops very dramatically during recessions. It is harder to find a job, to keep a job or to get a promotion. Thus, some people who would not enroll do enroll. People who would drop out stay enrolled. And people who would have taken some time off between undergraduate and graduate school decide to go straight to graduate school. (Cited in Parker, 2015, para. 5)

Today, some of the fastest growing credential programs at a community college are either postsecondary certificates or specific occupational focused associate degree programs. For example, Washtenaw Community College, in its Nursing and Health Sciences programs, includes three Post-Associate Certificates (Computed Tomography, Magnetic Resonance Imaging, and Mammography) and three Associate in Applied Science degrees (Physical Therapy Assistant, Radiography, and Registered Nursing). Another educational opportunity Washtenaw Community College offers Nursing and Health Sciences Associate Degree participants is articulation agreements with four-year Michigan baccalaureate institutions. The associate degree can be used as a gateway for obtaining a bachelor's degree (and afterwards for pursuing a Master's or possibly a Ph.D.) or a management position in healthcare (Washtenaw Community College, n.d.).

Growth in Healthcare Professionals

Growth in healthcare professional and technical occupations in 2010 ranked as the fifth largest cluster and will provide the seventh-largest share of job openings over the next decade. Since the Great Recession began in 2007, demand pressures were so strong that the Healthcare Industry increased employment by almost 650,000 jobs. In fact, the Healthcare Industry was one of the few industries that registered employment gains and was relatively insulated during the recession. All healthcare occupations are projected to experience robust employment growth including registered nursing, which is projected to grow by more than 500,000 jobs and account for most of the growth in the healthcare industry (Carnevale, Smith, and Strohl, 2010).

According to Jacobs (2009), “Moreover, because healthcare occupations are heavily regulated by state licensing requirements, there is a restricted labor supply (only those who pass the test can be employed), which gives community college programs a substantial role in healthcare education” (p. 113). Associate degree registered nurses qualify for entry-level positions, but career pathways into nursing specializations, or research hospitals in many instances, have begun to require a bachelor’s degree. These employment changes in nursing have facilitated many community colleges to develop nursing and healthcare administration articulation agreements with four-year baccalaureate institutions using the assumption that many of their students will want to continue their educational training beyond an associate’s degree. For example, in Michigan, Nurse Practitioners with a master’s degree are projected to grow 19.7% through 2022 and receive a median hourly wage of \$43.88 (Michigan Department of Technology, Management, and Budget, n.d.). Nationally, Medical and Health Services

Managers (healthcare executives or healthcare administrators) are projected to grow 23% from 2012 to 2022 with entry Bachelor's degree. For those with a Master's degree, the median annual pay was \$88,850 or \$42.59 hourly in 2012 (*Occupational Outlook Handbook*, 2015). As the demand for supportive healthcare services continues to expand in most communities, hospitals and other related healthcare organizations have approached community colleges for establishing or maintaining partnerships in occupations such as physical therapy assistants and radiography (Jacobs, 2009).

Following the Great Recession, in fall 2013, Washtenaw Community College began offering eight new certificates and degrees, which represented employment opportunities for its students in a diverse mixture of industries including healthcare. "It is exciting to add so many new programs for fall [2013]," stated Rose B. Bellanca, President of Washtenaw Community College (News & Events, 2013). In response to a community request from St. Joseph Mercy Hospital and University of Michigan Health Systems, Washtenaw Community College began offering an Associate in Applied Science for Certified Surgical Technology [Surgical Technology] in fall 2013. The Surgical technology program would train students to assist in all phases of an operation including pre-op and post-op, and support to the operating room team during an operation (Fitch, 2014; News & Events, 2013).

Conclusion

During the Great Depression (1929–1941), junior colleges, in response to adults requesting job training, expanded their liberal arts curriculum to include vocational training programs. Students who enrolled in these vocational training programs were, in many instances, seeking future financial and job security. Additionally, many pursued

educational advancement beyond an associate's degree. Following a Truman Commission's recommendation, public junior colleges began renaming themselves community colleges to reflect their intimate relationships with their local communities. Public community colleges expanded their adult vocational and workforce retraining programs as well. Public community colleges open-door admission policies were beneficial during the Great Recession (2007–2009), encouraging adult enrollment in community colleges for those individuals seeking new or refurbished vocational skills.

By studying the literature review presented in this chapter, researchers can better understand adult students' motivating factors in their educational and professional achievements. This includes how Washtenaw Community College has been a relevant facilitator for making a positive difference in individuals' lives by (1) providing a caring, open-door teaching and learning environment, (2) reaching out to individuals who have limited income or other barriers to success, and (3) enabling individuals to progress in their academic and career pursuits (Washtenaw Community College, n.d.). Nationally, public community colleges, including Washtenaw Community College, will continue their goal of being community leaders confronting an ever-changing economy by offering workforce education. Community colleges' workforce education enables individuals to pursue employment or advancement in their career choice.

The purpose of this research study is to explore the motivation and purpose of adult learners' enrollment in Washtenaw Community College's Nursing and Health Sciences programs. It is the researcher's hope that the college can utilize the findings of this study to better understand the impact these programs have both on students and the economic prosperity of Washtenaw County.

CHAPTER 3: METHODOLOGY

All great achievements require time.
Maya Angelou

Introduction

The purpose of this research study is to explore students' motivation for selecting vocational training in Physical Therapist Assistant, Radiography, or Registered Nursing in the five years (2010–2015) following the Great Recession (2007–2009). This research study will be conducted using a sample of these students enrolled in Washtenaw Community College, Ann Arbor, Michigan, for fall 2015. The researcher believes there should be an exploration of how the economic impact of the Great Recession influenced adult learners' selection of Physical Therapist Assistant, Radiography, or Registered Nursing for vocational training. In seeking to understand this situation, this study will address two research questions:

1. Was the economic impact of the Great Recession a motivating factor for selecting Physical Therapist Assistant, Radiography, or Registered Nursing vocational training at Washtenaw Community College?
2. Was the Great Recession a triggering factor in the respondents' decisions to pursue Nursing and Health Sciences vocational training at Washtenaw Community College for the (perceived) prospect of future employment security?

This chapter describes the study's research methodology and includes a discussion of the following areas: Research Methodology, Washtenaw Community College,

Rationale for Selection, Sampling Methods, Surveying Procedures, Instrumentation, Data Collection, Validity and Reliability, Research Questions Analysis, Qualitative Coding Process, and Limitations.

Research Methodology

This study was conducted using a combination of qualitative and quantitative research methods. Combining these two approaches provides a better understanding of the effect the Great Recession on students' motivation for selecting vocational training. Creswell and Plano Clark (2007) emphasized that combination research, also called mixed methods approach (1) provides strengths that counterbalance the weakness of both quantitative and qualitative research, (2) provides further comprehensive evidence for conducting research using either quantitative or qualitative research, (3) provides answers to research questions that cannot be answered using either quantitative or qualitative approaches alone, (4) encourages a researcher to think about a paradigm that might encompass both quantitative and qualitative research, and (5) allows a researcher to use a practical approach for addressing a research question. Using a combination mixed methods approach frees the researcher to select all possible methods for addressing a research problem. The intent of quantitative research "is to see how data provided by participants fits an existing theory" explained Creswell and Plano Clark (2007, p. 28). On the other hand, the intent of qualitative research is to learn participants' views about a particular phenomenon" (Creswell and Plano Clark, 2007, p. 28). The primary objective of this research study is having students explain if the impact of the Great Recession was their primary motivating factor for enrolling in Washtenaw Community College and

selecting Physical Therapist Assistant, Radiography, or Registered Nursing as their program of study.

Merriam (2009) further explained that qualitative research is interpretive, and “the researcher is interested in understanding (1) how individuals interpret their experiences, (2) how individuals construct their worlds, and (3) what meanings individuals attribute to their personal experiences” (www.merriam-webster.com/). Quantitative research, however, examines the inextricable link between designing researchable question(s), measurement, and analysis because these are the three indispensable components of good research (Pedhazur and Schmelkin, 1991). Vogt (2007) noted the nature of quantitative research questions also determines whether or not it is appropriate to conduct research investigations. Using a combination of qualitative and quantitative research methods provides the best methods for acquiring knowledge about the impact of the Great Recession on vocational training in Physical Therapist Assistant, Radiography, or Registered Nursing at Washtenaw Community College following the Great Recession (2010-2015).

Washtenaw Community College

The research for this study was conducted at Washtenaw Community College, a comprehensive community college, which is an open access institution dedicated to “students, community, and staff success” (Washtenaw Community College Mission Statement). Established in January 1965 following a Washtenaw County residential election, today the college’s main campus is strategically located on 285 acres at the mid-point for Washtenaw County between Ann Arbor, Michigan, and Ypsilanti, Michigan. Between September 1966 and September 1970, Washtenaw offered classes at its

temporary campus in Willow Run, Michigan (located between Ypsilanti, Michigan, and Belleville, Michigan). The college began the transition to its main campus between January 1970 and September 1970 (Furlong-Reynolds, 2004). For fall 2015, Washtenaw Community College's enrollment was 12,211 (Evan L. Montague, Associate Vice President for Recruitment & Student Enrollment, Personal Communication, October 15, 2015). Washtenaw Community College offers a diverse mixture of Certificates and Associates Degrees: Certificates (47), Advance Certificates (22), Post Associate Certificates (3), Associates in Applied Science (18), Associates in Arts (15), Associates in Science (21), and Associates/3+1 Articulation Transfer Agreements (36) with various post-secondary institutions in Michigan (Washtenaw Community College, n.d.). Washtenaw County is located in Southeastern Michigan approximately 30 miles west of Detroit, Michigan, and covers an area of 720 square miles. Its dimensions are 30 miles east-west and 24 miles north-south with a land area of 705.97 square miles. The present location of the college's main campus was selected because it represented the mid-point for the county and is located three miles between Ann Arbor, Michigan, and Ypsilanti, Michigan (<http://www.ewashtenaw.org>; Furlong-Reynolds, 2004).

Rationale for Selection

For Academic Year 2015–2016, the Nursing and Health Sciences Division at Washtenaw Community College offers a diverse mixture of 13 programs: Certificates (5), Associates in Science (1), Associates in Applied Science (5), and Post-Associates Certificate (2). However, this research study was conducted using only five of these 13 programs: (both Post-Associate Certificates) Computed Tomography and Magnetic Resonance Imaging, Physical Therapist Assistant, Radiography, and Registered Nursing

(all Associates in Applied Science) using a population of 276 students who declared these designated programs as their major for fall 2015 (see Table 6: Population of Targeted Students). These five programs were selected because they were being offered at the college during the Great Recession and because of the likelihood that some of these students began their prerequisite course requirements or were waitlisted for one of these programs from 2009–2015.

Table 6: Population of Targeted Students

PROGRAMS	STUDENTS
Associate in Applied Science	
Registered Nursing	185
Radiography	50
Physical Therapist Assistant	31
Post-Associate Certificate	
Computed Tomography	5
Magnetic Resonance Imaging	5
Total	276

Source: Roger Mouard, Director Institutional Research, Personal Communication, October 15, 2015

Sampling Methods

Nonprobability sampling was used to conduct this research study because it is used in educational settings especially when random selection is not available. Sue and Ritter (2012), Vogt (2007), and Merriam (2009) also noted that nonprobability sampling is the method of choice for most qualitative research. Nonprobability convenience sampling (also called opportunity sampling) was used to select candidates for the study. Using convenience sampling as Henry (2005) cautioned, “[is] often used in evaluations, but the results that are obtained are less likely to reflect the study population accurately” (p. 403). Convenience sampling (opportunity sampling) is a non-probability sampling technique where participants are selected because of their convenient accessibility to the

researcher. The convenience sampling technique is also used when the researcher is willing to confine him- or herself to discussing only his or her sampling results, when the researcher will not be generalizing the sample results to a population outside of the targeted population, and when respondents were selected because of location and availability (Sue and Ritter, 2012; Vogt, 2007; Merriam, 2009).

The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; CFR Part 99) is a federal law that protects the privacy of students' educational records. This law is applicable to all post-secondary institutions that receive federal funding under an applicable program administered by the U.S. Department of Education [Federal Financial Aid]. Washtenaw Community College currently accepts federal funding [Federal Financial Aid] and is required to be in compliance with FERPA guidelines. As a result, the nonprobability convenience sampling method was selected for this research study because of a Washtenaw Community College administrator's concerns about providing the researcher access to students' private contact information without their consent of release for this research study. To address this issue, the designated targeted population were contacted using the group email listing [without personal contact information] provided by the Director of Institutional Research at Washtenaw Community College. Each solicitation email stressed to students that participation in this research study was voluntary and only involved completing an anonymous online survey.

Surveying Procedures

Hawkes (2005) reported that electronic surveying has revolutionized survey research. Electronic surveying [web based] "[is] developed with design tools and can accommodate any range of item types including dichotomous answer questions (yes-no,

true-false), multiple choice, ranking and scaled response options, and open-ended questions” (Hawkes, 2005, p. 123). Internet research encompasses inquiries that includes uses the Internet for collecting data or information conducting online interviews, surveys, archiving, or automated means of data scraping (Markham and Buchanan, 2012). Internet research ethics (IRE) has been defined as the “analysis of ethical issues and application of research ethics principles as they pertain to research conducted on and in the Internet” (Stanford Encyclopedia of Philosophy, 2012, para 7):

Research ethics is a balance between risks and benefits, assurance of the rights of individual participants and the fair selection of research populations. Researchers are required to ensure that participants autonomously and voluntarily consent to take part in research. An informed consent process that describes the research study explains the rights of participants and states the risks and benefits associated with participation, ultimately protects both the researcher and the participant (Cited in Convery and Cox, 2012, p. 50).

Internet-based research (IBR) is broadly defined as research which uses the Internet to collect information using an online tool [such as Survey Monkey] for conducting online surveying (Stanford Encyclopedia of Philosophy, 2012; Massat, McKay, and Moses, 2009). In 1974, the U.S. Department of Health and Human Services published the basic regulations governing the protection of human subjects, which is codified as 45 CFR part 46, subparts A through D, and which subsequently led to the enactment of the 1974 National Research Act (Public Law 93-348). The National Research Act created the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, which in 1978, published the *Ethical Principles and Guidelines for the Protection of Human Subjects Research* called the Belmont Report (NCPHSBBR 1979). The *Belmont Report* identified three fundamental ethical principles for all human subject research: Respect for Persons, Beneficence, and Justice (U.S. Department of Health & Human Services; Stanford Encyclopedia of Philosophy, 2012).

With the increased use of electronic surveying, the researcher also needs to consider the ethical issues or standards applicable when conducting research using this format:

1. The researcher must obtain informed consent. Since traditional procedures are no longer applicable, creative procedures will need to be developed for obtaining consent and determining that the respondent is an adult eighteen years or older (Hewson, Yule, Laurent, and Vogel, 2003).
2. The researcher must establish procedures for ensuring that confidentiality and security information is maintained (Hewson, Yule, Laurent, and Vogel, 2003).
3. The researcher will establish evaluations for determining which information is public information and what private information is. A determination must also be made concerning the applicability for using this information for researcher purposes (Hewson, Yule, Laurent, and Vogel, 2003).
4. The researcher will develop procedures for ensuring that respondents have not been harmed and appropriate follow-up has been provided to the respondents (if applicable) (Massat, Mckay, and Moses, 2009, and Hightower and Scott, 2012).

There are two advantages for using a survey: (1) questionnaires are more reliable. (because of respondent anonymity, questionnaires encourage greater honesty, although dishonesty and falsification might not be detectable), and (2) there is a reduction of administrative and other costs. There are two disadvantages for using a survey: (1) there is a real probability of a low response rate, and (2) the researcher is unavailable to answer respondents' questions, concerning the purpose of the questionnaire (Cohen, Manion, and Morrison, 2007). The central issue to consider in using a survey is the reliability and validity of the sampling. An unrepresentative, skewed sample, one that is too small or too large, can easily distort the data, and indeed, in the case of very small samples, can prohibit statistical analysis (Morrison, 1993). While a nonprobability sampling method

will generally produce a non-representative sample, it will provide enough answers to encourage further review and reflection.

The researcher believed that the targeted population selected for this study had experience accessing and using electronic communications, and they had the capacity for completing an online survey. Prior to participating in the online survey, the researcher informed the students their participation is voluntary, they cannot be harmed by completing the survey, and their answers cannot be used to influence their continued enrollment in Washtenaw Community College. The students for this study were also informed that this research study has been reviewed and approved by Ferris State University Institutional Review Board (IRB) for Human Participants and Washtenaw Community College Vice-President for Instruction.

Instrumentation

Sue and Ritter (2012) suggested the following four reasons for using online surveying: (1) the benefit of data being automatically posted to a database affording quick data analysis; (2) no additional staffing expense is required for administration of survey; (3) distribution of the surveys with quick responses and returns; and (4) online surveys are easier to use with populations of interest that have either Internet or mobile phone accessibility. Researchers Bachmann and Moroney (2015) also recommend four additional reasons for using online surveying: (1) the online questionnaire development site is usable without assistance by an intermediary; (2) the online survey can be customized to meet researcher requirements and objectives; (3) the online survey site hosting the questionnaire does not require the researcher to use additional software; (4) questions are easy to reorder and mistakes can be easily corrected.

Social science research is the scientific study of human society and social relationships (Oxford Dictionaries.com). The narrowest definition is simply the study of human interaction and organization (Mendeley.com). For this research project, Survey Monkey was used because it is acceptable for social science research projects. Survey Monkey is a free or fee for-service online program that enables researchers to design a survey for a targeted population and directs responses to a secure online site for retrieval. Survey Monkey was an appropriate tool because it is an acceptable social research tool for open, closed, multiple choice questions, and for written responses. It also collects responses from a targeted population within a designated period of time and provides descriptive analysis results (Massat, McKay, and Moses, 2009). The researcher used Survey Monkey for soliciting information for the online survey and for analyzing the eight descriptive questions and five qualitative questions. The researcher was responsible for coding the five qualitative questions for this survey, as well as for conducting the analysis of the data.

Data Collection Procedures

Data for this research study were collected using a 15-question online survey that contained a combination of ten quantitative and five qualitative questions: academic objective, motivation, demographics, and personal suggestions. The data were collected using Survey Monkey, an online survey provider. The respondents were students who had declared and were enrolled for fall 2015 in five designated programs: Post-Associate Certificate: Computed Tomography and Magnetic Resonance Imaging, and Associate in Applied Science: Registered Nursing, Physical Therapist Assistant, and Radiography at Washtenaw Community College. The targeted population was 276 students enrolled for

fall 2015 in the five designated programs at Washtenaw Community College, and 69/276 or 25% of the students responded to the survey. The researcher emailed each participant an Invitational Flyer one week before the online surveying began. The purpose for the Invitational flyer was to inform students about the study and to solicit their participation in the study (see Appendix F: Invitational Flyer).

1. The online survey was available for 30 days following the distribution of the initial Invitational Flyer. The online solicitation process included an email requesting participation, the survey informed consent statement, and the online survey (see Appendix G: Requesting Participation and Appendix H: Survey Informed Consent Statement and Survey). Two reminder emails were sent two weeks after surveying began and two days before the survey ended (see Appendix I: 1st Reminder Email and Appendix J: Final Reminder Email). Note: If the projected sample size had not been achieved, the online survey would have been extended for an additional 14 days, and an additional reminder email would have been sent (see Appendix K: Extension of Email Survey).
2. The survey data were downloaded to a USB disk, and data analysis was conducted using Survey Monkey. The qualitative questions were printed and analyzed for coding.
3. The post survey Margin of Error (confidence level and sample size) were recalculated to determine what the real margin of error turned out to be after conducting the online surveying. This step was necessary for determining the validity of the conclusions (Hightower and Scott, 2012).
4. Descriptive statistics were used to summarize the demographic information, and inferential statistics were used to make inferences about the Physical Therapist Assistant, Radiography, or Registered Nursing population at Washtenaw Community College.

Validity and Reliability

Cohen, Manion, and Morrison (2007) reported the validity and reliability in a questionnaire is determined by responder responses: (1) whether or not the respondents who did complete the questionnaires did so accurately, honestly, and correctly; and (2) whether the respondents who failed to participate would have given the same responses as the returnees who did. Researchers Donald T. Campbell and Julian C. Stanley in

Experimental and Quasi-Experimental Designs for Research on Teaching (1963) were credited with identifying the phrase threats to validity. In general, validity refers to the degree to which the instrument(s) truly measures what it purports to measure (Roberts, 2010). Maxwell (2005) defined validity as a goal instead of a product that should never be taken for granted. Validity is also relative and should be assessed in relation to the purposes and circumstances of the research. Ultimately, the use of validity in quantitative and qualitative research differs. In quantitative research, validity means that the researcher can draw meaningful inferences from the results to a population. In qualitative research, validity involves assessing whether the information obtained through the data collection process is accurate (Creswell and Plano Clark, 2007; Lincoln and Guba, 1985). Threats to external validity involve having difficulties making conclusions based on the evidence collected in the sampling (Vogt, 2007). Threats to construct validity occur when there are problems with the researcher selection measures or inadequate operational definitions (Vogt, 2007). Threats to statistical validity occur when the researcher makes poor choices in the selection of statistics to be used in the analysis of the data (Vogt, 2007). Threats to internal validity occur when “mistakes [are made] that can lead to errors in reasoning about cause and effect” (Vogt, 2007, p. 122).

The researcher identified four threats to validity that would have the potential of impacting the research study’s results: (1) aggressively seeking responses from participants which may negatively affect students being willing to participate in the online survey; (2) not reviewing and carefully selecting appropriate research selection methods and operational definitions could affect anticipated results (thus, care must be exercised throughout the survey and statistical analysis process); (3) the researcher’s lack

of experience conducting research may bias or negatively influence the selection of analytical statistics methods such as reviewing and selecting appropriate analytical statistics methods for the research study; and (4) the researcher's inexperience may also influence the identification of cause and effect and its impact on the research process and results.

Reliability, on the other hand, is the degree to which the instrument(s) consistently measure something from one time to another (Roberts, 2010). Reliability also refers to the extent that research findings can be replicated. In social sciences, as Merriam (2009) explains, reliability is problematic because human behavior is never fixed. Instead, reliability research design "is based on the assumption that there is a single reality and that studying it repeatedly will yield the same results" (p. 220). Hudson and Miller (1997) offered four strategies for maximizing response rates to a questionnaire which increases reliability. The first involves organizing multiple rounds of follow-up requests asking respondents to complete and return the questionnaire. For this research study, an initial invitational email and three subsequent emails will be used for soliciting voluntary participation. Stressing to the respondents the importance and benefits of completing the questionnaire and for helping future enrollees in their program of study should increase responses. Question 15 in the online survey specifically asks participants to offer suggestions for improving their educational experience at Washtenaw Community College (see Appendix H: Survey Informed Consent Statement and Survey). Stressing to the respondents the detailed features of the questionnaire including ease of completion, time commitment for completion, sensitivity of the questions asked, and the length of the questionnaire is designed to ensure responses. The initial and subsequent

emails stress to participants the time required to complete the online survey and that the online survey is only fifteen questions. The respondents are encouraged to participate by a friendly third party. The researcher will communicate with the department heads for the Nursing, Physical Therapist Assistant, and Radiography programs soliciting their assistance in asking their students to go online and complete the survey (see Appendix F: Invitational Flyer).

A primary threat to reliability, as Wolcott (2005) cautioned, is the inappropriateness of considering reliability in studying human behavior because in order to achieve reliability, a researcher has to manipulate conditions so that replicability can be assessed. The replicability of this research study's results at another institution(s) may be restricted because the Nursing and Health Science students targeted for this study were only enrolled in Washtenaw Community College. However, with minor modifications, the research study could be amended for use in other community colleges with similar Nursing and Health Sciences programs.

The following tables (7 and 8) reflect the solicitation of information used in the study. Table 7 is a listing of the qualitative and quantitative questions that were used to solicit student responses about how the Great Recession triggered their decisions to seek Nursing and Health Sciences vocational training at Washtenaw Community College in the years 2010–2015. Table 8 shows the coding listings used for the qualitative questions responses by applicable categories (see Table 7: Research Questions Analysis and Table 8: Qualitative Coding Process).

Table 7: Research Questions Analysis

Q #	CATEGORY	TYPE	REPORTED AND DISPLAYED
ACADEMIC INFORMATION			
1	Nominal	Closed Question	Selection of program of study
2	Ordinal	Multiple Choice	Primary educational objective
3	Nominal	Closed Question	Year pre-requisite courses for program of study began
4	Nominal	Closed Question	Year admitted into program of study
MOTIVATION			
5	Nominal	Closed Question	Employment status between 2007-2009
6	Qualitative	Open Question	Explanation of employment situation between 2007-2009
7	Qualitative	Open Question	Type of work performed between 2007-2009
8	Qualitative	Open Question	Motivation for enrolling in Washtenaw
9	Ordinal	Multiple Choice	Selection of program of study
10	Qualitative	Open Question	Future career goal(s)
DEMOGRAPHICS			
11	Nominal	Closed Question	Gender
12	Nominal	Closed Question	Ethnicity
13	Ratio	Closed Question	Current age
14	Ordinal	Closed Question	Highest educational level completed before enrolling in program of study
SUGGESTIONS FOR IMPROVEMENT			
15	Qualitative	Open Question	Student suggestion(s) for improving their academic experience at Washtenaw Community College

Table 8: Qualitative Coding Process

STEP ONE: SEPARATION OF ONLINE QUALITATIVE QUESTIONS
The five qualitative questions are separated into individual groupings. The researcher carefully reads each individual response and groups the responses into categories for reporting in the dissertation. The researcher will either highlight or jot down in the margins ideas as they come to mind for coding the responses.
STEP TWO: ORGANIZATION AND INITIAL CODING OF ONLINE QUESTIONS
The researcher reads through each of the five qualitative questions again, highlighting pertinent information and developing a master coding list of response categories and frequency. A notecard or letter size sheet of paper is used for listing the suggested coding information for each of the five questions (see Appendix L: Coding).

STEP THREE: REEVALUATE ONLINE QUESTIONS AND FINALIZE CODING

Using the master coding list developed in Step 2, the researcher will code each of the five qualitative questions noting any new additions or subtractions in a response category. The researcher using this information will revise and finalize the revised coding list (see Appendix L: Coding).

STEP FOUR: COMPLETION OF DATA ANALYSIS AND REPORTING OF FINDINGS

After completing Step 3, the researcher will perform a final analysis on each of the five qualitative questions and separate them by category. Performing this review will result in themes, patterns, and categories for the five questions which will be reported in Chapter 4: Analysis or Chapter 5: Conclusion.

STEP FIVE: ASSESSMENT OF VALIDITY OF FINDINGS

The researcher will conduct a final review of the five questions to determine that the findings and the main themes and patterns are consistent with the data (Roberts, 2010). A comparison of the literature will also be made to ascertain whether the findings are supported or not supported by the literature (Boullion, 1996).

Limitations

As with all research, limitations exist. This researcher has considered the following factors:

1. The respondents to the survey are being asked to provide their definition for their life situations; however, they may deliberately distort or falsify information (Cohen, Manion, and Morrison, 2007).
2. If the sample size is not sufficiently random, an inferential analysis may overstate the accuracy of the results because the analysis only considers random error (Hightower and Scott, 2012).
3. Survey Monkey's limitation of 30 days for a free ten questions survey or the impact caused by paying either a monthly or yearly fee for more than ten questions may affect the availability of the survey.
4. Online surveys are great as long as all the respondents from whom information is requested have computer access (Bleyer and Joiner, 2009).
5. There is an issue of generalizability and replication of the study, because of the sampling method selected (Nonprobability Sampling) and not being able to generalize the results of the study beyond the targeted population.

6. A possible issue exists due to the number of respondents to the online survey request and the potential impact of this on the analysis of data and generalizability of results, including overstating the results.
7. The selection process used for selecting the survey methods and survey questions used for soliciting data for analysis is limited.

Conclusion

This chapter described the research procedures that would be used for implementing and collecting the data for this study using students enrolled for fall 2015 semester in Physical Therapist Assistant, Radiography, or Registered Nursing at Washtenaw Community College.

CHAPTER 4: DATA ANALYSIS

All great achievements require time.
Maya Angelou

Introduction

As stated in Chapter One, the purpose of this research study is to describe adult learners' motivation for enrolling in Physical Therapist Assistant, Radiography, or Registered Nursing programs at Washtenaw Community College in the five years following the Great Recession and to identify the factors that influenced this decision. This chapter is organized to address two research questions that were posed in Chapter One:

1. Was the economic impact of the Great Recession a motivating factor for selecting career training in one of these three designated programs?
2. Was the Great Recession a *triggering event* in selecting a future career in one of the three designated programs in Nursing and Health Sciences due to perceived long-term employment security?

The researcher used Survey Monkey to solicit responses to a 14-question online survey with the 15th question being optional. The 14-question survey was sent to the designated 276 Nursing and Health Sciences students enrolled for fall 2015 and 69 (25%) students responded. The 14-question survey was completed by 60 (87%) and nine (13%) were incomplete. According to Survey Monkey (2016), when a respondent clicked the "Done" button, that response was labeled as "Complete" without consideration for the number of questions the respondent answered or skipped. Question 15 was an optional

open-ended question: 36 (52%) responded and 33 (48%) skipped this question. According to Survey Monkey (2016), because question 15 was optional, respondents were able to click the “Done” button and submit their responses whether or not they completed this question. For the respondents who did complete question 15, the system reported the comments and reported these as completed responses.

The five qualitative survey questions were evaluated using a coding process for categorizing the data. Merriam (2009) defined coding as nothing more than assigning some sort of shorthand designation to the qualitative (subjective) data so the researcher can easily categorize or retrieve specific pieces of the data. The coding categories were constructed using Merriam’s (2009) suggestions for data analysis: (1) the categories were responsive to the purpose of the research; (2) the categories were exhaustive; (3) the categories were mutually exclusive; (4) the categories’ naming was as sensitive as possible to what was in the data; and (5) the categories were conceptually congruent or characterized by categories at the same level.

The findings for this research study will be discussed using the following four categories: Academic Objective, Demographics, Motivation, Respondents Suggestions, and Research Analysis. Each of these category groupings was designed to reflect the uniqueness of the respondents’ answers to a specific question.

Academic Objectives

What is your Nursing and Health Sciences Program of Study at Washtenaw Community College?

Sixty-eight (98.6%) answered this question, and one (1.4%) skipped this question. Registered Nursing was selected by 43 (63%), and Radiography was selected by 15 (22%) (See Table 9: Program of Study Comparison.)

Table 9: Program of Study Comparison

	# OF RESPONSES	PERCENTAGE
Post Associate Certificate Computed Tomography	2	3
Associate in Applied Science Physical Therapy Assistant	8	12
Associate in Applied Science Radiography	15	22
Associate in Applied Science Registered Nursing	43	63
Total Responses	68	100

What is your primary educational objective for attending Washtenaw Community College? Select the top 3 motivating factors and rank them (1 = top, 2 = middle, and 3 = last).

Sixty-seven (97.1%) answered this question, and two (2.9%) skipped it. The two top priorities were to earn an Associate Degree 37 (71.15%) and job/career change 21 (44.68%). The two middle priorities were to transfer to a four-year institution 20 (57.14%) and for personal enrichment 14 (50%). The last priority was to learn new skills for a current job 8 (57.14%). The following table is arranged to explain respondents' level of priorities for each of the possible seven options. The numbers also represent the respondents' choices of the assumed motivating factors (see Table 10: Primary Educational Objectives).

Table 10: Primary Educational Objectives, by Priority

PRIORITY		1	2	3	4	5	6	7	TOTAL
To earn a Post-Associate Certificate	#	3	3	6	0	0	0	4	16
	%	18.75	18.75	37.50	0.00	0.00	0.00	25.00	
To earn an Associate Degree	#	37	12	2	0	0	1	0	52
	%	71.15	23.08	3.85	0.00	0.00	1.92	0.00	

PRIORITY		1	2	3	4	5	6	7	TOTAL
Transfer to a four-year institution	#	4	20	8	1	1	1	0	35
	%	11.43	57.14	22.86	2.86	2.86	2.86	0.00	
For personal enrichment (self-improvement)	#	0	14	12	2	0	0	0	28
	%	0.00	50.00	42.86	7.14	0.00	0.00	0.00	
To learn new skills for my current job	#	0	0	8	0	5	0	1	14
	%	0.00	0.00	57.14	0.00	35.71	0.00	7.14	
Job/career change	#	21	8	14	3	0	1	0	47
	%	44.68	17.02	29.79	6.38	0.00	2.13	0.00	
Other	#	0	2	6	0	0	2	1	11
	%	0.00	18.18	54.55	0.00	0.00	18.18	9.09	

What year did you begin the prerequisite courses for your Nursing and Health Sciences Program of study at Washtenaw Community College?

Sixty-seven (97.1%) answered this question, while two (2.9%) skipped it, and 11 (16.4%) respondents indicated they began their prerequisite courses for their Nursing and Health Sciences program during the Great Recession (2007-2009). However, 46 (68.7%) respondents indicated they began their prerequisite courses for Nursing and Health Sciences in the period following the Great Recession, 2010–2015 (see Table 10: Comparison of Prerequisite Courses and Program Admission).

In what year were you admitted into your Nursing and Health Sciences program of study at Washtenaw Community College?

Sixty-three (91.3%) answered this question, while six (9.5%) skipped it. The majority of respondents (35) (55.6%) gained admittance and began their Nursing and Health Sciences program of study in 2015 (see Table 11: Comparison of Prerequisite Courses and Program Admission).

Table 11: Comparison of Prerequisite and Program Admissions

YEAR	PREREQUISITE COURSES	PROGRAM ADMISSION
2000	1	
2004	1	
2005	1	
2007	6	1
2008	6	
2009	5	
2010	9	
2011	9	
2012	12	1
2013	11	8
2014	5	18
2015	1	35
Total Responses	67	63

Demographics

It is imperative to note that the gender and the two primary ethnicities reflected below are only representative of the survey respondents and the fall 2015 enrollment in the targeted programs or Washtenaw Community College student body as a whole.

What is your gender?

Fifty-seven (82.6%) answered this question, and 12 (17.4%) skipped it. Of those fifty-seven, 49 (85.96%) females and eight (14.04%) males answered this particular question.

What is your ethnicity?

Fifty-eight (84.1%) answered this question, and 11 (15.9) skipped it. Forty-seven (81.03%) respondents selected White or Caucasian, and seven (12.07%) selected Black or African American as the two primary ethnicities. The ethnicities Asian and Other were each selected by two (3.4%) respondents.

What is your age?

Fifty-six (81.2%) answered this question while 13 (18.8%) skipped it. The age mean was 29 years, the median was 33 years, and the mode was 25 years. Ages ranged from 20 years to 53 years with 26 respondents' ages being less than the average age of 29 years (see Table 12: Age Comparisons).

Table 12: Age Comparisons

AGE GROUP OF RESPONDENTS'	TOTAL RESPONDENTS'	% OF RESPONDENTS''	AVERAGE AGE
20-29	28	51.9%	25
30-39	16	29.6%	34
40-49	8	14.8%	45
50-59	2	3.7%	52
Total	54	100%	

What is your educational background (Select the highest level already completed?)

Fifty-seven answered (82.6%) this question. Twelve (17.4%) skipped it. The degree attainment ranged from high school diploma to master's degree with the two highest responses being, 24 (42.1%) high school diploma and 15 (26.3%) Associate degree (see Table 13: Degree Attainment).

Table 13: Degree Attainment

	RESPONSES	
	#	%
General Education Development (GED)	0	0.00
High School	24	42.11
Technical School	2	3.51
Certificate	6	10.53
Associate Degree	15	26.32
Bachelor's Degree	9	15.79
Master's Degree	1	1.75
Doctorate	0	0.00
Other	0	0.00
Total Responses	57	100

Motivation

The qualitative coding used to describe the respondents' responses was designed to reflect the actual response of the survey takers.

What was your employment situation between 2007–2009 prior to beginning your prerequisite courses for your Nursing and Health Sciences program of study at Washtenaw Community College? (250 words or less) (Please be specific)

Sixty-seven (97.1%) answered this question while two (2.9%) skipped it. The responses ranged from unemployed, homemaker, working full-time, part-time, multiple jobs, secondary enrollment, and other. Four of the respondents were employed in medical occupations. There was a diverse mixture of full-time employment, and two of the respondents were in middle school in 2007-2009. One of the respondents indicated being employed prior to the Great Recession but was laid off during the Great Recession. For the 51 (76.1%) respondents who were employed, each worked in a diverse mixture of occupations including being self-employed, medical, professional, and semi-professional. Although 76.1% of the survey respondents were employed during the Great Recession, they wanted stable employment with benefits. For many of the respondents, obtaining stable employment with benefits was important. Stable employment represented a steady job with dependable income, long term employment, and opportunities for promotional advancement. For example, one respondent indicated that having income from two part-time jobs was not sufficient, and another respondent, who was self-employed, did not have health or life insurance. Below are the actual comments provided by the respondents to the open-ended questions.

Secondary Enrollment

- I was a student in high school (freshman/sophomore), and chose to wait to finish my college education before pursuing a professional career. I have never been employed as of today.

- Student in high school and part-time job
- Student, I was 12-14 years of age, so I was dependent on my parents for income.
- I was unemployed and attending a high school in the area.
- I was a high school student.
- I was in middle school.
- Worked part-time. I was only 16-18. Graduated high school in 2009.
- I was in high school. No employment.
- Casual employment. In high school.
- I was just out of high school.
- Homemaker
- I was a housewife.
- Stay at home mom.
- Dad

Part-time Employment

- 2007-2008: high school student and part time waitress
- 2009: part time certified nursing assistant and full time college student.

Multiple Employment

- I worked two jobs from 2007 up until I began the actual Radiography program.
- Working two jobs in retail during that time. Both I enjoyed, but cannot afford to pay bills making so little.
- I was working at Walmart. After I got my CNA I went to work as a medical assistant.
- I worked full time only during the summer. I either worked part time or not all during the winter and fall semesters.
- I worked as an assistant manager at Subway and I also worked as a custodian at U of M hospital. I worked about 60 plus hours a week between both jobs.

Full-time Employment

- Manager
- Private duty home healthcare aide.
- Waitress
- I worked as a medication tech for an assisted living program, and administered morning medication to approximately 30 clients in their apartments.
- I worked full time as a certified nursing assistant.
- Bartending and serving 30-40 hours a week.
- Started college in 2007 full-time alongside a full-time job at U of M security department.
- Worked in a clinic.
- I was employed as an accountant at the University of Michigan in the International Institute.
- Full time high school teacher.
- Full time employment at DTE Energy Resources as a records analyst in the Information Management department.
- Full time at McDonalds, then full time at Henry Ford hospital 2009-present.
- Worked as a research specialist.
- Retail store management.
- Worked full-time as a CNA.
- Lab tech at St. Joes
- Worked in the health information management field.
- Full time employment as a church administrator.
- Full time lab tech.
- When I started perquisites in 2008, I was employed in Saline at a salon as a licensed cosmetologist. I was on a commission base pay with no health or life insurance.

- I didn't graduate from high school until 2010. 2007-2009 I worked at a Frank's Place in Manchester, Michigan as a waitress and pizza staff. After I graduated high school I moved out to Kalamazoo and worked at Western Michigan University's Center for Disability Services from 2010-2012.
- I was employed full time as an optician and then as an optical manager.
- I was a full time employee in the medical field, radiographer.
- Never really has a problem being employed, but I've always been one who strives for improving myself and my situation. The Radiography program at WCC was amazing and I am very happy to be continuing with the CT program.
- Office administration for home improvement company.
- Ran my own business.
- Fabrication of built in and stand-alone furniture for schools and hospitals.
- Full time day shift medical secretary.
- Employed as a Sales Associate.
- I was a store manager at a retail location in Twelve Oaks Mall.
- Full time hair stylist

Other

- Purchasing and then laid off during economy crash.
- Daycare
- I owned my own business (hair salon). I became a parent in 2009, so with being my own boss I could work my schedule so they did not need to go into daycare.
- In 2007 through the first half of 2008, I was primarily a stay-at-home mom, but I also had some part-time work.
- Employed (This comment was made by six respondents)
- Unemployed (This comment was made by five respondents)

Were you employed at some point between 2007 and 2009?

Sixty-eight (98.6%) answered this question, and one (1.4%) skipped it. Of the 68 (68.6%) respondents who answered this question, 51 (75%) indicated yes, and 17 (25%) answered no. The 51 (75%) respondents who answered yes were asked to provide information about the type of work they performed during the Great Recession. The following are the actual comments provided by the survey respondents.

Administrative

- Security screener at University of Michigan Hospital. Greeted patient visitors, made sure they were authorized to be there and created visitor badges for them.
- Compliance/administrative
- I was clerical lead in a Family Medicine clinic
- Fast food, then Emergency room registration
- Customer service-office
- Office administration for home improvement company
- Office administrator

What type of work did you do between 2007 and 2009? (250 words or less) (Please be specific)

Fifty answered (72.5%) this question, and 19 (27.5%) skipped it. The responses ranged from employment in administrative, hospitality industry, medical, professional, service industry, and other. Most of the respondents were employed in the medical field, for example, as a radiographer, CNA, or medical assistant. Of the respondents, 11.5% were employed, in some manner, in the medical or medical related fields. This tells us 88.5% of the respondents were involved in jobs totally unrelated to the medical field, yet they chose to make the change to the medical field concentration.

Hospitality Industry

- Managed a restaurant and bartending

- Waitress and management
- Waitress
- Serving and bartending
- Food service work
- Waitress/Pizza staff

Medical

- Paramedic
- I was a certified nursing assistant
- CNA full-time in long-term facility
- Lab tech
- Optical
- Radiographer. I performed radiographic procedures for hospitals.
- Medical transcription
- Stocker and medical assistant
- Ran my own business then CNA
- Medical secretary
- Cashier, then Nursing Assistant (CNA)
- Retail management/Medical Assistant

Professional

- Accounting
- High school teacher
- Purchasing/Inventory Control Supervisor
- I did both in vivo [*sic*] and in vitro bio-medical experiments
- Store manager of big box retail management stores
- Health information management

- Full time employment as a church administrator. This includes accounting practices, HR, payroll, events planning, etc.
- I worked at a salon as a licensed cosmetologist, specializing in natural hand and foot care.
- General Merchandise co-manager and worked at a ball-park on the baseball field.
- I worked from home about 15 hours a week with an automotive internet company doing online training and consulting. The company had an email application to follow up with internet customers. I trained sales reps how to use our system. I would go into the office one day a month. After my second child was born, I was laid off from that position.

Service Industry

- Daycare
- Retail (clothing)
- Cosmetologist
- I worked in home repair and maintenance, working for various banks, lending agencies, and government branches in preparing and maintaining foreclosed property. I also worked at St. Joseph's Mercy Hospital Ann Arbor as a Patient Companion.
- Retail (This comment was made by two respondents)
- Sales
- I was an assistant manager at Subway and was a custodian at the University of Michigan hospital where I cleaned discharged rooms.
- Hair stylist and retail

Other

- I worked at McDonald's as a shift manager, Circle K as a gas station clerk, and Sam's Club as a supervisor and cake decorator.
- Part time job
- School
- I worked two jobs. I worked at a carry out place and at St. Joes in the lab.
- Waitress 2007–2008, CNA 2009

- Fabrication of built in and stand-alone furniture for schools and hospitals.

What was your motivation for making the decision to enroll in your Nursing and Health Sciences program of study at Washtenaw Community College? (250 words or less) (Please be specific)

Sixty-two (89.9%) answered this question. Seven (10.1%) skipped it. The responses ranged from affordability, career change, financial security, personal accomplishment, program reputation, and other. Wanting to make a difference in their patients' lives, establishing a better future for themselves and their family members, learning new or improved job skills, tuition affordability, or the college's reputation were the most prevailing reasons many of the respondents used for enrolling specifically in Washtenaw Community College.

Affordable

- It was affordable
- Most accessible school from home, reasonable price
- Price and location
- Location to home and low tuition rates
- Low tuition
- The cost of tuition

Career Change

- I've worked in the hospital setting for about eight years now. I started as a custodian and am now a psych care worker; [I] and have doing this job for the last six years. I love my job so nursing seemed like the next logical step to a better career that I would enjoy.
- I wanted a change of career. I was a medical assistant for several years and decided to want something more for myself.

Financial Security

- I wanted a career that was both personally satisfying, yet realistic and would help me gain an entry level position so that I could begin a professional career. I plan to continue my education and pursue a

doctorate degree, but I want to also have experience and be able to support myself financially. That way I can truly be successful and independent.

- Wanted a real job and have money for my kids
- To have a better future
- I don't want to be a nurse aid for the rest of my life. I want more for myself and my family. I want a chance at putting my kids through college without debt. Give them more opportunities than I have had.
- Change of career – financial opportunities – parents aging and soon to be in need of additional care
- Wanted new career with better pay
- To pursue my RN after my children were in school, ultimately personal fulfillment and financial security for the future of my family.

Institutional Reputation

- Best Associate degree nursing program in the area. Affordability was also important.
- A good friend of mine was diagnosed with brain cancer. I saw his radiographic images and became very interested in the field. WCC is only two miles from my home and has a well-organized radiography program.
- Good school, respected program, cheap tuition
- Word of mouth, heard it was a great program
- The cost and the good things
- Cost, convenience, and reputation of program
- The price the college and the reputation on the nursing program
- To learn new/improved job skills
- Career transition. The cost of WCC and the credibility that its nursing program has in the community is unmatched.
- It has a great reputation for educating nurses and making sure they are prepared for the workplace.

Personal Accomplishment

- Wanting a career in the health field

- I have always wanted to work in the medical field and when I learned of the Radiography Program at WCC and did some research in the field I was immediately interested. When I took the Intro to Radiography course I was sold. The science in addition to the patient care had my heart and mind. I wanted to help people and still have a unique relationship with science. This was perfect for me.
- Lack of respect by my coworkers and management. I always wanted to go back to school and get a degree. Want to be a nurse
- I have always wanted to work in the medical field and thought nursing would be a good fit for me. I like caring for others.
- I wanted to advance in healthcare
- I want to be a nurse but not be crazy in debt from an expensive school.
- I wanted and still want to be a dual-certified radiographer
- I have always been interested in a career in healthcare, and the Radiography program also gives me the opportunity to be in a field of constantly evolving and cutting edge technology. Whats [*sic*] not to love?
- Physical Therapy has been my dream job since I was injured in high school and had to do physical therapy for recovery.
- I wanted to continue my education in nursing to obtain my degree.
- Wanted to begin my career as quickly as I could. I wanted to graduate with something that I am passionate about doing.
- I needed to pick a program that would put me on the path to graduate. I had almost all the credits I needed to get into the nursing program.

Other

- I love the medical field and caring for others.
- The requirements for applying
- I wanted to work in a field that had a lot of demand, where I could be on my feet; I would help people, and didn't have to start a Bachelor's program in order to get into the work place.
- To help people
- As a kid, I wanted to be a field medic in the military. I later realized I wasn't military material but still wanted to help people.

- Good career field to go into
- They [WCC] had a childcare center on campus that was convenient, safe, high-quality, and extremely affordable.
- I have always had a passion for nursing
- Be a nurse
- To better my future

What was your personal motivating factor for pursuing Nursing and Health Sciences career training at Washtenaw Community College? Select the top 3 motivating factors and rank them (1=top, 2=middle, and 3=last).

Fifty-five (79.7%) answered this question, while 14 (20.3%) skipped it. The two top priorities were the opportunity for long-term growth (15, or 41.67%) and job/career change (9, or 40.91%). The two middle priorities were financial security (18, or 56.25%) and job/employment stability (10, or 29.41%). The third priorities were job/employment stability (12, or 36.29%), which was slightly higher than number two priority and self-improvement (9, or 56.25%). (See Table 14: Personal Motivating Factors.)

Table 14: Personal Motivating Factors

		1 (HIGH)	2	3	4	5	6	7	8 (LOW)	TOTAL
Opportunity for long-term career growth	%	41.67	33.33	19.44	5.56	0.00	0.00	0.00	0.00	
	#	15	12	7	2	0	0	0	0	36
Financial security	%	25	56.25	15.63	0.00	3.13	0.00	0.00	0.00	
	#	8	18	5	0	1	0	0	0	32
Job/employment security	%	26.47	29.41	35.29	8.82	0.00	0.00	0.00	0.00	
	#	9	10	12	3	0	0	0	0	34
Attractiveness of the career	%	39.13	26.09	17.39	8.70	4.35	4.35	0.00	0.00	
	#	9	6	4	2	1	1	0	0	23
Self-improvement	%	6.25	12.50	56.25	0.00	12.50	12.50	0.00	0.00	
	#	1	2	9	0	2	2	0	0	16
Transfer to a four-year institution	%	15.38	7.69	30.77	0.00	0.00	15.38	15.38	7.69	
	#	2	1	4	0	0	2	2	1	13
	%	40.91	4.55	27.27	0.00	9.09	0.00	9.09	9.09	

		1 (HIGH)	2	3	4	5	6	7	8 (LOW)	TOTAL
Job/career change	#	9	1	6	0	2	0	2	2	22
To learn new or improve job skills	%	16.67	16.67	8.33	0.00	8.33	16.67	16.67	16.67	
	#		2	1	0	1	2	2	2	12
Other	%	0.00	12.50	37.50	0.00	0.00	0.00	0.00	12.50	
	#	0	1	3	0	0	0	0	1	8

What is your career goal? (250 words or less) (Please be specific)

Fifty-five (79.7%) answered this question; 14 (20.3%) skipped it. The responses ranged from Bachelor degree, Radiography Post-Certificate, graduate school, professional employment, registered nursing, and other. Several of the respondents indicated that in the future they wanted to give back to their community while enjoying what they were doing. The respondents' primary answer to this question was acquiring the skills necessary for succeeding professionally while gaining knowledge and valuable experience. The following are the respondents' own comments.

Bachelor's Degree

- To continue on in my field, get a Computed Tomography (CT) certification and possibly move onto earn my Bachelor's degree.
- To receive my Bachelor's and possibly further.
- Plan to earn an Associate, complete a certificate in Magnetic Resonance Imaging (MRI) and transfer for a Bachelor's degree.
- BSN
- Bachelor degree in nursing
- To earn my BSN from Eastern Michigan University (EMU)
- To graduate with an associates and then transfer to obtain my BSN.
- To earn my BSN. I haven't decided on the field I want yet.
- To get a BSN in nursing

- To be a BSN

Registered Nursing

- To be an RN with a degree
- Become an RN
- RN

Professional Employment

- Manager of Radiology [*sic*]
- RN working with Alzheimer's and related dementias patients and or end of life hospice care patients.
- Radiographer
- To obtain a career & to be the most successful radiographer I can possibly be.
- Become a nurse
- Geriatric nursing
- Specialize in Magnetic Resonance Imaging (MRI)
- I plan to be a Physical Therapy Assistant (PTA). I look forward to working with and helping patients.
- Be a nurse
- Work as a full-time Physical Therapist Assistant
- My career goal is to be a full-time Physical Therapy Assistant (PTA) and I am hoping to work with the geriatric population. I would like to work in a nursing home or home health.
- My goal changes all the time. At the moment, work in Computed Tomography (CT) long enough to get my loans and other debts paid down. Be financially stable for a few years. Move on to Radiation Therapy pay off debts, get stable. Move on to Dosimetry [*sic*]. Pay off debts, get stable. Maybe move into Medical Physics? I'm sure it will change again soon.

Professional Employment

- I want to finish the Radiography program and then move onto the Mammography post certificate.
- Mammography
- To become certified in as many radiography modalities as possible.

- To get my degree and pass the national exam to become a certified tech. After getting a job I would ultimately like to continue my education and become a Computed Tomography (CT) tech.
- Be certified in different radiology [*sic*] modalities
- To eventually become a nursing advisor at university

Graduate School

- To become a doctor (MD)
- Nursing, hopefully Neonatal Intensive Care Unit (NICU) at some point.
- Continue my education toward a Master's degree in Nursing
- To continue education till I have a Master's or more. As long as money and time permits.
- Family Nurse Practitioner (FNP)
- To become a Certified Nurse Midwife
- Intensive Care Unit (ICU) nurse or Physician's Assistant (PA)
- I want to be become either a Registered Nurse Anesthetist (RNA) or Family and Community Nurse Practitioner (FCNP).
- RN-BSN-MSN (This comment was made by two respondents)
- Become a Nurse Practitioner
- After I graduate from WCC with my Associate's degree, I plan to work using my degree as soon as possible. After I am employed somewhere as a nurse, I will go on and obtain my Bachelor's degree in nursing. After my Bachelor's degree, I would like to obtain my Master's degree and become a nurse practitioner before having my first kid.
- I would like to work as a hospice nurse and obtain my MSN.
- Attain a MSN in nursing, and become a nurse educator.
- To get my BSN and maybe after that move on to my Master's.
- To become a RN, in particular a Labor & Delivery or ER nurse and give back to our community.
- Nurse Practitioner
- To become a Doctorate in Physical Therapy (DPT) and possibly open my own practice.

Other

- To reach my highest potential while continuing to gain knowledge and valuable experience as well as skills that are necessary to succeed.
- As it stands I am considering pursuing a higher degree level in physical therapy field, but am keeping my options open once I start in the field.
- I would like to eventually manage a radiography department or teach. These are goals for when my children are in high school. Currently I would be happy to find contingent work.
- At this point since I didn't complete the program, I am not sure I might try again in the near future, or consider other options.
- To enjoy what I do
- Uncertain

Respondents' Suggestions

I'd like to make the following suggestions for improving my educational experience at Washtenaw Community College (250 words or less) (Please be specific)

This question was optional. Thirty-one (44.9%) answered, and 38 (55.1%) skipped it. Eleven (35.5%) of the 31 responses will be used in Chapter Five as respondents' suggestions for improvements at the college. The responses themselves were grouped into three categories: encouragement, concerns, and other. Four of the respondents were very pleased and enjoyed their experiences in their program of study. However, a general lack of communication was the largest concern by many of the respondents to the survey. For example, respondents cited lack of communication about campus resources, lack of information about the program of study that could have impacted personal decisions to stay with the selected major, and announcements about course availability and being able to adjust course schedule accordingly as major concerns.

Encouragement

- Continue to support, encourage and foster growth our learning environment.

- I love it here
- I am actually quite pleased with my experience at Washtenaw. There are many resources available that I did not even know existed that help me to excel in the nursing program. All of my professors and clinical instructors will do anything to help us succeed and understand the information that we are learning. I am very proud to be a part of Washtenaw's nursing program.
- I have no complaints about WCC I've enjoyed my time there.

Concerns

- Because the majority of instructors in the WCC nursing program are such highly qualified, professional, passionate and talented teachers, it makes the few who do not possess those qualities even more distinct. There are a few instructors of prerequisite courses who should simply not be teaching.
- Ask more questions, interact with the class more.
- The director should be more clear about what classes can be taken before entering the program. It would help lighten the work load.
- Students don't know of all the programs that are available to help them. More guides I guess to show all that the college has to offer. Many don't know about tutoring. Or the learning support services.
- It would be nice if there were constantly working coffee machines. The program is good, it's hard, but it's good.
- Knowledge at the beginning of the journey. Too much information came too late. After the pre-reqs [*sic*] and 1½ years on waitlist THEN I got information re: nursing program that had I known before I invested all of the time and money I would have chosen a different path. The nursing program is too difficult for those struggling to make ends meet and not receive any government asst [*sic*] because although I took thousands of dollars of loans out just to get to nursing school, they have no problem kicking me out of work (which I HAVE to do) and clinicals clash. It's more stress than I would have taken on had I known, but now all my eggs are in this one basket and I could possibly lose everything, as if losing a great job during the depression wasn't loss enough.
- Having more efficient ways of learning the material. Not tricking us on exams or having two correct answers. Tell us what to focus on because everything is not possible and we are getting burned out. *...providing...power point slides to the students or giving us enough time to write down the information.
- *Name redacted

- Because the majority of instructors in the WCC nursing program are such highly qualified, professional, passionate and talented teachers, it makes the few who do not possess those qualities even more distinct. There are a few instructors of prerequisite courses who should simply not be teaching.
- Ask more questions, interact with the class more.
- The director should be more clear about what classes can be taken before entering the program. It would help lighten the work load.
- Students don't know of all the programs that are available to help them. More guides I guess to show all that the college has to offer. Many don't know about tutoring. Or the learning support services.
- It would be nice if there were constantly working coffee machines. The program is good, it's hard, but it's good.
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- I wish the healthcare counselor was more helpful and encouraging. The general counselors were a lot more helpful. It took me two months to get an appointment with her and she was very discouraging and not helpful. She told me I might want to switch my major because of the intensity of the program. I am currently doing awesome in my program.
- Make blended courses optional. Not everyone learns well by teaching themselves the entire course.
- Schedules are not always clear even when clinicals are posted. Multiple mistakes on paperwork that is sent out (documents are often "copied" from previous documents and vital information is not changed ex dates for orientation). Devices and programs that are necessary for completing work need to be specified ex Linux not be supported by ATI or the college, cell phones with good service needed for certain clinicals.
- The nursing program admin is unorganized. Emails containing important information are flaky and leave questions and dates are reported to us at the last minute. Also, NUR courses total less than 12 credits hours per semester

making it difficult for employee education leave and financial aid requirements. Some clinical placements are outside Washtenaw County.

- I wish there was more organization in the nursing department. I feel like I find out at the last minute about tests and schedules.
- Schedules are always announced at the last minute and never allow for any classes other than the nursing program required courses and even many of those need to be taken before admittance or during the summer to fit into the schedule. This is frustrating to say the least. Making the schedules line up from one 7.5 weeks to the next would be so much easier even if that was simply lecture time and clinicals were at some other time.

Other

- I think you should be able to work through the program at your own pace, for those of us who have to work. The program is stressful enough! But I missed my goal by 1 point in my last class and since I had to retake pharm and postpone another class due to health reason I wasn't able to complete the program. It was a big upset for me being that I fought all the way until the end and then didn't succeed with completing the program. So now I'm stuck in limbo trying to figure out what to do now.
- I'm kind of a go with the flow person. I adjust to my surroundings, don't really have a suggestion.
- None at this time.

Research Analysis

Merriam (2009) indicated “descriptive means that the end product of a case study is a rich, ‘thick’ description of the phenomenon under study” (p. 43). The terminology *Thick Description* is also used to indicate the complete, literal description of the entity being investigated or studied (p. 43). Descriptive and ANOVA statistics will be used in this section to help describe, demonstrate, or summarize the quantitative data from chapter four in a meaningful way for illustrating depicting pattern(s) that might emerge from the data.

A comparison the Demographic survey results (Survey Monkey) with Washtenaw Community College (Fall 2015 Student Profile) or Washtenaw County (2015 Washtenaw County Quick Facts from the United States Census Bureau) revealed:

Gender

Forty-nine (86%) female response rate to the survey exceeded the male five (14%) response rate. This was also representative in that female enrollment exceed male enrollment for fall 2015 at the college. For fall 2015, in all of the Department of Nursing and Health Sciences programs the enrollment was 1,546 (79.1%) female and 408 (20.9%) male. In Washtenaw County, the residential count for females was 50.5%, which exceed the male residential count of 49.5% (Office of Enrollment Services, 2015; Washtenaw County, 2015).

Ethnicity

White (Caucasian) 47 (81%) and Black or African American seven (12.1%) were the two largest responding ethnicities for the survey. This response rate is also representative of the college's fall 2015 enrollment. For Washtenaw County in 2015, the Caucasian population was 74.3% and the Black or African American population was 12.8%. For fall 2015, the Nursing and Health Sciences Division at the college had the highest percentage of Black or African American enrollment of 35% (Office of Enrollment Services, 2015; Washtenaw County, 2015; See Table 13: Ethnicity and Age Distribution Washtenaw Community College, Fall 2015).

Educational Attainment

Prior to enrolling in one of the designated programs of study for the survey, 24 (42.1%) of the respondents had obtained a high school diploma, 15 (26.3%) had achieved an Associate's Degree, and nine (15.8%) had a Bachelor's Degree. Compared to the fall 2015 college enrollment, 46% of the enrolled students had a high school diploma, 42.2% had an Associate's Degree, and 14% had a Bachelor's Degree (Office of Enrollment Services, 2015).

Age

The average age of the survey respondents was 29 years compared to the college's fall 2015 average enrollment age of 26.5 years. The survey respondents' average age exceeded the fall 2015 enrollment for the college. Also for fall 2015, the actual enrollment in Nursing and Health Sciences programs was 1,889 (adjusted to reflect students age 18 and over), females 1,491 (62.3%) and males 398 (21.1%). The Michigan Community College Association (MCCA) (n.d.) reported an average age of 25.7 years for the state's 28 community colleges (Office of Enrollment Services, 2015; Michigan Community College Association, n.d.; see Table 15: Fall 2015 Ethnicity and Age Distribution for Washtenaw Community College).

Table 15: Ethnicity and Age Distribution, Washtenaw Community College, Fall 2015

ETHNICITY	#	%	AGE	#	%
Asian	536	4.5	Less than 15	36	0.3
Pacific Islander	26	0.2	15-19	3,454	28.3
African American	1,934	16.3	20-24	4,058	33.2
Hispanic	715	6.0	25-44	3,710	30.4
Native American	60	0.5	45-59	747	6.1
2 or more	549	4.6	60 and older	204	1.7
White	8,070	67.9	Not Given	2	0.0
Unknown	321	n/a			
Total	12,211	100.0	Total	12,211	100.0

Source: Office of Enrollment Services, 2015

ANOVA

Two survey questions were analyzed using one-way analysis of variance (ANOVA) to determine whether there were any significant differences between the means of three or more independent (unrelated) groups for these survey questions. A standard probability of $p < .05$ was used to determine the statistical significance for each of these two questions because $p < .05$ is usually indicative of being statistically significant. Vogt (2007) defined statistical significance as $p < .05$ if a result is likely to be due to chance less than 5% of the time. Question two asked the respondents to comment on their educational objectives, and question nine asked the respondents to reflect on their personal motivations for pursuing Nursing and Health Science studies at Washtenaw Community College.

According to Frank Gerlitz, professional faculty in mathematics at Washtenaw Community College, Tables 16 and 17, which reference questions 2 and 9, may be explained in the following terms: “ $V(x)$, [where] X = the dependent variable, which is the nine columns of measurements (data) that ran across the page . . . all those numbers. The subgroups [*sic*] . . . were the nine reasons for collecting the data (down the page on the

left-independent variable). [T]he statistics compare the v(x) between the groups and within the groups” (Personal Communication, 16 September 2016). In this study, the independent variable being analyzed was respondents’ motivation. Question 2 focused on educational intention, and question 9 focused on personal incentives. Respondents were asked to choose their top three priorities from a list of seven and nine preferences respectively (see Table 16: Analysis of Variance, Q#2 and Table 17: Analysis of Variance, Q#9).

Question 2: *What is your primary educational objective for attending Washtenaw Community College?*

Analysis

There was no significant difference between the means $p < .05$, which indicates that the Great Recession was not a primary motivating factor for or in enrollment at Washtenaw Community College (see Table 16: Analysis of Variance, Q#2).

Table 16: Analysis of Variance, Q #2

SOURCE	DF	ADJ SS	ADJ MS	F-VALUE	P-VALUE
Factor	6	1185	197.5	0.75	0.611
Error	42	11026	262.5		
Total	48	12211			

Source: Frank Gerlitz, Professional Physics and Mathematics Faculty, February 12, 2016

Question 9: *What was your personal motivating factor for pursuing Nursing and Health Sciences career training at Washtenaw Community College?*

Analysis

There were no significant differences between the means for $p < .05$, which indicates the Great Recession was not a primary motivating factor for pursuing Nursing and Health Sciences career training at Washtenaw Community College (see Table 17: Analysis of Variance, Q#9).

Table 17: Analysis of Variance, Q #9

SOURCE	DF	ADJ SS	ADJ MS	F-VALUE	P-VALUE
C1	8	34938	4367	0.62	0.759
Error	72	508203	7058		
Total	80	543141			

Source: Frank Gerlitz, Professional Physics and Mathematics Faculty, February 12, 2016

Questions 2 and 9 ANOVA further discussion

The ANOVA analysis for questions two and nine presents a comparison of Nursing and Health Sciences respondents' descriptions of their preferences or choices for selecting Washtenaw Community College for vocational training. Question #2 focuses on defining the respondents' primary educational objective, regardless of individual preference within the Nursing and Health Sciences division, in choosing Washtenaw Community College. Question #9 asks the respondents to reflect on their personal motivating factors in choosing a Nursing and Health Sciences career training program at Washtenaw Community College. What is apparent is that respondents chose this community college and these programs based on factors not obviously related to the Great Recession but quite possibly triggered by it:

- Perceived opportunities for long-term growth (41.6%)
- Job/career changes (40.9%)
- Perceived attractiveness of the career (39.1%)
- Perceived employment security (26.5%)
- To learn new or improve job skills (16.6%)
- Ability to transfer credits to a four-year institution (15.3%)

Conclusion

This chapter presented the survey results for the Nursing and Health Sciences survey that was used to assess respondents' motivating factors for enrolling in Washtenaw Community College. The survey results indicated the respondents perceived personalized economic benefits to be the primary motivating factor for enrolling. Economic benefits focused on obtaining professional employment, financial security, and career change with the opportunity for future educational achievement beyond Associates degree. The respondents' future employment in medical positions where they are able to give back by providing leadership for their clients was also highlighted.

One difficulty encountered in analyzing the results of this study survey was the inability to break down the respondents' answers by demographics (such as age, gender, and ethnicity) since that information was withheld from this researcher due to the Washtenaw Community College Institutional Researcher's concerns regarding students' privacy. This researcher, then, was unable to make the desired alignment of the sample to the general population in fall 2015. In the future, individual demographic data would be helpful in making comparisons between respondents and their motivations clearer.

CHAPTER 5: DISCUSSIONS AND RECOMMENDATIONS

The goal of education is the advancement of knowledge and the dissemination of truth.
John F. Kennedy

Introduction

This chapter will present a summary of the Nursing and Health Sciences study conducted at Washtenaw Community College in Fall 2015 including significant conclusions that were drawn from the data presented in Chapter Four. Chapter Five will also provide a discussion about the implications for action and recommendations for future research.

The topics discussed in this chapter include Summary of the Study, Purpose Statement, Methodology Review, Research Analysis, Research Review and Literature, Implications for Action, Recommendations for Future Research, Conclusion, and Concluding Remarks.

Summary of the Study

Since 1929 community colleges have been acknowledged for their leadership role in providing workforce education designed to prepare individuals for work in a diverse range of occupations and industries. Workforce education is defined as the education and training programs for individuals that are designed to enhance their employment skills to gain or maintain socio-economic status (Katsinas, 1994). Total enrollment at community colleges across the United States grew exponentially both during and after the Great

Recession. During the Great Recession, nationally, community college enrollment increased 4.9% from 2007 to 2008. From 2008 to 2009, enrollment increased 7.3%, and enrollment ultimately reached 18.1 million in 2010 (Wildavsky, 2012). The American Association of Community Colleges (2006) advocated for community colleges to offer an economical, value-driven education, while providing a medium for addressing, the multitude of challenges facing communities today. According to the National Commission on Community Colleges (2008), community colleges award more than 800,000 Associates degrees and certificates annually and also certify 50% of all health-care workers and registered nurses. According to President Barak Obama (n.d.):

In the coming years, jobs requiring at least an associate degree are projected to grow twice as fast as jobs requiring no college experience. We will not fill those jobs – or keep those jobs on our shores – without the training offered by community colleges. (Building American Skills Through Community Colleges, n.d.).

This research study described the 69 respondents' (age 18 and over) motivation for enrolling in Physical Therapist Assistant, Radiography, or Registered Nursing at Washtenaw Community College in the five years following the Great Recession and identified the factors that influenced this decision.

Research Questions

This research study focused on two primary concerns: (1) did the economic impact of the Great Recession affect the respondents' choice of career-training, and (2) did concern for future employment security factor into this choice.

The research questions were designed to elicit both qualitative and quantitative responses. The qualitative responses were able to be coded into logical groupings. The

two quantitative questions allowed analysis of variance to show whether or not the Great Recession was, indeed, a motivating factor for enrollment in Washtenaw Community College.

1. Was the economic impact of the Great Recession (2007–2009) a motivating factor for selecting Nursing and Health Science career training at Washtenaw Community College?
2. Was the prospect of future employment security a factor in selecting Physical Therapist Assistant, Radiography, or Registered Nursing training at Washtenaw Community College?

Research and Literature Review

Fink (2010) described the research and literature review section as a comparative analysis of information found in the literature review compared to the research findings. This comparative literature review can be presented as a description, summarization, evaluation, or clarification of the research literature. The purpose for preparing the research and literature review is to convey what knowledge and ideas the researcher has learned on a particular topic. The research and literature review section will also describe pertinent relationships between the research study results with the literature review presented in chapter two prior to conducting the research study as suggested by Roberts (2010).

Literature Review and Research Survey Results

Gladding (2006) asserted that *motivation* is an individual's behavior that is initiated by needs and directed towards accomplishing specific goals. Pintrich (2003) defined *Intrinsic Motivation* as an individual's desire to do or achieve something because one truly wants to and takes pleasure or sees value in doing so. Pintrich (2003) defined

Extrinsic Motivation as an individual's desire to do or achieve something not for the enjoyment of the thing itself, but because doing so leads to a certain result.

It appears obvious to this researcher that three extrinsic motivations were the respondents' primary reasons for enrolling because they only wanted to achieve a particular desired result. The three largest selections from the responders about their motivation for enrolling in Washtenaw Community College were:

- Opportunity for long-term career growth (41.67%).
- Job/career change (40.91%) Attractiveness of the career (39.13%)
- Job/employment security (26.47%)

The three lowest selections for respondents' motivation for enrolling in Washtenaw Community College were as follows:

- Transfer to a four-year institution (15.38%)
- To learn new or improve job skills (16.67%)
- Self-improvement (6.25%)

Again, respondents' motivations appear more extrinsic in that they were outwardly goal oriented. Guthrie (2003) further indicated that working adults seeking upgrading and retraining of their knowledge and job skills are individuals who are either underemployed or unemployed. Each of the following responders' responses indicated they wanted to reach their highest potential while continuing to gain knowledge and valuable experiences including the professional skills that are necessary to succeed.

- The ultimate goal of 50 (72.5%) of the respondents was to either obtain professional employment or obtain a diverse mixture of degrees in higher education.
- Bachelor Degree in Registered Nursing or another professional field was the goal for 14 (20.3%).

- Graduate school for either obtaining a Master's or doctorate degree was the goal for 18 (26.1%).
- Seeking professional employment in a diverse mixture of medical occupations was the goal for 18 (26.1%).

Thus, the respondents' viewing medical training as a hedge against future unemployment or underemployment.

Unexpected Findings

Roberts (2010) indicated that unexpected research survey results are “the unanticipated outcomes of your study” (p. 179). The researcher hypothesized the Great Recession (2007–2009) and the five years following would be the respondents' primary motivation for enrolling in Washtenaw Community College for Nursing and Health Sciences training. Instead, the security of future economic benefits was the respondents' primary motivating factor enrolling in Washtenaw Community College. In many instances, the respondents indicated either directly or inferred that the economic benefits would be either their future salary or benefits that could be saved or generated as a result of their action for seeking professional employment training at Washtenaw Community College.

The researcher's largest difficulty, when it came to adult learners, as the American Council on Education (2006) explained, was finding national (including state and local) data about adult learners and academic success for research purposes: “The lack of research in this area is that no consensus has been reached on how to define success for adult learners” (p. 33). Researcher Aslanian (2001) defined a trigger event as a specific event that “precipitate(s) the [individual's] decision to learn at that point in time” (p. 16). Further research on how these trigger events impact adult learners'

academic success would prove beneficial to community colleges in general and to Washtenaw Community in particular.

Implications for Action

In the survey, respondents offered a number of suggestions for Washtenaw Community College in moving forward with the Nursing and Health Sciences programs. These suggestions focused on improving student satisfaction with the Nursing and Health Sciences programs and was rooted in the respondents' own experiences. Respondents expressed concern about the lack of spring/summer nursing classes. They wanted improved organization of course objectives to include lecture and clinical courses in the fourth semester as well as making the hours and days of the library more accessible. Establishment of mentoring programs between alumni and currently attending nursing students and first and second year students. Students also requested development of a test taking class based on the NCLEX style question requirements as a supportive addition to the program.

The survey respondents provided a number of suggestions for improving their educational experience at Washtenaw Community College. While some of these may not be economically possible at this time, they are worthy of future consideration. Other suggestions such as job shadowing and greater freedom in applying skills developed through clinical training may require serious reevaluation on the part of both the school and clinical training medical facilities. Individual respondents' suggestions for improving the Nursing and Health Sciences Programs included

- Nursing [classes] should go part of summer
- Spring/summer course options for the nursing program

- More graduated and employed students can consult current nursing students
- The program could implement more opportunities for interaction between the classes (1st years/2nd years). This would be good for morale, encouragement, support.
- More scholarship opportunities, have the junior nursing instructor staffs shadow the senior instructors prior to being put on the job.
- Please develop a test taking class for nursing students. This is something I severely suffered through while in the nursing program. Me and other students had a lot of troubles with NCLEX style questions.
- To better structure their lecture and Clinical courses for the 4th semester students.
- The Fundamentals of Nursing clinical locations should allow for more than being able to apply basic skills learned in CNA training which [is] a prerequisite for the nursing program. The confidence level of the nursing students was hindered from not being able to apply nursing skills learned during fundamentals.
- Having the library open longer on Saturdays and Sundays. Having it open twenty-four hours.
- Having more healthcare career paths available. More certificates for post radiography associates like nuclear medicine.

Recommendations for Future Research

Between 2007 and 2015, Washtenaw Community College used a waitlist process to determine eligibility for admission to its Nursing and Health Sciences Programs. The waitlist time period was the difference between being approved for the waitlist after completing the prerequisite requirements for application for admission into their designated program of study and being admitted into their program of study. The waitlist mean was 3.4 years, the median was 4.5 years, and the mode was 2 years (Survey Monkey, 2015; Personal Communication: Hannah Hann, Second Tier Admissions Technician, February 4, 2016). In fall 2014, the school switched to a competitive application for admission to the Nursing and Health Sciences programs. Applicants are

still required to meet all prerequisite requirements for admission, and applicants will be ranked based on a point system with the best qualified applicants being selected for admission. In the future, effectiveness of this point system for selecting qualified applicants for admission may require re-evaluation, but that is not the focus of this research.

Washtenaw's collaborative relationships with its diverse mixture of colleges and universities in Michigan, (the college currently has an Articulation Agreement with several of its designated Nursing and Health Sciences programs) should be strengthened by conducting research on their effectiveness for helping students in obtaining their Bachelor's degrees. To keep Washtenaw Community College competitive, further research should be conducted into the effectiveness of these programs for those Nursing and Health Sciences students wanting to pursue a Bachelor's degree.

Washtenaw currently offers onsite transfer offices with the University of Michigan, Eastern Michigan University, Concordia University, and Ferris State University. Further research should be conducted into the effectiveness of these offices for assisting Washtenaw Nursing and Health Sciences students in their transfer, retention, and completion rates at these particular institutions. Further, this research should be carried into the larger Michigan community college/university system. This is the best way to ascertain the full effectiveness of such "programs."

A research study conducted by the Department of Education, Office of Vocational and Adult Education (2009) about programs to transition adults into postsecondary education concluded that "very little research has been conducted that included rigorous measurement of outcomes, and evidence is limited about what works and what does not

work to help adults transition to higher education” (Noy and Heidkamp, 2013, p. 23).

This research study would be an opportunity for future research at Washtenaw Community College and the broader Michigan community college community.

Finally, this study could prove useful if conducted within the broader academic and vocational programs of Washtenaw Community College (i.e., automotive and motorcycle technology, construction technology, criminal justice and law enforcement, culinary arts and hospitality management, as well as academic transfer and university parallel programs). Further, sharing the results of this study with other Michigan community colleges could benefit not only traditional students but also influence the creation of programs designed for the recruitment and retention of adult learners.

Conclusion

Public community colleges in the United States have not only survived, they have flourished and become the institutions that the Commission on Higher Education (Truman Commission) envisioned in the 1940s. The Truman Commission Report in 1947 called for the establishment of a network of public community colleges that would offer equality of opportunities for all and for a massive expansion of higher education in the United States (Drury, 2003). President Truman has also been acknowledged for his contributions in the furtherance of public community colleges as vital educational resources for workforce job skills training. Community colleges, as workforce job skills training centers, are vital in helping individuals acquire the job skills necessary for the United States to continue be a leader and competitor in the global economy. Today, the American Association of Community Colleges (2006) advocates that public community

colleges continue to be vital resources for helping millions of individuals in achieving their educational, personal, and professional goals.

The passage of the Michigan Community College Act of 1966 is illustrative of Michigan Governor George Romney's (1963–1969) and the Michigan Legislature's support of President Truman's vision for the future of community colleges. Following the passage of this act, community advocates in Washtenaw County sought the approval of county residents for the creation of a community college in the county. In January 1965, the residents of Washtenaw County approved the creation of Washtenaw Community College and the college's initial Board of Trustees. In December 1965, the college's Board of Trustees approved the purchase of Huron Valley Farms Apple Orchard (235 acres) because it was located halfway between Ann Arbor, Michigan, and Ypsilanti, Michigan. In 2015, Washtenaw Community College celebrated its *50th Anniversary of Opening Doors*, and during these fifty years, the college has been recognized both locally and nationally for its excellent history of developing, implementing, and offering a diverse mixture of Nursing and Health Sciences programs. Today, the Nursing and Health Sciences programs include an Associate Degree in Applied Science for Physical Therapist Assistant (offered for nine years), Radiography (offered for forty-nine years), and Registered Nursing (offered for forty years).

Following the purchase of the apple orchard in 1965, the college's initial president Dr. David Ponitz (1965–1974) was recognized for coining the phrase “The Miracle in the Apple Orchard” for describing the awe felt by everyone when the college discovered and acquired its new home for its main campus on the Huron Valley Farms

Apple Orchard (Furlong-Reynolds, 2004). Today, the college's marketing campaign exemplifies Dr. Ponitz's vision of the purchase as a "Miracle in the Apple Orchard."

What do you call someone who went to Washtenaw Community College? Employed!!

- *Physical Therapy Assistant*
- *Radiography*
- *Registered Nursing*

Concluding Remarks

This research study began under the assumption that the Great Recession was students' motivation for enrolling in Washtenaw Community College. What was discovered was that future economic benefits were the primary reason for enrolling. This is not to say that the Great Recession didn't influence enrollment; rather, the economic uncertainties of the time period motivated students to pursue future financially secure career options.

Community colleges including Washtenaw Community College are presumed to have two primary goals:

1. To prepare students for vocational employment.
2. To provide students with transferable credits to four-year institutions.

More than half of the respondents to the survey had experiences in diverse workforce environments of employment. Of the respondents, 11 (16%) were already employed in healthcare related occupations, and 16 (23%) were employed in non-healthcare related fields. The commonalities between these two groups included (1) a desire for the employment stability offered by the medical field, (2) the greater employment opportunities afforded the respondents with an Associate's Degree in

Nursing and Health Sciences, and (3) creation of an economic safety net over the uncertainties and stagnations of their previous employment/occupations experiences.

Why do students select Washtenaw Community College? Washtenaw Community College students may be more vocationally inclined than others due to the impact on jobs in Washtenaw County during the Great Recession. The respondents to the survey viewed job security as their primary benefit for enrollment in a Nursing and Health Science program. Washtenaw Community College assists students in achieving their educational goals. It reduces the cost of education (including student debt) and time involved to achieve an Associate's degree:

- Total tuition is significantly lower at Washtenaw Community College than public or private four-year institutions. Students who attend Washtenaw Community College with the intention of completing the Associate's degree see this as a primary economic factor in their decision.
- Academic preparation for transfer to Bachelor degree programs, this has become a major economic consideration.

The college's reputation for providing a quality education and employment possibilities after completion of an Associate's degree. I'd like to conclude with the words of gospel singer Yolanda Adams:

*Keep the dream alive don't let it die
If something deep inside keeps inspiring you to try, don't stop
And never give up, don't ever give up on you
Don't give up
Yolanda Adams (Never Give Up)*

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APPENDIX
A: FSU IRB APPROVAL

Institutional Review Board for Human Subjects in Research
Office of Academic Research, 220 Ferris Drive, PHR 308 • Big Rapids, MI 49307

Date: October 2, 2015

To: Dr. Sandra Balkema and Ms. Romona Williams

From: Dr. Gregory Wellman, IRB Chair

Re: IRB Application #150906 {The Great Recession (2007-2008), Motivation for Vocational Change: A Case Study Conducted at Washtenaw Community College, Ann Arbor, Michigan)

The Ferris State University Institutional Review Board (IRB) has reviewed your application for using human subjects in the study, "The Great Recession (2007-2008), Motivation for Vocational Change: A Case Study Conducted at Washtenaw Community College, Ann Arbor, Michigan" (#150906) and determined that it meets Federal Regulations Exempt-category 1C. This approval has an expiration date of three years from the date of this letter. As such, you may collect data according to the procedures outlined in your application until October 2, 2018. Should additional time be needed to conduct your approved study, a request for extension must be submitted to the IRB a month prior to its expiration.

Your protocol has been assigned project number (#150906), which you should refer to in future correspondence involving this same research procedure. Approval mandates that you follow all University policy and procedures, in addition to applicable governmental regulations. Approval applies only to the activities described in the protocol submission; should revisions need to be made, all materials must be approved by the IRB prior to initiation. In addition, the IRB must be made aware of any serious and unexpected and/or unanticipated adverse events as well as complaints and non-compliance issues.

This project has been granted a waiver of consent documentation; signatures of participants need not be collected. Although not documented, informed consent is a process beginning with a description of the study and participant rights, with the assurance of participant understanding. Informed consent must be provided, even when documentation is waived, and continue throughout the study via a dialogue between the researcher and research participant.

As mandated by Title 45 Code of Federal Regulations, Part 46 (45 CFR 46) the IRB requires submission of annual reviews during the life of the research project and a Final Report Form upon study completion. Thank you for your compliance with these

guidelines and best wishes for a successful research endeavor. Please let us know if the IRB can be of any future assistance.

Regards,

A handwritten signature in black ink, appearing to read "Gregory J. Wessman", is placed over a light blue rectangular background.

Ferris State University Institutional Review Board Office of Academic Research,
Academic Affairs

APPENDIX
B: WASHTENAW COMMUNITY COLLEGE IRB APPROVAL



Washtenaw Community College

Research Request Application

Date: October 13, 2015 TITLE OF THE RESEARCH: The Great Recession (2007-2009),

Motivation for Vocational Change: A Case Study Conducted at Washtenaw Community College, Ann Arbor, Michigan

RESEARCHER(S) NAME: Romona Williams

RESEARCHER(S) AFFILIATION: Ferris State University, Doctorate in Community College Leadership STARTING DATE: October 19, 2015 ENDING DATE: December 7, 2015

PURPOSE OF THE STUDY:

This research study will evaluate adult students' (ages 18 and over) motivation for enrolling in Nursing and Health Sciences (Physical Therapy Assistant, Radiography, or Registered Nursing) at Washtenaw Community College for the years (2010-2015) following the Great Recession {2007- 2009). This survey will be conducted online, using Survey Monkey and will involve approximately 300 students enrolled for fall 2015.

BENEFIT(S) OF THE RESEARCH TO THE COLLEGE/COMMUNITY:

Subjects who complete the survey may gain some insight into their own motivations for pursuing higher education and/or changing careers following the economic difficulties of the recent recession. The real benefit of this research is for Washtenaw Community College who will gain from understanding some of the factors that encouraged enrollment in (Physical Therapy Assistant, Radiology, or Registered Nursing). The results of this research study may be shared only in the aggregated form with department chair (Physical Therapy Assistant, Radiography, or Registered Nursing) or Dean for Health Science Division for the purpose of program improvement.

DATA COLLECTION METHOD(S)

For Data Collection Method (s): (see attachment IRB Appendices A-G)

- Appendix A: Explanation of Procedures
- Appendix B: Invitational Flyer
- Appendix C: Invitational email requesting participation
- Appendix D: Survey Informed Consent Statement and Online Survey
- Appendix E: 1st Reminder email

- Appendix F: Final Reminder email
- Appendix G: Extended Online Survey email (if necessary).

Protection of Subjects' Privacy

Contact with the subjects will only be made using a compiled email listing prepared by the appropriate IT staff at Washtenaw Community College. The researcher will not be using any of the subjects' personal information in the dissertation. The researcher is responsible for disseminating the online survey and only the appropriate IT staff will have access to the compiled email listings.

Protection of Study Data and Consent forms

All computer files containing research information will be kept on the researcher's personal computer (not shared) during the research and writing process and maintained securely for three years before being destroyed. Subjects will be responding anonymously so the researcher will not have access to any identifiable information about the respondents.

HUMAN SUBJECT APPROVAL REQUIREMENTS:

Students will be responding anonymously to the online survey, and as the researcher I will not have access to any identifiable information about the respondents. Using this procedure maintains the students' privacy and is in compliance with the family Educational Rights and Privacy Act (FER PA) 20 U.S.C. § 1232g;34 CFR (Part 99). The results of this research study will be aggregated for analysis and reporting, and individual identities will remain confidential.

No results of this study will be reported that could be used to identify individual respondents, such as the analysis of ethnicity by program of study.

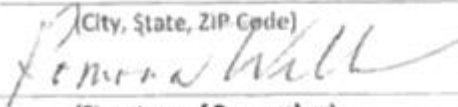
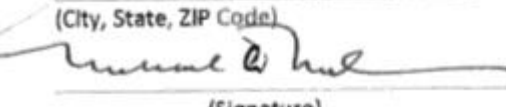
Note: prior IRB approval from the researcher's home institution is encouraged as part of the researcher's request and Washtenaw Community College (WCC) may require such prior approval at its discretion. However, WCC's review is conducted independent of approval by any other institution and WCC's decision whether to approve or reject a research request is made at its sole discretion without limitation.

See the attached approval letter from Ferris State University, Office of Academic Research, 220 Ferris Drive, PHR 308, Big Rapids, Michigan 49307, JRB@ferris.edu

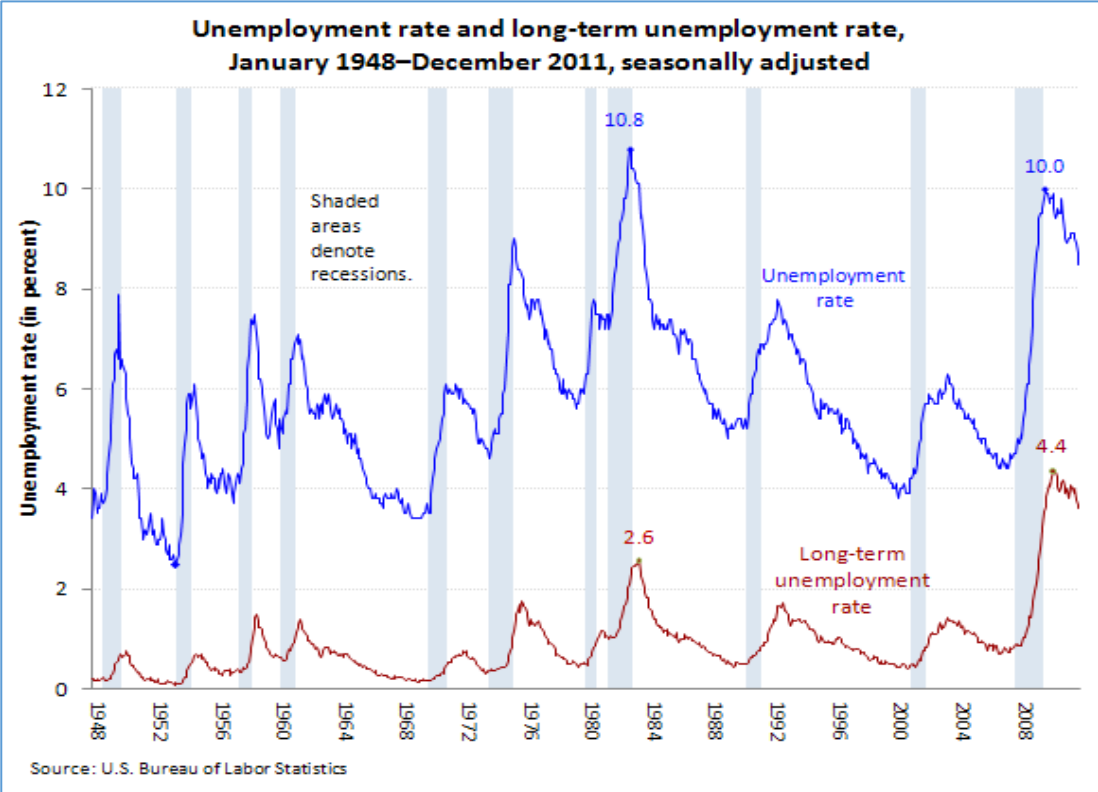
Office of the Vice President for Instruction
WCC Research Request Form.doc 1/21/2014

TERMS OF AGREEMENT

1. The researcher shall obtain the written approval of the Office of the Vice President for Instruction for the research design, all research instruments, and all pieces of correspondence to College staff or students regarding this research prior to their actual use in the study.
2. If requested, the researcher shall provide a report of findings for the data obtained from Washtenaw Community College on a timely basis in an acceptable format to the Director of Institutional Research.
3. No data, papers, or reports based on this study other than those submitted to meet academic requirements (e.g. doctoral dissertation) and submissions to refereed scholarly publications shall be released by the researchers to parties internal or external that identifies Washtenaw Community College without the prior written approval of the Vice President for Instruction.
4. All activities of the researcher shall be in accordance with all federal, state and college guidelines for handling student/staff data and protection of the rights and privacy of the staff and students.
5. The terms of this agreement may not be modified except by the Office of the Vice President for Instruction. This agreement may be terminated by either party upon thirty days written notice to the other party at the addresses listed below.

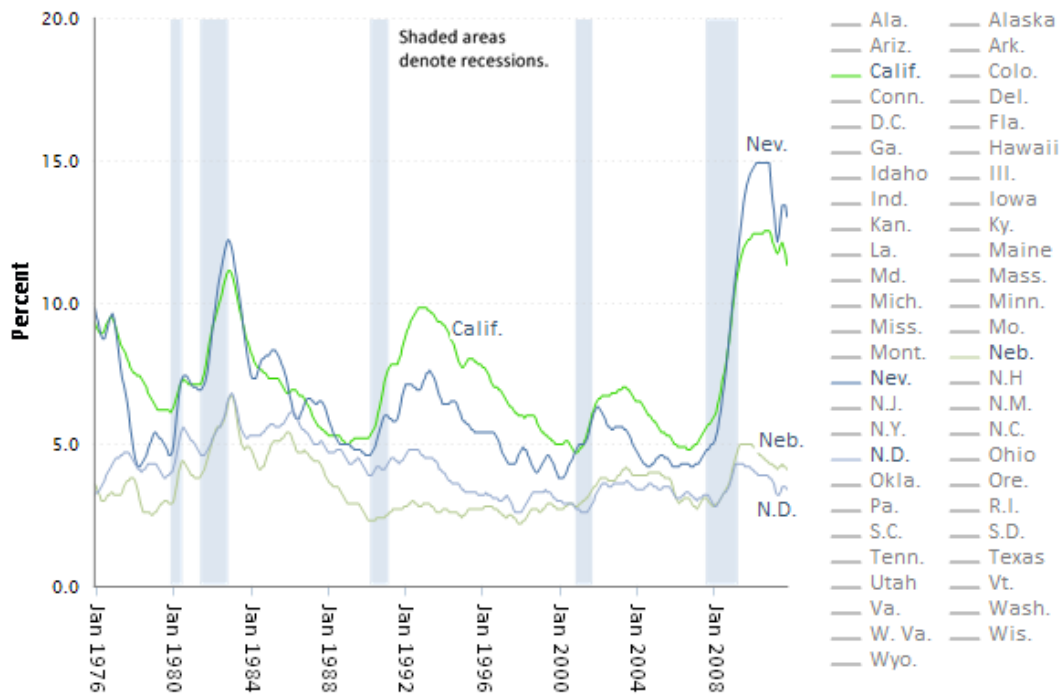
Researcher:	Office of the Vice President for Instruction
<u>Romona Williams</u>	<u>Dr Michael Nealon, Vice President</u>
(Name)	(Name)
<u>4800 E. Huron River Dr. 5C 206</u>	<u>4800 East Huron River</u>
(Address)	(Address)
<u>Ann Arbor, Michigan 48105-4800</u>	<u>Ann Arbor, Michigan 48105-4800</u>
(City, State, ZIP Code)	(City, State, ZIP Code)
	
(Signature of Researcher)	(Signature)
_____	Vice President for Instruction
<u>October 6, 2015</u>	<u>10/13/15</u>
(Date)	(Date)

APPENDIX
C: UNEMPLOYMENT RATES WITH LONG-TERM UNEMPLOYMENT RATES



APPENDIX
D: UNEMPLOYMENT RATES BY STATE

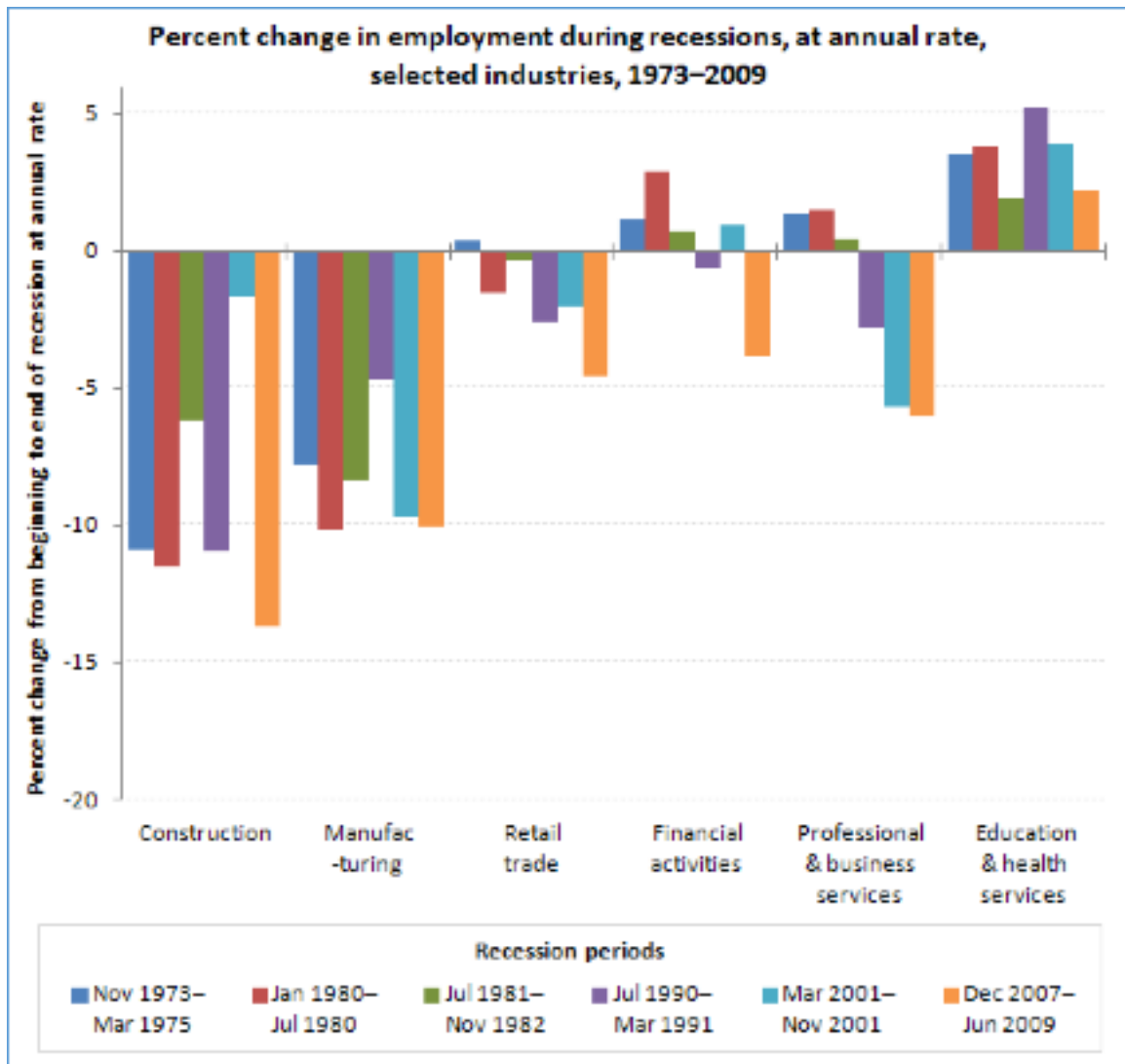
Unemployment rates by state, January 1976-November 2011, seasonally adjusted



Source: U.S. Bureau of Labor Statistics



APPENDIX
E: PERCENT CHANGE IN EMPLOYMENT DURING RECESSION



APPENDIX
F: INVITATIONAL FLYER

Hello,

My name is Romona Williams and I am currently enrolled in the Doctorate in Community College Leadership Program at Ferris State University. I am also currently employed as a Part-time Counselor here at Washtenaw Community College.

I am writing asking you to participate in my research study about your motivation for enrolling in one of the Nursing and Health Sciences Programs (Physical Therapy Assistant, Radiography, or Registered Nursing) here at Washtenaw Community College. The online survey will be available for 30 days beginning Thursday October 26, 2015, and the survey is composed of 15 questions and will take approximately 15 to 20 minutes to complete. The results of this research study may be shared only in the aggregated form with the department chair (Physical Therapy Assistant, Radiography, or Registered Nursing) or the Dean for Health Science Division for the purpose of program improvement.

Your participation in this online survey is voluntary, your responses are anonymous, and your confidentiality as a participant in this study will remain secure. In compliance with the Family Educational Rights and Privacy Act (FERPA) 20 U.S.C. § 1323g; 34 CFR (Part 99) the results of this research study will be aggregated for analysis and reporting and individuals' identities will remain confidential. No results of this study will be reported that could be used to identify individual respondent, such as the analysis of ethnicity by program of study. You may withdraw and discontinue participation at any time.

I want to thank you for agreeing to participate in this research project.

Sincerely,

Romona Williams
Doctorate Student,
Ferris State University
734-677-5102
rwilliams@wccnet.edu

[CLICK HERE TO BEGIN THE SURVEY]

APPENDIX
G: EMAIL REQUESTING PARTICIPATION IN STUDY

Hello,

My name is Romona Williams and I am currently enrolled in the Doctorate in Community College Leadership Program at Ferris State University. I am also currently employed as a Part-time Counselor here at Washtenaw Community College.

I am writing asking you to go online and complete a 15 question survey for my dissertation research concerning your motivation for enrolling in one of Washtenaw Community College's Nursing and Health Programs. Your participation in this online survey is voluntary, your responses are anonymous, and your confidentiality as a participant in this study will remain secure. In compliance with the Family Educational Rights and Privacy Act (FERPA) 20 U.S.C. § 1323g; 34 CFR (Part 99) the results of this research study will be aggregated for analysis and reporting and individuals' identities will remain confidential. No results of this study will be reported that could be used to identify individual respondents, such as the analysis of ethnicity by program of study.

If you have any further questions regarding this online survey you may contact me at: rwilliams@wccnet.edu. Or you may contact:

Ferris State University Institutional Review Board (IRB)
220 Ferris Drive, PHR 308, Big Rapids, MI 49307, Phone: 231-591-2553 Fax:
231-591-2226. IRB@ferris.edu

Washtenaw Community College

Vice President for Instruction, 4800 E. Huron River Drive, SC 243, Ann Arbor,
MI 48105-4800. Phone: 734-973-3488 Fax: 734-677-5413, mnealon@wccnet.edu

The online survey will be available for 30 days (beginning Monday October 26, 2015, and ending Saturday November 25, 2015 at 11:59 p.m.). To complete the survey will take approximately 15 to 20 minutes. The results of this research study may be shared only in the aggregated form with the department chair for (Physical Therapy Assistant, Radiography, or Registered Nursing) or the Dean for Health Science Division for the purpose of program improvement.

By clicking "**Click Here to Begin Survey**" you are providing your consent to participate in a research project conducted by Romona Williams for her doctoral research at Ferris State University.

I want to thank you for your participation in completing this online survey.
Sincerely,

Romona Williams
Doctorate Student, Ferris State University
734-677-5102, rwilliams@wccnet.edu

APPENDIX
H: SURVEY WITH INFORMED CONSENT AGREEMENT

SURVEY INFORMED CONSENT STATEMENT

(This statement will be on the front page of the online survey).
Thank you for agreeing to participate in this research study.

This survey is being conducted to gather information regarding your motivation for enrolling in one of Washtenaw Community College's Nursing and Health Sciences Programs (Physical Therapy Assistant, Radiography, or Registered Nursing). The results of this survey will be published in my dissertation with Ferris State University.

Please read the following statements before continuing:

- I understand that my participation in this survey is voluntary and I may answer as many or as few questions as I wish; and may exit the survey at any point. I understand that my participation (or lack of participation) in this survey will not affect my course grade or standing in a specific program.
- I understand the survey will take me approximately 15 to 20 minutes to complete.
- I understand that I have thirty (30) calendar days to complete this survey.
- I understand that my responses are anonymous, that my name will not be connected to any of the information provided, and that my confidentiality as a participant in this study will remain secure. In compliance with the Family Educational Rights and Privacy Act (FERPA) 20 U.S.C. § 1323g; 34 CFR (Part 99) the results of this research study will be aggregated for analysis and reporting and individual identities will remain confidential. No results of this study will be reported that could be used to identify individual respondents, such as the analysis of ethnicity by program of study.
- I understand that faculty and administrators at Washtenaw Community College will not be informed of the individual answers that I give on the survey nor will they have access to my information regarding the survey. The results of this research study may be shared only in the aggregated form with the department chair for (Physical Therapy Assistant, Radiography, or Registered Nursing) or the Dean for Health Science Division for the purpose of program improvement.
- I understand that this research study has been reviewed and approved by the Institutional Review Board (IRB) at Ferris State University and Washtenaw Community College.
- I have read and understand my rights regarding my involvement in this survey.

If you have any further questions about the survey or the research study, please contact the researcher:

Romona Williams. MA, LPC, NCC, Part-time Counselor
Counseling & Career Planning, Washtenaw Community College
4800 E. Huron River Drive, Student Center Building-206, Ann Arbor, MI 48105-4800
734- 677-5102
rwilliams@wccnet.edu

If you have any questions or concerns about your rights as a participant in this study, please contact:

Ferris State University Institutional Review Board (IRB), 220 Ferris Drive, PHR 308, Big Rapids, MI 49307, 231-591-2553, Fax: 231-591-2226, IRB@ferris.edu

Washtenaw Community College, Vice President for Instruction
4800 E. Huron River Drive, SC 243, Ann Arbor, MI 48105-4800
734-973-3488, Fax: 734-677-5413, mnealon@wccnet.edu

By clicking “Next,” you are providing your consent to participate in a research project conducted by Romona Williams, MA, LPC, NCC, Part-time Counselor, Counseling and Career Planning for her doctoral research at Ferris State University and to improve services at Washtenaw Community College.

ONLINE SURVEY (15 QUESTIONS)

Question 1: What is your Nursing and Health Sciences Program of Study at Washtenaw Community College? (Select one):

- Post-Associate Certificate
 - Computed Tomography
 - Magnetic Resonance Imaging
- Associate in Applied Science
 - Physical Therapist Assistant
 - Radiography
 - Registered Nursing

Question 2: What is your primary educational objective for attending Washtenaw Community College? Select the top 3 motivating factors and rank them (1=top; 2=middle, and 3=last).

- To earn a Post-Associate Certificate
- To earn an Associate Degree
- Transfer to a four-year institution
- For personal enrichment (self-improvement)
- To learn new skills for my current job
- Job/career change
- Other

Question 3: What year did you begin the prerequisite courses for your Nursing and Health Sciences program of study at Washtenaw Community College?

Question 4: Were you employed at some point between 2007 and 2009? (Select one) If your answer is no, skip to Question 7

- Yes
- No

Question 5: What was your employment situation prior to beginning your prerequisite courses for your Nursing and Health Science program of study at Washtenaw Community College? (250 words or less) (Please be specific):

Question 6: What type of work did you do between 2007 and 2009? (250 words or less) (Please be specific):

Question 7: What year were you admitted into your Nursing and Health Sciences program of study at Washtenaw Community College?

Question 8: What was your motivation for making the decision to enroll in your Nursing and Health Sciences program of study at Washtenaw Community College? (250 words or less) (Please be specific):

Question 9: What was your personal motivating factor for pursuing Nursing and Health Science career training at Washtenaw Community College? Select the top 3 motivating factors and rank them (1=top; 2=middle, and 3=last).

- Opportunity for long-term career growth
- Financial security
- Job/employment stability
- Attractiveness of the career
- Self-improvement
- Transfer to a four-year institution
- Job/Career change
- To learn new/improved job skills
- Other

Question 10: What is your career goal? (250 words or less) (Please be specific):

Question 11: What is your gender (Select one):

- Male
- Female

Question 12: What is your ethnicity (Select one):

- Asian
- American Indian or Alaskan Native
- Black or African American
- Native Hawaiian or Pacific Islander
- White or Caucasian
- Other (Please specify)
- No response required

Question 13: What is your age?

Question 14: What is your educational background (Select the highest level already completed):

- General Educational Development (GED)
- High School
- Technical School
- Certificate
- Associate Degree
- Bachelor's Degree
- Master's Degree
- PhD or EdD
- Other

Question 15: I'd like to make the following suggestions for improving my educational experience at Washtenaw Community College (250 words or less) (Please be specific)

APPENDIX
I: FIRST REMINDER EMAIL

Hello,

There are only **16 days left** for you to participate in the online Nursing and Health Sciences survey. The online survey will be available until Monday November 23, 2015, at 11:59 p.m. The survey is composed of 15 questions, and it takes approximately 15 to 20 minutes to complete. The results of this research study may be shared only in the aggregated form with the department chair (Physical Therapy Assistant, Radiography, or Registered Nursing) or the Dean for Health Science Division for the purpose of program improvement.

Your participation in this online survey is voluntary. You may withdraw and discontinue participation at any time. Your responses are anonymous, your name will not be connected to any of the information provided, and your confidentiality as a participant in this study will remain secure. In compliance with the Family Educational Rights and Privacy Act (FERPA) 20 U.S.C. § 1323g; 34 CFR (Part 99) the results of this research study will be aggregated for analysis and reporting and individual identities will remain confidential. No results of this study will be reported that could be used to identify individual respondents, such as the analysis of ethnicity by program of study.

I want to thank you for your participation in completing this online survey.

Sincerely,

Romona Williams
Doctorate Student,
Ferris State University
734-677-5102
rwilliams@wccnet.edu

[CLICK HERE TO BEGIN THE SURVEY]

APPENDIX
J: FINAL REMINDER EMAIL

Hello,

There are only **two days left** for you to participate in the online Nursing and Health Sciences survey. The online survey will be available until Monday November 23, 2015, at 11:59 p.m. The survey is composed of 15 questions, and will take approximately 15 to 20 minutes to complete. The results of this research study may be shared only in the aggregated form with the department chair (Physical Therapy Assistant, Radiography, or Registered Nursing) or the Dean for Health Science Division for the purpose of program improvement.

Your participation in this online survey is voluntary. You may withdraw and discontinue participation at any time. Your responses are anonymous, your name will not be connected to any of the information provided, and your confidentiality as a participant in this study will remain secure. In compliance with the Family Educational Rights and Privacy Act (FERPA) 20 U.S.C. § 1323g; 34 CFR (Part 99) the results of this research study will be aggregated for analysis and reporting and individual identities will remain confidential. No results of this study will be reported that could be used to identify individual respondents, such as the analysis of ethnicity by program of study.

I want to thank you for your participation in completing this online survey.

Sincerely,

Romona Williams
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[CLICK HERE TO BEGIN THE SURVEY]

APPENDIX
K: EXTENSION OF EMAIL SURVEY

Hello,

The online survey has been extended for **14 days** for you to participate in the online Nursing and Health Sciences survey. The online survey will be available Tuesday November 24, 2015, until Monday December 7, 2015, at 11:59 p.m. The survey is composed of 15 questions and will take approximately 15 to 20 minutes to complete. The results of this research study may be shared only in the aggregated form with the department chair (Physical Therapy Assistant, Radiography, or Registered Nursing) or the Dean for Health Science Division for the purpose of program improvement.

Your participation in this online survey is voluntary. You may withdraw and discontinue participation at any time. Your responses are anonymous, your name will not be connected to any of the information provided, and your confidentiality as a participant in this study will remain secure. In compliance with the Family Educational Rights and Privacy Act (FERPA) 20 U.S.C. § 1323g; 34 CFR (Part 99) the results of this research study will be aggregated for analysis and reporting and individual identities will remain confidential. No results of this study will be reported that could be used to identify individual respondents, such as the analysis of ethnicity by program of study.

I want to thank you for your participation in completing this online survey.

Sincerely,

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APPENDIX
L: QUALITATIVE CODING CATEGORIES

Question 4	Coding Code
What was your employment situation between 2007-2009 prior to beginning your perquisites courses for your Nursing and Health Sciences program of study at Washtenaw Community College? (250 words or less) (Please be specific)	Secondary Enrollment Homemaker Part-time Employment Multiple Employment Full-time Employment Other
Question 6	Coding Code
What type of work did you do between 2007 and 2009? (250 words or less) (Please be specific)	Administrative Hospitality Industry Medical Professional Service Industry Other
Question 8	Coding Code
What was your motivation for making the decision to enroll in our Nursing and Health Sciences program of study at Washtenaw Community College? (250 words or less) (Please be specific)	Affordable Career Change Financial Security Institutional Reputation Personal Accomplishment Other
Question 10	Coding Code
What is your career goal? (250 words or less) (Please be specific)	Bachelor Degree Registered Nursing Professional Employment Graduate School Other
Question 15	Coding Code
I'd like to make the following suggestions for improving my educational experience at Washtenaw Community College (250 words or less) (Please be specific)	Encouragement Concerns Other

APPENDIX

M: MILESTONES IN THE DEVELOPMENT OF VOCATIONAL EDUCATION

MILESTONES IN THE DEVELOPMENT OF VOCATIONAL EDUCATION

- 1862 Morrill Act** (often referred as the Land Grant)
The first federal financial legislation to support vocational education and training, including a provision for donating 30,000 acres of public land, and \$15,000 for each state to establish public colleges.
- 1874 The Kalamazoo Decision**
The Michigan Supreme Court ruled that “local school districts could construct and operate comprehensive high schools from public school funds” (Vaughn, 2006, p. 39). This decision was the catalyst for the eventual establishment of community colleges using comprehensive high school facilities.
- 1896 Lewis Institute**
A private two-year technical institute that offered technical/vocational courses. William Harper Rainey, the first President of the University of Chicago influenced its initial development.
- 1897 Bradley Polytechnic Institute** (today called Bradley University)
Originally a two-year private technical institution, its initial development was influenced by William Rainey Harper, President University of Chicago.
- 1901 Joliet Junior College**
Founded in Joliet, Illinois by William Rainey Harper, President of the University of Chicago. It is recognized as the first public community college in the United States.
- 1911 Harvard College** (Harvard University)
Began offering a Vocational Counseling degree, which was inspired by the work of Frank Parsons, identified as the Father of Occupational Counseling.
- 1914 Grand Rapids Junior College** (Grand Rapids Community College)
The eighth junior college established in the United States and the first junior college established in Michigan, was created with the support of The University of Michigan.
- 1917 Smith-Hughes National Vocational Education Act**
The first federal legislation that provided funding (\$7 million per year) in support of vocational training in vocational agriculture, home economics, and trades and industry. By 1963, funding had increased to \$55 million annually and included vocational programs in distributive education, fishery occupations, technician training, and healthcare occupations.
- 1917 North Central Association of College and Schools**
This association is responsible for establishing accreditation standards (governance in such areas as admissions, faculty qualifications, and minimum funding levels) for public and private junior colleges.
- 1921 The American Association of Junior Colleges (AAJC)**
Developed to assist presidents of junior colleges in advocacy, as a forum for community colleges issues, and mutual support (mentoring).

- 1944 Servicemen’s Readjustment Act (GI Bill of Rights)**
Federal legislation that provided financial assistance to World War II veterans who wished to pursue postsecondary education.
- 1947 Higher Education for American Democracy (Truman Commission Report)**
Advocated for the development of a network of public community colleges (as well as changing the name from junior colleges to community colleges). The community colleges would charge little or no tuition and “be comprehensive in their program offerings with an emphasis on civic responsibilities; and serve the area in which they were located” (Vaughan, 2006, p. 42).
- 1958 Associate Degree in Nursing**
With the support of the W.K. Kellogg Foundation and the Rockefeller family, community colleges, nationally, instituted associate degree programs in nursing, which allowed registered nurses to complete the nursing licensure examination.
- 1963 Higher Education Facilities Act of 1963**
Provided federal funding for expansion construction at community colleges’. Subsequent renewals of the act “provided a range of direct grants and loans to students based on need as a means of lessening the barrier of cost to higher education access” (Vaughan, 2006, p. 43).
- 1964 Economic Opportunity Act of 1964, PL88-452**
Federal legislation that established college-work-study in postsecondary education.
- 1965 Higher Education Act of 1965, PL89-329**
Signed by President Lyndon B. Johnson, the act authorized many of the postsecondary education federal student financial aid programs including the Educational Opportunity Grant Program and the Guaranteed Student Loan Program.
- 1965 Washtenaw Community College**
Established following a county wide voter referendum including 1.25 mills for financial support.
- 1966 Michigan Community College Act of 1966**
This legislation provided funding for community colleges in Michigan to begin offering vocational /occupational programs.
- 1968 Vocational Education Act of 1968**
Federal legislation that emphasized vocational programs at postsecondary institutions (community colleges).
- 1972 American Association of Community and Junior Colleges**
The American Association of Junior Colleges adopted this name change because this new name reflected the broadening terminology used for these specific institutions.

- 1972 Basic Educational Opportunity Grant (Pell Grant)**
 This grant would later change its name to Pell Grant. Today, “two million community college students now receive these need-based grants” (Vaughan, 2006, p. 45). Initially, the maximum grant awarded was \$452.
- 1982 Job Training Partnership Act of 1982**
 This was the first federal legislation that gave community colleges “for the first time a say in how funds for workforce development training are distributed locally” (Drake, 2012, p. 53). The recession of the early 1980s, when the unemployment rate exceeded 10% in some states, was the catalyst for this change. This recession was also the motivation for “an expanded role for community colleges in workforce training” (Drake, 2012, p. 53).
- 1992 American Association of Community Colleges (AACC)**
 The American Association of Community and Junior Colleges adopted this name changed in an “effort to unify its diverse membership of technical, junior, and community colleges” (Vaughan, 2006, p. 46).
- 1998 Hope Scholarship and Lifetime Learning Tax Credits**
 The Hope Scholarship is a tax credit applicable during the first two years of postsecondary educational attainment. The Lifetime Learning Tax Credit is applicable to postsecondary educational attainment beyond the first two years.
- 1998 Workforce Investment Act**
 A federal legislation that established Individual Training Accounts (or vouchers) and one stop career center systems for job training, adult education, and vocational rehabilitation. Michigan, through its twenty-five Michigan Works! Agencies, offered dislocated worker programs including training services for occupational training, skill upgrading, and retraining. In many instances, these training services were provided at a community college.
- 1998 Carl D. Perkins Vocational and Technical Education Act (Perkins III)**
 Removed previous barriers in the law, allowed states flexibility in determining how to spend their appropriations received from this legislation, established specific accountability standards to be achieved, and recognized community colleges as important postsecondary vocational educational providers.
- 2001 Community College Centennial**
 During their first century in the United States, community colleges evolved to become the largest postsecondary institutions serving close to half of all enrolled students.
- 2004 Community-Based Job Training Grant Program**
 Established by a Department of Labor initiative “designed to enhance the ability of community colleges to deliver high-quality job training programs in high-demand fields” (Vaughan, 2006, p. 48).
- 2007 College Cost Reduction and Access Act of 2007**
 Signed by President George W. Bush (2001-2009), this legislation increased the maximum Pell Grant award from \$4,310 (2007) to \$5,400 (2011-2012) and cut undergraduate student loan interest rates in half on subsidized Stafford loans by 2012.

2009 American Recovery and Reinvestment Act of 2009

This legislation included a \$500 increase in the maximum Pell Grant awarded (2009-2010) and a \$700 increase in Hope Scholarship tax credit to (\$2,500 for 2009 and 2010).

2010 Healthcare and Education Reconciliation Act

This federal legislation included \$2 billion in funding for community colleges and career training.



Community colleges are one of America's great social inventions a gateway to the future for first time students looking for an affordable college education and for mid-career students looking to get ahead in the workplace.

Barbara Mikulski
United States Senator for Maryland