Core Concepts in Higher Education Series Editors: Edward P. St. John and Marybeth Gasman

The History of U.S. Higher Education: Methods for Understanding the Past Marybeth Gasman, editor

Understanding Community Colleges John S. Levin and Susan T. Kater, editors

Forthcoming

Reframing Strategies for Preparation, Access, and Success Edward P. St. John, Natan Daun-Barnett, and Karen Moronski-Chapman

Organizational Theory in Higher Education Kathleen Manning

Understanding Community Colleges

Edited by

John S. Levin and Susan T. Kater



First published 2013 by Routledge 711 Third Avenue, New York, NY 10017

Simultaneously published in the UK by Routledge 2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2013 Taylor & Francis

The right of the editors to be identified as the authors of the editorial material, and of the authors of their individual chapters, has been asserted in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Library of Congress Cataloging in Publication Data Understanding community colleges / [edited] by John S. Levin & Susan T. Kater. p. cm. — (Core concepts in higher education) Includes bibliographical references and index. Community colleges—United States. 2. Community college students— United States—Case studies. I. Levin, John S. II. Kater, Susan.

LB2328.15.U6U64 2012 378.1'5430973—dc23 2011047694

ISBN: 978-0-415-88126-5 (hbk) ISBN: 978-0-415-88127-2 (pbk) ISBN: 978-0-203-11893-1 (ebk)

Typeset in Minion by EvS Communication Networx, Inc.



Printed and bound in the United States of America by Edwards Brothers, Inc.

CONTENTS

List of Illustrations Series Editor Introduction Preface Acknowledgments		vii ix xi xix
Section I	The Core: Community Colleges and Their Students	1
Chapter 1	Community College Mission in Historical Perspective	3
Chapter 2	Student Diversity in Community Colleges: Examining Trends and Understanding the Challenges LINDSEY E. MALCOM	19
Chapter 3	Student Development and Consumerism: Student Services on Campus JOAN B. HIRT AND TARA E. FRANK	37
Chapter 4	International Students in U.S. Community Colleges: Status, Opportunities, and Future LINDA SERRA HAGEDORN AND YI (LEAF) ZHANG	53
Chapter 5	Adult Student Development: The Agentic Approach and its Relationship to the Community College Context VIRGINIA MONTERO-HERNANDEZ AND CHRISTINE CERVEN	69
Chapter 6	Teaching Academically Underprepared Students in Community Colleges DOLORES PERIN	87

v

12

CAREER AND TECHNICAL EDUCATION

Old Debates, Persistent Challenges in Community Colleges

DEBRA D. BRAGG

INTRODUCTION

Career and technical education is rooted in federal legislation first passed in 1917 to fund secondary vocational education. In spite of staunch support from early junior college advocates, the federal government did not fund career and technical education (then labeled vocational education) beyond high school until the 1960s, and even then appropriations were modest. However, vocational education has expanded and diversified considerably since the mid-20th century, leading scholars to question whether the access agenda of community colleges is threatened by an increasing preoccupation with economic development (Levin, 2001). Critics have claimed the vocational mission of community colleges overshadows individual benefits (Brint & Karabel, 1989), but politicians, business representatives, and college leaders continue to seek an intensified connection to the labor market (Harmon & MacAllum, 2003). Situated in the middle of this long-standing debate is the student who seeks a college education for many reasons, one of which is to secure a good job.

Since 1963, federal legislation has authorized funding for postsecondary vocational education to increase enrollments through strengthened connections to business and industry, with community and technical colleges at the heart of this workforce development strategy (Bragg, 2001a). Integral to implementation of vocational education at the postsecondary level were articulation agreements with high schools to create academic pathways that enable traditional-age students to transition to college. Skill-specific training programs were offered to assist unemployed and incumbent adult workers to obtain credentials and re-enter or advance in the labor market. These diverse trajectories represent the outer boundaries for what has become a broad set of curricular offerings that represent contemporary career and technical education (CTE).

This chapter begins with an analysis of federal support for secondary vocational education that began in 1917. It continues by examining vocational education at the mid-20th century when dramatic social and economic change occurred nationwide,

prompting federal funding for vocational education by community, junior, and technical colleges. At the end of the 20th century and beginning of the new millennium postsecondary vocational education evolved into an even more complex, multidimensional enterprise, and the terminology shifted from vocational education to CTE, which was codified in the Carl D. Perkins Career and Technical Education Improvement Act in 2006. Increasingly, CTE has been positioned as an instrumental tool to prepare workers for the global economy, extending the long-standing debate about whether vocational education should be integrated into the general curriculum or kept distinct to facilitate economic development.

FROM VOCATIONAL EDUCATION TO CAREER AND TECHNICAL EDUCATION

Since the early 20th century, the nation has debated the fundamental role of public education. At one extreme, the core purpose of public education is to provide liberal education to develop the whole person and, at the other extreme, the key goal is to develop specific skills for work. This intention to distinguish education for employment from education for life's fuller endeavors represents one of the most important yet contentious debates over public education in the U.S. (see, for example, Labaree, 2010). Over much of the 20th century, this debate played out in public high schools where students prepared to attend college or enter the workplace.

The comprehensive high school took shape at about the turn of the 20th century when educators, politicians, and business leaders actively debated how best to educate the nation's growing and increasingly diverse student population. The nation was seeing an increasing number of young people leave the farms for urban areas, and immigration was bringing non-native speakers into the population (Wirth, 1992). To address these trends, high schools were thought most efficient if they replicated the social and economic order of the day, helping students find a place in the school curriculum that would prepare them to matriculate to college or prepare them for employment. This focus on efficiency contributed to the replication of structural inequalities that separated students by income, ethnicity and race, gender, and other defining characteristics. Hence, high school education for the rest, especially the working class, concentrated on preparation for employment. Males were the primary recipients of high school technical instruction, with domestic life as the focus for the education of females (Wirth, 1992).

The Smith Hughes Act

Vocational education began to be offered as part of public schooling when the federal Smith Hughes Act was passed in 1917, through vocational agriculture and manual training programs for males and domestic science (or home economics) for females. Vocational curriculum was especially useful to educate students who were likely to drop out (Lazerson & Grubb, 1974), and was therefore heralded as a democratizing mission of public education, according to the U.S. government (Benavot, 1983; Lazerson & Grubb, 1974). Simultaneously, employers praised the benefits that vocational education provided by offering specific skill training to students who would otherwise fail to find work that would sustain a living wage. Similar to policy-makers, employers foresaw benefits of vocational education for both the economy and students by motivating students to stay in school and enter employment (Wirth, 1992).

Championing vocational education as a democratizing form of public education, Prosser (1913) observed, "The American school will truly become democratic when we learn to train all kinds of men [sic], in all kinds of ways, for all kinds of things" (p. 406). Through vocational education, students were expected to experience a more practical form of education that was presumed to be directly applicable to their future as laborers and line workers in factories that were needed to grow the U.S. industrial economy. Vocational education would heighten students' abilities to secure skilled jobs (rather than fill unskilled jobs that predominated in the labor market at that time). For the working class, education for citizenship and for life was presumed to be fulfilled if they were prepared for work (Wonacott, 2003).

Separate and Unequal

The Smith Hughes Act established vocational education as a separate system of education administered by state boards to perpetuate distinct curricula. Because the administration of federal funds required an independent administrative system, state boards that propagated separate curricula (what eventually became known as tracks) were also perpetuated through separate teacher preparation programs and reinforced by professional and student organizations that complemented practical classroom instruction (Rojewski, 2002). However, critics of the separate system for vocational education, such as John Dewey, claimed that vocational education missed opportunities to connect pedagogical approaches to broader aspects of education, work, and the community that were necessary to move marginalized populations into the mainstream of society (Wirth, 1992). Dewey and others argued that a separate system of vocational education weakened the entire educational system, and these perspectives laid the groundwork for debates about the goals of public education that have lasted for decades (Wirth, 1992).

In an historical account prepared for the U.S. Department of Education, Hayward and Benson (1993) described the "isolation of vocational education from other parts of the comprehensive high school curriculum" as "a division between practical and theoretical instruction" (p. 3) that would have detrimental effects on U.S. public schools. Educating students to perform job-specific skills to the exclusion of academic education limited students' options to transition to college and advance into professional employment. Isolation was not only evident between vocational and academic education but within vocational education because fields of study associated with agriculture, manual training (eventually industrial arts and then technology education), home economics, business, and other areas were funded and delivered separately (Rojewski, 2002). Even within vocational education, different fields of study were separate and unequal, depending on their alignment with larger social and economic strata. This separation of curriculum between vocational and academic education, as well as further differentiation within vocational education, prevailed into the mid-20th century when federal legislation expanded to the postsecondary education level.

At the time the Smith Hughes Act was passed, Charles Prosser and David Snedden, prominent spokespersons, advocated for "an *essentialist* approach toward vocational education—firmly grounded in meeting the needs of business and industry" (Rojewski, 2002, p. 7, emphasis in original). Citing historical accounts authored by Sarkees-Wircenski and Scott (1995), Rojewski observed that essentialism emphasizes instruction

in basic academics (reading, writing, and arithmetic), respect for the prevailing power structure, and appreciation of middle-class values. As noted previously, this philosophy was countered by John Dewey, who warned that "too specific a mode of efficiency defeats its own purpose," and he called for education that would be neither too labor-market specific nor too distinct from the rest of schooling so that there was not a diminution of its benefits to the individual or to the community (Dewey, 1916, p. 119). The perspectives of Prosser and Snedden, in contrast to Dewey, which continued to be associated with vocational education to the present, contribute to an uneven playing field for historically marginalized populations who seek opportunities to benefit from public education directed at college and career preparation.

EXTENSION OF VOCATIONAL EDUCATION TO THE POSTSECONDARY LEVEL

Expansion of vocational education to the postsecondary level occurred in the 1960s, launching vocational programs that would continue to evolve throughout the rest of the 20th century. However, the increase in vocational education programs was not without controversy due to the continued delivery of programming that was accessed by and accessible to some but not all student groups. Efforts to diversify the student population that participated in vocational education were acknowledged by new federal legislation in the 1970s, but limitations of these laws contributed to inequities for ethnic and racial student groups.

The Vocational Education Act of 1963

Until the 1960s, federal monies for vocational education were devoted entirely to secondary education. Numerous leaders of junior colleges advanced the idea of terminal vocational education for several decades, including national commissions advocating for applied associate degree programs in the health sciences, manufacturing, and other fields. However, none of these efforts produced support for dedicated federal funding for vocational education beyond high school until the mid-1960s when the nation launched a comprehensive higher education agenda. Intellectual leaders of the junior college were adamant supporters of an alternative curriculum to transfer education for workingclass students, and they articulated widely the importance of a strong vocational function in junior colleges (Meier, 2008). Walter Crosby Eells, Leonard V. Koos, and other early scholars of the community college considered vocational education to be a proper alternative to transfer for students who were unlikely to be successful pursuing baccalaureate degrees. They advocated for a diversified curriculum that paralleled the stratified labor market, believing that vocational education was essential to the long-term survival of junior colleges. State higher education systems lent their support, creating separate institutional types to support the administration of two-year college and fouryear university education to address a range of student abilities (Brint & Karabel, 1989; Dougherty, 2004). This argument, including the rhetoric of democratizing education, is hauntingly similar to the perspectives of early vocational education advocates who believed a vocational curriculum that replicated the social and economic hierarchy was necessary to sustain high schools.

With the passage of the Vocational Education Act of 1963, the door opened to federal funding for vocational education in junior, community, and technical colleges (Calhoun

& Finch, 1976), resulting in a more visible and integral role for vocational education at the postsecondary level. Federal policy-makers recognized that occupations required higher levels of technical instruction, using the label of "semi-professional" to describe the preferred tier of employment for junior college graduates. Whereas federal funds had been non-existent for vocational education beyond high school prior to the 1960s, the 1963 legislation recommended 20% of federal funding be awarded to programs enrolling students between 20 and 25 years old, 15% to programs enrolling students between 25 and 65, and 5% to programs enrolling students of any age, and the remaining funds appropriated to secondary education (Calhoun & Finch, 1976). To this day, the U.S. Department of Education, Office of Vocational and Adult Education does not prescribe the precise allocation to the secondary and postsecondary level (Bragg, 2001a). Although there are some exceptions, it is common for states to allocate a higher proportion of funds to the secondary than postsecondary level, in spite of strong rationale for most occupational instruction to be delivered by community colleges due to workforce requirements necessary in the modern labor market (Carnevale, Smith, & Strohl, 2010). Looking at funding from all levels of government, Silverberg, Warner, Fong, and Goodwin (2004) estimated federal Perkins funds made up approximately 2% of local community college budgets that support vocational education.

Expanding Access

The 1963 Vocational Education Act also signaled the importance of preparing collegeage citizens and adults for employment. Technological advancements prompted by the Kennedy presidency and social commitments supported by the Johnson administration encouraged community colleges to develop vocational programs to prepare students for technical and semi-professional occupations (Rojewski, 2002). Also important during this period, the civil rights movement raised the nation's awareness of discrimination in the workplace, in education, and in public life by expanding voting rights, abolishing national-origin quotas in immigration laws, and banning discrimination in housing. These larger social forces provided an important context for expanding vocational education at the same time that many community colleges were first opening their doors (Cohen & Brawer, 2008). Although there is no evidence to point to the expansion of vocational education as a direct response to the civil rights movement, there is no doubt that the nation's efforts to rectify historical discrimination laid the foundation for scrutiny of all forms of education, including vocational education. The timing was right to encourage community colleges to adopt a comprehensive and inclusive mission, as foreshadowed by the Truman Commission immediately after World War II.

It is not surprising, then, that community colleges established in the late 1960s and 1970s articulated vocational education as integral to their core mission. In an important book defining the emergence of vocational education as a legitimate component of compulsory education, Grubb and Lazerson (1974, p. 1) introduced the notion of "vocationalism" that had swept public education in the 20th century (and before). This book showed how the vocational purpose of schooling had expanded significantly, noting that vocational education had not strayed far from the vision of federal policy-makers in the early 1900s. Over 30 years later, Grubb and Lazerson (2005) projected this same observation onto community colleges and eventually to all of higher education, arguing that vocationalism is at the heart of the entire educational enterprise in the U.S.

The notion of extending vocational education beyond high school to include two years of college, culminating in an associate's degree, was solidified in policy in the 1960s, but in fact not executed fully until the 1970s (Evans & Herr, 1978). Articulation processes were important to the growth of postsecondary vocational education because community colleges needed a way to help students who had participated in high school-level vocational classes to matriculate to college to participate in more advanced vocational training. An action discouraged for vocational education students at the beginning of the early 20th century, transition from secondary to postsecondary education was encouraged by the late 1960s and thereafter. Articulation agreements between local high schools and community colleges began to be forged in the late 1960s in some states, with support from state administrative agencies that authorized vocational course sequences thought appropriate to articulate with advanced vocational training (Bragg, Layton, & Hammons, 1994). Articulated curriculum offered the potential for students to access college, but it also had the disadvantage of extending tracking, with many tracks ending with a two-year applied and terminal degree, primarily the associate of applied science (AAS). These developments created the potential to extend the essentialist approach (Rojewski, 2002) begun in K-12 curriculum to the postsecondary level.

Who's In and Who's Out?

An important factor in the evolution of vocational education was the targeting of programs to special populations, which began to take place in the late 1960s and 1970s. Associated with the enrollment of students thought unable to attend or disinterested in attending college, the Vocational Education Act of 1963 recognized students with special needs as learner populations that could benefit from vocational education (Rojewski, 2002). However, federal legislation passed in 1968 and 1976 established categorical funding for students with disabilities and students identified as economically disadvantaged, along with students with limited English proficiency, teen parents, displaced homemakers, and students in programs considered non-traditional for their gender. The Education of All Handicapped Children Act of 1975 reinforced the importance of vocational education serving special population students, and it aligned vocational education with special education in ways supportive of the enrollment of students with intellectual, emotional, and physical disabilities (Meers, 1987; Sarkees-Wircenski & Scott, 1995).

Racial and ethnic minorities were not identified as a special population group for vocational education. According to LaFollette (2011), the omission of persons of color from the federal vocational education legislation was no mistake. The late Senator Carl Perkins, long-time congressional leader of the federal vocational education agenda, believed strongly that vocational education was necessary to address the poverty he saw in his home state of Kentucky, and he advanced a federal agenda for the nation that was favorable to his constituency. Why other Congressional leaders did not push for equitable access to federally funded vocational education is uncertain. The lack of explicit identification of ethnic and racial minority students as beneficiaries of vocational education and ethnic minority students (Oakes & Saunders, 2008) and address historic inequities made evident in the passage of the Civil Rights Act of 1964.

Lauded for democratizing K-12 schools by helping at-risk students graduate from high school and find employment, advocates for aligning vocational education with

special education did not anticipate the extent to which this decision would stigmatize vocational programs and their students (Rojewski, 2002). Although well intended, linking vocational education to special education deepened schisms between the curricular tracks: college prep, general education, and vocational education. Although not completely duplicative, students enrolling in vocational programs were many of the same students who were marginalized from mainstream curriculum, especially the college-bound track (Lucas, 1999; Oakes, 1985). Tracking reinforced that college prep was for the most academically and economically privileged; general education was for the middle-ability, middle-income student; and vocational education was for those having inadequate academic preparation, low income status, or other characteristics making them unqualified for or unworthy of a college education. Inequitable curriculum structure created by tracking diverse groups constrained students' abilities to access the academic curriculum and prepare for college (Oakes, 1985). Later, in a national study of vocational education mandated by Congress, Boesel and McFarland (1994), it was suggested that, due to years of implementation in secondary schools, vocational education had become "a backwater, a dumping ground" (p. 11) for economically disadvantaged and disabled students. This research reinforced claims made by Oakes (1985) and others about the ways vocational education contributed to inequitable outcomes. Although this critique was directed at K-12 education, the push for articulation of secondary vocational education with postsecondary curriculum created the potential to replicate patterns of inequitable outcomes at the collegiate level unless drastic changes were made.

THE NEW VOCATIONALISM

Recognizing the inherent problems in tracking that limits students' educational options, a dialogue about a new form of vocationalism emerged among educators and scholars in the latter part of the 20th century. Reflecting on changes to federal legislation associated with reauthorization of the federal vocational education law in 1990, Benson (1997) provided an argument for "new vocationalism" (p. 201) that encouraged the movement of vocational education from the margins to the mainstream of the U.S. curriculum. According to Benson, new vocationalism had three distinct components that distinguished it from vocational education of the past. First, it integrated academic and vocational education by blending theory with practical skills. Second, it aligned secondary with postsecondary education to provide opportunities for more high school students to matriculate to college. Third, it established a "closer relationship between education and work, such that these two main components of human activity should each enhance and elevate the other" (Benson, 1997, p. 201). Various policies governing vocational education from the early 1990s to the present have advanced these tenets of reform, echoing ideas advanced by early 20th-century philosophers such as John Dewey (1916). However, in spite of the promise to revisit the progressive education philosophy of education and the excitement that these reform tenets created (Wirth, 1992), implementation of vocational education reforms has been uneven across the nation, creating a mixed picture of program quality and student outcomes (Lewis, 2008).

Vocational Education Reform

Numerous models emerged in the 1990s that attempted to strengthen the relationship between academic education and vocational education, including tech prep, career academies, youth apprenticeships (Lewis, 2008), and other school reforms of which High Schools that Work (HSTW) is most widely recognized and researched (see, for example, Kaufman, Bradby, & Teitelbaum, 2000). These reforms emphasized better integration between academic education and vocational education. Concerns about tracking were on the minds of educators at all levels by this time; thus reformers associated with new vocationalism were cognizant of the need to increase academic education participation as part of an integrated academic and CTE program of study (Lynch, 2000). Technical preparation (or tech prep) conceived by Parnell (1985) is an example of a model that attempted to execute the tenets of reform associated with new vocationalism as proposed by Benson (1997).

In The Neglected Majority, Parnell (1985) criticized the compulsory education system for failing to recognize that individual differences should be attributed to students' unique learning styles and not just to their intellectual abilities. He remarked that "despite our rhetoric about the uniqueness of each individual, many people still advocate that 'academic' means advanced and is for the 'smart' students and that career education is for the 'dumb' students" (p. 55). Building on this image of students locked into distinct tracks that stigmatize them according to their innate intelligence, Parnell advanced the notion of careers education that is both "information-rich and experience-rich" (1985, p. 69), and he advocated for a plurality of pedagogical strategies leading to career opportunities that students could pursue over their lifetimes. The specific proposal that emerged from Parnell's vision was for technical preparation (tech prep) designed to provide the programmatic structure and substance to transition students in the middle two quartiles of the high school student body to a community college where they would study the "mid-range of occupations requiring some beyond-highschool education and training but not necessarily a baccalaureate degree" (1985, p. 140). Enthusiastically adopted by federal policy-makers, the Carl D. Perkins vocational education legislation of 1990 and 1998 provided states and local entities with the authority and funding to implement tech prep as part of the federal Tech Prep Education Act. Accordingly, these programs were expected to offer an integrated academic and CTE curriculum that started by at least the junior year of high school and continued through two years of postsecondary education to the associate degree, a two-year certification or a formal apprenticeship. Articulation agreements providing high school students with college credit (referred to as articulated credit and later dual credit) and applied pedagogical instruction formed the backbone of the tech prep model (Hull, 2005).

In tech prep and other models that emerged as part of new vocationalism, CTE lessened its focus on specific occupations associated with historical federal policy and paid more attention to career development and preparation at the high school level, recognizing that job-specific training may yield immediate pay-offs but limit long-term economic benefits to students (Lewis & Cheng, 2006). Thus, while agriculture, consumer and family studies (formerly home economics), business and marketing, and industrial/technology education continued to exist, CTE began to be conceptualized as part of a progression of educational experiences for students, beginning at the middle school or high school level, extending through the postsecondary level, and into the labor market (Meeder, 2008). Collaborative efforts between the U.S. Department of Education and the U.S. Department of Labor to map the nation's labor force resulted in the States Career Cluster Framework in 1999, which encouraged rethinking of the way students prepare for employment, recognizing that more than one career trajec-

tory had become commonplace in the labor market (Ruffing, n.d.). This framework had a dual purpose: It intended to create more coherency in education for employment for learners at all levels of the lifespan, youth to adults; and it intended to show students how they could progress through the education and training systems, moving in and out of school and college enrollment as they advanced in a career or moved from one career to another.

The States Career Cluster Framework identified 16 clusters of occupations and broad industries, with each cluster further delineated into career pathways and programs of study. This framework has been applied broadly to the nation's entire labor market, and it has guided the development of curriculum and instruction intended to prepare students for the lifelong learning associated with college and career preparation. Curriculum developed to accompany this framework necessitated an integrated approach to academic and CTE, as envisioned by Benson (1997), particularly to nullify the separation of CTE from academic education. The ultimate goal was to provide students with an interdisciplinary approach to education that connects and reinforces theory and practice in ways that enable students to pursue their academic goals and simultaneously prepare for employment. Although the States Career Cluster Framework has not paid substantial attention to citizenship education, this framework has attempted to engage a broad constituency in conversations about the fundamental purpose of schooling. Scholars such as Oakes and Saunders (2008) have pointed out that civic education is a natural ally to CTE in that students need "multiple pathways" that include civic education to prepare them to better serve their communities, the nation, and global interests (p. 6).

Reforms associated with new vocationalism have expected secondary and postsecondary educators to work together collaboratively to develop and align curriculum that prepares students to pursue their college and career goals and aspirations (Taylor et al., 2009). This approach has asked stakeholders to rethink educational goals that have impeded access to and success in college and career preparation (Bragg & Bennett, 2011). Curriculum that helps students pursue a wide range of goals and outcomes, including ensuring that students have access to associate and baccalaureate degrees, represents a pathway unthinkable for vocational education programs in earlier times. Programs of study that extend to the baccalaureate represent an expansion of new vocationalism to the rest of higher education (Grubb & Lazerson, 2005), and a vivid commitment to rectifying social inequities associated with tracking in K-12 (Bragg & Ruud, 2011).

Mixed Results

Research on the new vocationalism is limited, but a few empirical studies address the question of whether CTE programs are working. For example, results of a study of eight tech prep consortia in four states that attempted to implement comprehensive reforms consistent with new vocationalism showed that academic course requirements mattered to students' choices of high school courses (academic and CTE). Students who were encouraged to take more academic courses as part of their tech prep programs did so, and this action was positively associated with matriculation to college (Bragg et al., 2003). When student participation in core academic courses was linked to rigorous course requirements, the students took a greater number of academic courses and they advanced to higher levels in the academic curriculum, which offered them better preparation for college. In a secondary analysis of this same dataset, Bragg, Zamani, Yoo, Jung-sup, and Hill (2001) found that tech prep participants took at least as many

advanced academic courses as the comparison group of students who graduated with similar academic performance, and in some cases more. These tech prep students were less likely to need remediation when they entered the community college relative to the comparison group.

Albeit promising, Bragg et al.'s (2001) work also showed results on student outcomes that raised questions about whether tech prep had ameliorated inequities associated with historical tracking policies in high schools. Bragg et al. showed that students' preparation for college differed by ethnic and racial group membership, favoring White students. Although not evident in all eight sites, in the two sites offering some of the most intensive academic course requirements, there was a significant difference between White and African American students on college readiness, controlling for other student characteristics. In both sites, African American students were more likely to require remediation at the community college than White students. Based on their increased likelihood of having to enter college taking remedial courses, African American students were also disadvantaged on other transition outcomes such as progress to degree and college completion relative to White students. This pattern of secondary education that is linked to differential preparation for college by ethnic and racial group and income status represents a troubling pattern of inequity that continues to persist (Schmid, 2010).

In a study of CTE transition programs similar to tech prep, Lekes et al. (2007) studied students in two regions of the country. Findings revealed that CTE transition students in both sites scored significantly higher than their matched non-CTE transition student counterparts on the Reading for Information subtest items of ACT WorkKeys. A significant difference was noted between the two groups on dual credit course-taking, with CTE transition students taking more dual credit than non-CTE students. Such positive findings would be encouraging of new vocationalism were it not for the troubling pattern of differential benefits that emerged, similar to the Bragg et al. (2007) study. Lewis (2008) concluded that various new vocationalism reforms had revealed mixed results due to the questions they raised about equitable outcomes for minority students. His synthesis revealed modest evidence of the advantage of tech prep, career academies, and youth apprenticeships over traditional education, speculating that new vocationalism reforms had not been implemented thoroughly enough to test their effects. He suggested, "POS [Programs of Study] are unlikely to produce marked improvements in achievement and transition to postsecondary education" (p. 180) unless they are implemented sufficiently to overcome patterns associated with the past. He concluded that incremental change, admittedly less complex to implement, had resulted in partial reform and, as a consequence, new vocationalism had not achieved the major effects it had hoped to realize.

THE COMMUNITY COLLEGE ROLE

Much of the conversation about new vocationalism has been directed at the K-12 level, particularly at high schools, except to the extent community colleges have been seen as partners to receive CTE students who are advancing to the postsecondary level (Grubb & Lazerson, 2005). For some community colleges, tech prep, career pathways, and programs of study represented useful avenues to student recruitment to maintain or grow postsecondary CTE program enrollments. However, since many students who enroll in

postsecondary CTE classes are beyond traditional college age, community college practitioners have not always embraced models and approaches that transition high school students to college as eagerly as they have adopted workforce development strategies for adults (Alssid & Goldberg, 2011; Grubb, Badway, Bell, Bragg, & Russman, 1997). Whereas concern about access to postsecondary CTE programs for matriculating high school graduates is recognized as important to keeping enrollments healthy, postsecondary CTE programs often enroll substantial numbers of adults who already have labor market experience (with some also having prior college enrollment) and who seek to retrain or upgrade their skills to attain a better job. For many students, the postsecondary CTE curriculum provides a way to fulfill their employment goals, with college and industry-related credentials being the reward for program completion (Alssid & Goldberg, 2011).

In an extensive report on CTE for the National Center for Education Statistics (NCES), Levesque et al. (2008) reported that over 5,000 public, not-for-profit, and for-profit postsecondary institutions offered CTE (called "career education" in the report), suggesting that over 90% of Title IV eligible postsecondary institutions offered these courses. Over 1,100 public community colleges offered CTE courses, accounting for almost 20% of all two-, four-year, and less-than-two year, and public, not-for-profit, or for-profit postsecondary education providers. This summary report claimed that U.S. postsecondary institutions had approximately 4.4 million associate degree seekers and 1 million certificate seekers among all CTE students, with business and marketing, health care, education, and computer science majors as the predominant fields of study among associate degree-seeking students. Personal and consumer services and trade and industry were common CTE majors among students seeking certificates.

Students who enroll in postsecondary CTE programs are more diverse than the overall community college postsecondary student population. Compared to their counterparts enrolled in the general or transfer curriculum, a higher proportion of CTE students represent ethnic and racial minority groups, non-traditional college-age students, individuals who are financially independent from their families and married with financial dependants, students who attend college while also working part- or full-time, and low-income students. Hence, at this level, the diversity of student enrollment is extensive (Bragg, 2001b). This demographic diversity is especially evident among postsecondary CTE students who pursue college credentials at less-than-degree level (Levesque et al., 2008). Thus, whereas students enrolled in postsecondary CTE are demographically diverse relative to the rest of the college enrollment, stratification within CTE is apparent in that more minority and low-income students are present in the student group that pursues certificates rather than degrees. Specific skill training that prepares students for immediate employment is an important goal of many of these students-albeit an "en route" goal to the associate degree (Bragg, Cullen, Bennett, & Ruud, 2011, p. 9), which explains why a career pathway and program of study approach is important to achieving greater equity in student access and completion among underserved student populations (Foster, Strawn, & Duke-Benefield, 2011).

Predominant theories undergirding the skills-training agenda reinforce the essentialist approach (Rojewski, 2002) mentioned earlier in this chapter, along with human capital, globalization, signaling theory, and sheepskin theory, all prevalent in the CTE and higher education literature (see, for example, Levin, 2001). Gray and Herr (1995) pointed to the importance of CTE curriculum to build a competent workforce, arguing that skill-related training is predicated on human capital investment. Human capital theory (Becker, 1993) suggests that individuals and, by extension, the firms that employ them are most productive when high-quality goods and services are produced at a relatively low cost because individuals can apply the knowledge and skills they have acquired through education. Related to human capital theory is signaling theory (Spence, 2002), which suggests that an individual's ability to perform in the workplace is largely obscured from employers who need cues or signals to inform them when a person possesses the ability to perform productively in a job. Signaling theory provides rationale for why employers advocate for credentials and stridently encourage the education system to adopt them. Sheepskin effects extend from signaling theory, suggesting individuals who receive credentials (Bailey, Kienzl, & Marcotte, 2004). In an age where credentialing has assumed a top priority on the nation's higher education agenda (Matthew, 2011), an examination of CTE's role in awarding credentials to all students, especially underserved populations, is important.

Furthermore, arguments concerning globalization of the economy suggest that CTE reflects the influence of technology and increased commodification of the curriculum, resulting in increased centering of CTE as the primary mission of community colleges (Levin, 2000, 2001). Jacobs (2001) and Jacobs and Dougherty (2006) pointed to the importance of CTE programs that are tightly coupled to the economy to prepare students for technology-rich, globalized work environments. They argued that postsecondary CTE is not only critical to employment in the first job, but to ensuring that students and graduates keep pace with evolving technologies so that they are prepared for career advancement. In this respect, the form of CTE envisioned by Dougherty and Jacobs is consistent with the career pathways and programs of study that award a series of increasingly valuable credentials in the marketplace. Indeed, multiple pathways (Oakes & Saunders, 2008) that provide options for students, including certificates and degrees, represent a potentially democratizing form of curriculum. Questions remain, however, about whether these career pathways and programs of study are fulfilling this democratization goal and whether the credentials and other benefits associated with them are distributed equitably to all.

Promising Results

Research conducted for the national assessment of vocational education (Bailey et al., 2004; Silverberg, Warner, Fong, & Goodwin, 2004) using three national longitudinal datasets showed, overall, that students who completed postsecondary CTE programs did at least as well as, and in some cases significantly better, than students who enrolled in academic programs at comparable levels of postsecondary education. In a comprehensive synthesis of over 20 studies of the benefits of attending and completing a community college education, Belfield and Bailey (2011) reported "strong positive earnings from community college attendance and completion, as well as from progression to a 4-year college" (p. 60), and they reported that these gains increase over time. Certificate and associate degree holders had higher returns than individuals with similar years of postsecondary education but no credential, giving credence to the presence of the sheepskin effect, particularly for female students. Inadequate evidence of effects was available for ethnic, minority, and low-income groups, leaving the question of equity in student outcomes unanswered and suggesting the importance of research that disaggre-

gates results by subgroups to understand the role postsecondary CTE plays in addressing historic inequities faced by underserved populations.

Referencing again the democratization function of community colleges, recent experimentation with new vocationalism at the postsecondary level includes the offering of bridge programs, career pathways, and programs of study that are extended to underserved populations, including ethnic minority and low-income students, particularly adult learners. Prince and Jenkins (2005) observed that adult students are less likely to be retained in college and receive any type of certificate or degree than younger students. Evaluating the effects of bridge and career pathway programs for adults in Washington state, Prince and Jenkins applied the notion of a "tipping point" to the college enrollment and credentialing phenomenon, suggesting the importance of lowincome adult learners attending at least one year of college, typically CTE, and earning a credential to boost their labor market outcomes in terms of employment and earnings. Taking remedial courses concurrently with CTE produced significant average rates of employment and quarterly earnings, and these results held true for adults and low-income learners. Again, drawing on data from Washington state, Jenkins and Weiss (2011) recommended that younger learners would benefit from programs of study that link academic and CTE course work systematically with support services that encourage persistence. These results offer modest support for new vocationalism reforms that engage diverse learners and support their completion of certificates and degrees.

OLD DEBATES, PERSISTENT CHALLENGES

Philosophical and theoretical debates have been used to support vocational education policy and practice since its beginning nearly a century ago. As vocational education evolved into CTE, the debate over essentialism versus pragmatism has provided a useful frame for understanding the evolution of differentiated instruction and tracking, including detrimental effects, and the potential for new vocationalism reforms that have emerged slowly over the past two decades and continue to struggle to find a viable place in curriculum. Whereas the human capital rationale looms large as a rationale for CTE on several levels, Rojewski (2002) observed that some educators have consistently argued for CTE to be a response to economic and social issues, having a democratizing effect on the educational system because of its ability to reach and serve underrepresented learners. From this perspective, CTE programs recognize that students are complex, malleable, and receptive to learning when the teaching and learning process is reflective of the multiple dimensions of life (Sarkees-Wircenski & Scott, 1995). This aim suggests that CTE is not so much about preparing people for work as about whetting their appetite for learning and providing them with relevant options and opportunities to help them navigate through education, into the labor market, and, most importantly, on with all of the facets of their lives (Oakes & Saunders, 2008).

In spite of the century-long experience with CTE, there remains relatively limited knowledge of educational and economic benefits, particularly for ethnic and racial minorities, low-income students, and other underrepresented learners. Limitations to research designs that attempt to examine outcomes for students who participate in CTE relative to students with comparable characteristics who have not participated have been a perennial problem, going so far as to threaten future federal support for CTE (Duncan,

2011). Calls for improvements to CTE and better research to report empirical evidence of program quality and student outcomes are frequent (see, for example, Lewis, 2008), but mostly addressed insufficiently to satisfy the critics. Similar to the debate that gave birth to vocational education in the U.S. in 1917, the merits of CTE continue to be contested. Although CTE is unlikely to go away entirely, given the rise of new vocationalism, more scrutiny and better research are needed to understand how CTE benefits the increasingly diverse student populations that seek to access and complete community college credentials and degrees. The promise of a more democratic form of education and a better future for all the nation's learners may be at stake.

QUESTIONS FOR DISCUSSION

- 1. In what ways does the concept of "new vocationalism" pertain to the community college?
- 2. How do we address questions of CTE program quality in a period of declining resources combined with increased interest in CTE programs?
- 3. When education is increasingly looked upon as a private good, and the community college's access mission threatened by an economic development agenda, is CTE appropriately placed within the community college? Why or why not?

REFERENCES

- Alssid, J., & Goldberg, M. (2011). Workforce strategies for America's future: Community college contributions. In American Association of Community Colleges, 21st-Century Commission on the Future Community Colleges, Working Briefs (pp. 72–81). Washington, DC: Author.
- Bailey, T., Kienzl, G., & Marcotte, D. (2004, August). Who benefits from postsecondary occupational education? Findings from the 1980s and 1990s, No. 23. New York, NY: Teachers College, Columbia University.
- Becker, G. (1993). Human capital: A theoretical and empirical analysis, with special reference to education (3rd ed.). Chicago, IL: University of Chicago Press.
- Belfield, C., & Bailey, T. (2011). The benefits of attending community college: A review of the evidence. Community College Review, 39(1), 46–68.
- Benavot, A. (1983). The rise and decline of vocational education. Sociology of Education, 56, 63–76.
- Benson, C. S. (1997). New vocationalism in the United States: Potential problems and outlook. *Economics of Education Review*, 16(3), 201–212.
- Boesel, D., & McFarland, L. (1994, July). National assessment of vocational education: Final report to Congress (Vol. I). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.
- Bragg, D. (2001a). Community college access, mission, and outcomes: Considering intriguing intersections and opportunities. *Peabody Journal of Education*, 76(1), 93–116.
- Bragg, D. (2001b). The past, present and future role of federal vocational legislation in the United States. *Journal* of Applied Research in Community Colleges, 9(1), 57–67.
- Bragg, D., & Bennett, S. (2011). Introduction to pathways to results. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign. Retrieved from http://occrl.illinois.edu/files/Projects/ptr/Modules/PTR%20Intro%20Module.pdf
- Bragg, D., Cullen, D., Bennett, S., & Ruud, C. (2011). All or nothing? Midpoint credentials for college students who stop short of credential requirements (Working paper). Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign.
- Bragg, D., Layton, J., & Hammons, F. (1994, September). Tech prep implementation in the United States: Promising trends and lingering challenges. Berkeley, CA: National Center for Research in Vocational Education, University of California at Berkeley.
- Bragg, D., Loeb, J., Gong, Y., Deng, P., Hill, J., & Yoo, J. (2003). Transition from high school to college and work for tech prep participants in eight local consortia. St. Paul, MN: National Research Center for Career and Technical Education, University of Minnesota.

- Bragg, D., & Ruud, C. (2011). The adult learner and the applied baccalaureate: Lessons from six states. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign. Retrieved from http://occrl.illinois.edu/files/Projects/lumina/Report/LuminaABFinalReport.pdf
- Bragg, D., Zamani, E., Yoo, Jung-sup, & Hill, J. (2001, April). The impact of tech prep on college readiness and retention in two disparate consortia. Paper presentation at the annual meeting of the American Educational Research Association, Division, J, Seattle, WA.
- Brint, S., & Karabel, J. (1989). Diverted dream: Community colleges and the promise of educational opportunity in America 1900–1985. London: Oxford University Press.
- Calhoun, C., & Finch, A. (1976). Vocational education: Concepts and operations (2nd ed.). Belmont, CA: Wadsworth Publishing Company.
- Carnevale, A. P., Smith, N., & Strohl, J. (2010). *Help wanted: Projections of jobs and education requirements through 2018*. Washington, DC: Georgetown University, Center on Education and the Workforce. Retrieved from http://cew.georgetown.edu/jobs2018/
- Cohen, A. M., & Brawer, F. B. (2008). *The American community college* (5th ed.). San Francisco, CA: Jossey-Bass. Dewey, J. (1916, March 11). Vocational education. *New Republic*, *6*, 159–160.
- Dougherty, K. (2004). The contradictory college: The conflicting origins, impacts, and futures of the community college. Albany, NY: State University of New York Press.
- Duncan, A. (2011, February 2). The new CTE: Secretary Duncan's remarks on career and technical education. (Press release.) Retrieved from http://www.ed.gov/news/speeches/new-cte-secretary-duncansremarks-career-and-technical-education
- Evans, R., & Herr, E. (1978). Foundations of vocational education (2nd ed). Columbus, OH: Charles E. Merrill Publishing Company.
- Foster, M., Strawn, J., & Duke-Benefield, A. (2011). Beyond basic skills: State strategies to connect low-skilled adults to an employer-valued postsecondary education. Center for Law and Social Policy (2010). Retrieved from http://www.clasp.org/admin/site/publications/files/Beyond-Basic-Skills-March-2011.pdf
- Gray, K., & Herr, E. (1995). Other ways to win: Creating alternatives for high school graduates. Thousand Oaks, CA: Corwin Press, Inc.
- Grubb, N., Badway, N., Bell, D., Bragg, D., & Russman, M. (1997, October). Workforce, economic, and community development: The changing landscape of the entrepreneurial community college. Mission Viejo, CA: League for Innovation in the Community College, National Center for Research in Vocational Education.
- Grubb, W. N., & Lazerson, M. (1974). American education and vocationalism: A documentary history, 1870– 1970. New York, NY: Teachers College Press.
- Grubb, W. N., & Lazerson, M. (2005). *The education gospel: The economic power of schooling.* Cambridge, MA: Harvard University Press, and National Council for Occupational Education.
- Harmon, R., & MacAllum, K. (2003). Documented characteristics of labor market-responsive community colleges and a review of supporting literature. Washington, DC: Academy for Educational Development. (ED 479 041)
- Hayward, G. C., & Benson, C. S. (1993). Vocational-technical education: Major reforms and debates 1917-present.
 Washington, DC: Office of Vocational and Adult Education, U.S. Department of Education. (ERIC Document Reproduction Service No. ED 369 959)
- Hull, D. (Ed.). (2005). *Career pathways: Education with a purpose*. Waco, TX: Center for Occupational Research and Development.
- Jacobs, J. (2001). What is the future of post-secondary occupational education? *Journal of Vocational Education Research*, 26(2), 172-205.
- Jacobs, J., & Dougherty, K. (2006). The uncertain future of the community college workforce development mission. *New Directions for Community Colleges, no. 136* (pp. 53–62). San Francisco, CA: Jossey-Bass.
- Jenkins, D., & Weiss, M. (2011, September). Charting pathways to completion for low-income community college students. CCR Working Paper No. 34. New York, NY: Teachers College, Columbia University.
- Kaufman, P., Bradby, D., & Teitelbaum, P. (2000). High Schools That Work and whole school reform: Raising academic achievement of vocational completers through the reform of school practice. Columbus, OH: National Center for Dissemination of Career and Technical Education, The Ohio State University. (ERIC Document Reproduction Service No. ED 438498)
- Labaree, D. (2010). The thinning mission of public mission of the American public school. Paper presentation for the Educational Theory Summer Institute, College of Education, University of Illinois at Urbana-Champaign.
- LaFollette, A. (2011). An historical policy analysis of the Carl D. Perkins legislation: Examining the history, creation, implementation and reauthorization of the law. (Doctoral dissertation.) Retrieved from IDEALS http://hdl.handle.net/2142/26060
- Lazerson, M., & Grubb, W. N. (1974). American education and vocationalism: A documentary history 1870–1970. New York, NY: Teachers College Press.

202 • Debra D. Bragg

- Lekes, N., Bragg, D., Loeb, J., Oleksew, C., Mazsalek, J., Laraviere, M., & Hood, L. (2007). The impact of careertechnical education transition program practices on student outcomes. St. Paul, MN: National Research Center for Career and Technical Education, University of Minnesota.
- Levesque, K., Laird, J., Hensley, E., Choy, S. P., Cataldi, E. F., & Hudson, L. (2008). Career and technical education in the United States: 1990 to 2005 (NCES 2008-035). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- Levin, J. (2000). The revised institution: The community college mission at the end of the twentieth century. Community College Review, 28(2), 1–25.
- Levin, J. (2001). Globalizing the community college: Strategies for change in the twenty-first century. New York, NY: Palgrave.
- Lewis, M. (2008). Effectiveness of previous initiatives similar to programs of study: Tech prep, career pathways, and youth apprenticeships. *Career and Technical Education Research*, 33(3), 165–188.
- Lewis, T., & Cheng, S. (2006). Tracking, expectations, and the transformation of vocational education. American Journal of Education, 113(1), 67-99.
- Lucas, S. (1999). Tracking inequality: Stratification and mobility in the American high school. New York, NY: Teachers College Press.
- Lynch, R. L. (2000). New directions for high school career and technical education in the 21st century (Information Series No. 384). Columbus, OH: The Ohio State University, ERIC Clearinghouse on Adult, Career, and Vocational Education. (ERIC Document Reproduction Service No. ED 444 037)
- Matthew, D. (2011). The case for college completion. In American Association of Community Colleges, 21st-Century Commission on the Future Community Colleges, Working Briefs (pp. 22-30). Washington, DC: Author.
- Meeder, H. (2008). The Perkins Act of 2006: Connection career and technical education with the college and career readiness agenda. Washington, DC: Achieve, Inc. Retrieved from http://www.achieve.org/files/Achieve-CTEPolicyBrief-02-07-08.pdf
- Meers, G. D. (1987). Handbook for vocational special needs education (2nd ed.). Rockville, MD: Aspen.
- Meier, K. (2008). The community college mission: History and theory, 1930–2000. (Unpublished doctoral dissertation.) University of Arizona, Tucson, AZ.
- Oakes, J. (1985). Keeping track: How schools structure inequality. New Haven, CT: Yale University Press.
- Oakes, J., & Saunders, M. (2008). Beyond tracking: Multiple pathways to college, career, and civic participation. Cambridge, MA: Harvard University Press.
- Parnell, D. (1985). The neglected majority. Washington, DC: Community College Press. (ERIC Document Reproduction Service No. ED 262 843)
- Prince, D., & Jenkins, D. (2005, April). Building pathways to success for low-skill adult students: Lessons for community college policy and practice from a statewide longitudinal tracking study. *Community College Research Center Brief, no. 25.* New York, NY: Teachers College, Columbia University.
- Prosser, C. A. (1913, May). The meaning of industrial education. Vocational Education, 406, 401-410.
- Rojewski, J. (2002). Preparing the workforce of tomorrow: A conceptual framework for career and technical education. Columbus, OH: National Dissemination Center for Career and Technical Education, The Ohio State University.
- Ruffing, K. (n.d.). The history of career clusters. Retrieved from http://www.google.com/search?q=Ruffing%2C +Career+Clusters%2C+history&ie=utf-8&oe=utf-8&aq=t&rls=org.mozilla:en-US:official&client=firefox-a
- Sarkees-Wircenski, M., & Scott, J. L. (1995). Vocational special needs (3rd ed.). Homewood, IL: American Technical.
- Schmid, C. (2010). Challenges and opportunities of community colleges. In F. Lazin, M. Evans, & N. Jayaram (Eds.), *Higher education and equality of opportunities: Cross-national perspectives* (pp. 25–40). Lanham, MD: Lexington Books.
- Silverberg, M., Warner, E., Fong, M., & Goodwin, D. (2004). National assessment of vocational education. Washington, DC: United States Department of Education.
- Spence, M. (2002, June). Signaling in retrospect and the informational structure of markets. The American Economic Review, 92(3), 434-459.
- Taylor, J., Kirby, C., Bragg, D., Oertle, K., Jankowski, N., & Khan, S. (2009, July). Illinois program of study guide. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign.

Wirth, A. (1992). Education and work for the year 2000: Choices we face. San Francisco, CA: Jossey-Bass.

Wonacott, M. (2003). *History and evolution of vocational and career and technical education*. Columbus, OH: Center for Education and Training for Employment, Ohio State University.

13

THE COMPARATIVE POLITICAL ECONOMY OF VOCATIONAL EDUCATION

Lessons for the Study of Community Colleges in the U.S.

LUCIANA DAR

Although the study of community colleges in the U.S. has a long history, only recently has the institution secured broader attention and legitimacy in the field of higher education (Harper & Jackson, 2011). The same is true for community colleges' standing in U.S. education policy and political discourses, for which the institution has become the focus of the federal government's efforts to increase postsecondary attainment, access by low-income and underrepresented students to higher education, and the efficiency of public investments in the tertiary sector (Biden, 2010). This shift in attention by scholars and policy-makers, albeit delayed, is welcome, given that community colleges enrolled 44% of all undergraduate students in 2008 (American Association of Community Colleges, 2011). Nevertheless, scholarship on community colleges remains segmented and often disconnected from developments that are taking place in the social science disciplines and educational sciences, is based on a limited range of theoretical/conceptual frameworks and methodological approaches, and focuses mainly on issues of access and completion (Dougherty, 2006; Melguizo, 2011).

Conversely, the study of vocational education and training (VET), or career and technical education (CTE), as the U.S.'s legislated term, has been at the center of scholarship in the fields of comparative education sciences, educational sociology, and the economics of education for more than three decades (Brown, Green, & Lauder, 2001; Powell & Solga, 2008; Stevens, Armstrong, & Arum, 2008). By recognizing that one cannot explain the evolution, or ascertain the socio-economic value, of vocational education by analyzing educational systems in isolation, the large and diverse scholarly literature on VET has also addressed a larger set of questions than those tackled by scholarship on community colleges (Mayer & Solga, 2008). Most importantly, this scholarship shows that the design and implementation of VET policies must take into consideration political-economic institutions, relevant actors (i.e., unions, employers, and private education providers), and path-dependent characteristics of VET systems (i.e., school versus employer-based and general versus occupational focus, as well as connections to the labor market).