Dual Credit and Degree Completion in North Dakota

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http://www.nd.gov/content.htm?parentCatID=74&id=State%20Flag (9-23-2009)

Abstract

This study will explore whether dual credit enrollment impacts the variables of time to degree completion, pursuit of subsequent degrees, college attendance, and college achievement for North Dakota students. FINDET data will be subjected to descriptive and inferential statistical techniques to determine the nature and degree of relationship. Conclusions and recommendations will be offered.

Introduction

1997: Postsecondary Enrollment Options Act—Endorsed by:
ND Department of Public Instruction (DPI), North Dakota University System (NDUS), and Sate Board of Vocational and Technical Education
-College courses
-Students and parents pay costs
-1995: defeated similar bill paying tuition from secondary per student aid

1997-2004: (Decker, 2006)
-Rising participation : except 2002-2003 (-9 students)
-Lake Region State College: over 40% of enrollment in 6 of 7 years
-Highest yearly involvement %: Schools of 150 -549
-1,068 unduplicated certificate, diploma, associate, bachelor, master, doctoral, & professional awards
-Average dual credit cohort GPA over 3.0 in NDUS
-Lower participation rates for: juniors, males, smallest, & largest schools
-Recommended: universal college preparation, quality assessment, collaboration, acceleration, and lower student financial burden

Williston State College: dual credit Spanish to high schools (NDUS, 2003)

Mayville State University: dual credit Math & English (NDUS, 2005)

2009: HB 1273: Grade 10 enrollment approved unanimously

Follow-Up Information on North Dakota Education and Training (FINDET) (DPI, NDUS, & Job Service consortium to understand "the status of graduates and program completers of system institutions" (NDUS, 2007, Sec. 11, p. 2)

Statement of the Problem

-Lack of ND time-to-degree evidence
-FINDET: help compare time to degree
-Maintain quality & economic value
-Insight into ND financial support value

Significance of the Problem

-Education: foundation of our society
-Policies must meet student needs
-Many states allow dual credit
-Rural dual credit growth (Catron, 2001b)
-Insufficient secondary resources for specialized courses
-Enhance enthusiasm and desire to pursue higher education
-Delayed degree completion
- Distance education for dual credit
- State and institutional barriers
-Oversight, coordination, & finance

Students say "taking classes with traditional college age students and adults adds a new and demanding dimension to learning" (State Board of Community and Technical Colleges, 2006, p.3)

Program objectives: (a) learning continuum through college from high school, reduce the time required for higher education degree completion, (c) reduce the necessity to duplicate coursework, (d) enhance academic preparedness, (e) increase curricular options, and (f) expand options for technical education (Fincher-Ford, 1997, p. xiii).

-Research is needed to determine if objectives are being met

Purpose of the Study

The purpose of this study is to investigate the relationship between secondary school dual credit enrollment and factors relating to postsecondary degree completion.

Examine time to degree as little numerical evidence exists regarding this aspect for dual credit students (Decker, 2006; Porter 2003)

Research Questions

Suggested in Decker 2006 (p. 119):

1.Do dual credit students reduce the time to degree and/or pursue additional degrees because of their early college experience?

2. Are patterns of continuous attendance, degree completion, and academic achievement similar for students who participated in dual credit and for those who did not?

Definition of Terms

D*ual Credit* :"credit earned at the student's high school and at an eligible postsecondary institution for a course; the commonly accepted name for postsecondary enrollment options" (Decker, 2006, p. 8).

Postsecondary Enrollment Options PSEO): "the statutory name for dual credit in North Dakota; credit is earned at a student's high school and at an eligible postsecondary institution for a course; more commonly referred to as dual credit" (Decker, 2006, p. 9).

Dual Enrollment: "a program through which high school students may enroll in college courses while still enrolled in high school" (Integrated Postsecondary Education Data System, 2007).

"Concurrent enrollment, dual credit, dual enrollment, postsecondary enrollment, and coenrollment are used interchangeably to describe a rising trend in academic programming at community colleges that supports seamless education"(Robertson, Chapman, & Gaskin, 2001, p.1)

Delimitations

Extraneous variables:
-Financial resources
-Change of Major
-Work and Family obligations

State & Institutional policies impact access

Generalizability may be limited by:
-state and institutional policies
-availability of student progress data

Organization of Study
-Chapter 1: Introduction
-Chapter 2: Literature Review
-Chapter 3: Methodology & procedures
-Chapter 4 : Data Analysis & Findings
-Chapter 5: Summary, Conclusions, & Recommendations

Literature Review

History & Background of Dual/Concurrent Enrollment: Puyear, Thor, & Mills (2001); Catron (2001b); Gemma (2004)

Arguments Supporting & Opposing Dual Credit/Dual Enrollment: Fincher-Ford (1997); Andrews (2000); Duffy (2002); Porter (2003); Dougan (2005); U.S. Department of Education (2005)

High School-College Transition: Fincher-Ford (1997); Renzulli & Park (2000); Gladieuz & Swail (2000); England (2001); Pierce (2001); National Commission on the Senior Year (2001a, 2001b); Peterson, Anjewierden, & Corser (2001); Sizer (2002); American Diploma Project (2004); Achieve, Inc., (2004, 2005, 2006); Honawar (2005); Kim (2006); Green (2006); Adelman (2006); Hoover (2006); Western Interstate Commission for Higher Education (2006)

Transition Programs: Fincher-Ford (1997); Haycock, Barth, Mitchell, & Wilkins, (1999);Porter (2003); Born (2006); St. Arnauld (2006)

Student Development: Oltersdorf (n.a.); Schuh (1989); Chickering & Reisser (1993); Hamrick, Evans, & Schuh (2002); Chickering (2006)

Student Access to Dual Enrollment: Education Commission of the States (2000); Girardi (2001); Duffy (2002); U. S. Department of Education (2004); Western Interstate Commission for Higher Education (2006); Decker (2006); Kirst & Venezia (2006); Adelman (2006); Akst (2007)

Opportunities for Those "other than traditionally college bound": Hugo (2001); Bailey & Karp (2003); Bragg & Barnett (2006a, 2006b); Hunt & Carroll (2006); Bueschel & Venezia (2006); Bragg, Kim, & Barnett (2006)

State Dual Credit Policies: Andrews (2000, 2001, 2004); Andrews & Barnett (2001); Boswell (2001); Puyear, Thor, & Mills (2001); Jordan (2001); Wolcott (2001); Andrews & Davis (2003); Porter (2003); U. S. Department of Education (2005); Kim, Kirby, & Bragg (2006); State Board of Community and Technical Colleges (2006)

Institutional Dual Credit Policies: Chapman (2001); Wolcott (2001); Helfgot (2001); Peterson, Anjewierden, and Corser (2001); VanWagoner, Bowman, and Spraggs (2005); Kleiner and Lewis (2005); Coplin (2006)

Discipline-Based Dual Credit Programs: Catron (2001a)

Student Reflection Upon Dual Credit Experiences: Burns & Lewis (2000); Marshall & Andrews (2002)

Student Recruitment and Retention Issues: Porter (2003); Hoover (2006); Marcy (2006)

Dual credit in ND: Brauhn (2002); North Dakota University System (2003, 2005); Decker (2006); Misner (2007)

Dual Credit & College Success: Nitzke (2002); Porter (2003); Swanson (2003); Washington Higher Education Coordinating Board (2005); National Center for Education Statistics (2005); Western Interstate Commission for Higher Education (2006); State Board of Community and Technical Colleges (2006); Decker (2006)

Student Tracking Systems: Decker (2006); North Dakota University System (2007); Misner (2007)

Methodology and Procedures

Research Design
This study will evaluate the impact of dual credit enrollment upon time to degree completion, pursuit of subsequent degrees, attendance, and achievement versus students who do not enroll in dual credit courses. Upon approval of the Doctoral Committee, the research design will be described in a detailed submission, including correspondence with the Chancellor of the NDUS and Superintendent of DPI, to the NDSU Institutional Review Board (IRB). Copies of correspondence will be included in an appendix .

-Independent variable: dual credit enrollment
-Dependent variables: time to degree, additional degree pursuit, attendance, & achievement

Participants
This study will gather information upon students who graduated from public secondary institutions in ND in May 2001 who subsequently enrolled in public postsecondary institutions in ND

Procedures

Data Mining, Knowledge Discovery, & Knowledge Management: O'Dell, Grayson, and Essaides (1998); Hand, Mannila, & Smyth (2001); Delmater & Hancock (2001); Roiger & Gaetz (2003); Dunham (2003); Han & Kamber (2006); Romero & Ventura (2007)

Data Mining, Knowledge Discovery, & Knowledge Management in Higher Education: Santo (2005); Herzog (2006); Bailey (2006); Eykamp (2006); Luan & Zhao (2006); Romero & Ventura (2007); Pechenizkiy, Puuronen, & Tsymbal (2008)

Upon doctoral committee approval, the research design will be described in a detailed submission to the NDSU Institutional Review Board (IRB), including correspondence with the Chancellor of the North Dakota University System and Superintendent of Public Instruction requesting information to the information submitted by their agencies to the FINDET database. Copies of correspondence will be included in an appendix .

Data Collection
-FINDET Director will aggregate and match DPI & NDUS data, removing personally identifiable student information
-With unduplicated data, students who receive multiple degrees will be counted once
-DPI and NDUS data after 2001 are believed to match

Reliability and Validity
-Sources of Error: carelessness, instrumentation failure, inadequate definition of measure
-Precise (reliable) & accurate (valid) measurements help limit bias & measurement variation
-Reliability tests: alternative measures, split-half, & consistency with similar instruments
-Improperly honed measurements can lead to decisions that differ from objectives and goals.
-Invalid measurements can be misleading
-Face validity: DPI & NDUS information matched by FINDET administrator prior to being provided to researcher

Assumptions:
1. Institutions submitted accurate and reliable information to DPI
2. Institutions submitted to the NDUS was accurate and complete
3. DPI dual credit student information is consistent with NDUS postsecondary enrollment information
4. DPI personnel completely and accurately entered the data received from institutions
5. NDUS personnel completely and accurately entered the data received from institutions
6. The FINDET Director completely and accurately represented the DPI and NDUS data sets when compiling and aggregating

Limitations:
-Results depend upon valid and reliable information and each of the above assumptions.
-Findings are limited to ND students enrolling in public postsecondary institutions in Fall 2001
-Generalizability: limited by differing state and institutional dual credit program structure and other criteria.
-Researcher bias will be controlled through the data collection process discussed above.
-Researcher will analyze the data and assess impact on time to degree and rate of pursuit of advanced degrees

Data Analysis

-Appropriate Descriptive and inferential data analysis techniques
-Software will include Microsoft Excel and PAWS (formerly SPSS) for analysis
-Experts will provide feedback upon results
-Tables, charts, or graphs will be utilized to demonstrate the results of this study.

Summary, Conclusions, & Recommendations

-Summary of the findings
-Conclusions
-Recommendations for future study will be made based upon the conclusions.

References

-Handout available