

BRINGING THE MARKET TO STUDENTS: SCHOOL
CHOICE AND VOCATIONAL EDUCATION IN
THE TWENTY-FIRST CENTURY

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[T]he very best service which any one can render to what is called the higher education is to teach the present generation to provide a material or industrial foundation. On such a foundation as this will grow habits of thrift, a love of work, economy, ownership of property, bank accounts. Out of it in the future will grow practical education, professional education, positions of public responsibility. Out of it will grow moral and religious strength. Out of it will grow wealth from which alone can come leisure and the opportunity for the enjoyment of literature and the fine arts.¹

INTRODUCTION

Our national aspirations have long championed the value of education as the gateway to life opportunity. It is the avenue through which all Americans, regardless of their geographic, economic, or ethnic origins may have an opportunity for economic advancement. In truth, however, some may argue that scholars, practitioners, and policymakers face a lack of political will to critically examine and address persistent educational disparities in opportunity that further entrench employment and wealth stratification. Countless scholars and educational advocates have called for a major overhaul of our education systems, and indeed, in previous articles I have discussed the critical role that federal political branches play in shaping educa-

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1 BOOKER T. WASHINGTON, INDUSTRIAL EDUCATION FOR THE NEGRO (1903), *available at* <http://teachingamericanhistory.org/library/index.asp?document=62>.

tional opportunity—alternately ameliorating and perpetuating deeply entrenched inequities.² It is abundantly clear, however, that no single educational policy suggestion will yield the kind of comprehensive, multidimensional solutions necessary to address the myriad ways in which geography, race, ethnicity, wealth, and income too often serve as determinants for access to quality education and thus life opportunity. We must also look to places of political will and practical expediency. One area that is ripe for analysis is the potential of “federally encouraged” educational innovations that may partially alleviate some of the intractable educational disparities that capture our collective consciousness. One such educational innovation that federal policy has alternately aided and hampered is the role of vocational education, more recently known as career and technical education, in expanding educational and employment opportunities. This form of skills-based learning has sustained criticism for creating or maintaining systems of educational and economic stratification. Yet, is it possible that if such programs were well conceived and structured for current academic and employment needs, they might be more effective in providing marketable skills to those students who might otherwise struggle to remain in the education system? If so, there may be some normative implications in examining the role of vocational education in shaping how we conceive of multi-layered responses to persistent educational disparities.

This Essay suggests we may have a critical opportunity to improve the human social capital of the American workforce by reviving and reimagining vocational education that is designed to prepare students for today’s global, knowledge-based economy.³ A current focus on college preparedness alone “ignores the reality that most students will not immediately go to college, and will instead enter the workforce.”⁴ An examination of historic trends and current possibilities in vocational education may illuminate some of the ways in which long-standing vocational educational structures have negatively impacted the

2 See, e.g., Lia Epperson, *Legislating Inclusion*, 6 HARV. L. & POL’Y REV. 91 (2012); Lia Epperson, *Equality Dissonance: Jurisprudential Limitations and Legislative Opportunities*, 7 STAN. J. C.R. & C.L. 213 (2011); Lia Epperson, *Undercover Power: Examining the Role of the Executive Branch in Determining the Meaning and Scope of School Integration Jurisprudence*, 10 BERKELEY J. AFR.-AM. L. & POL’Y 146 (2008).

3 See generally Pedro Carneiro & James J. Heckman, *Human Capital Policy*, in *INEQUALITY IN AMERICA* 77 (2003) (suggesting that “human capital,” or a focus on education, emphasizes investments individuals make to improve labor market value, especially via education and experiential learning).

4 Nina R. Frant, Comment, *The Inadequate Resume of School Education Plans*, 51 HOW. L.J. 819, 860 (2008).

most vulnerable populations. Due to historic racial, ethnic, and income segmentation in American education, the most vulnerable students who historically have been underserved by vocational education may be better served by examining the historic failings and current possibilities.

At the same time scholars, educators, and advocates have argued for increased focus on academic achievement, school choice mechanisms have gained prominence as effective tools to attain such goals. School choice mechanisms include a host of educational options allowing students to take advantage of less traditional educational structures such as charter schools, magnet programs, and vouchers. Some school choice mechanisms have been widely criticized for the potential to threaten traditional public education systems while simultaneously disadvantaging the most vulnerable student populations.⁵ Nonetheless, equitably constructed school choice mechanisms may be strong vehicles to create more comprehensive vocational educational opportunities.⁶ Providing different learning paradigms through school choice programs may facilitate a multi-modal distribution of technical skills that better prepare a diverse student population for both post-secondary education and employment success.

This Essay proceeds in five parts. Part I examines the history of vocational and technical education in our public schools, examining federal legislation, as well as some of the strongest criticisms of such programs. Part II examines the current state of educational attainment, college matriculation, and employment status among young people. In doing so, this Essay suggests that the current educational

5 See, e.g., JAMES E. RYAN, *FIVE MILES AWAY, A WORLD APART* 35–41 (2010); James Forman, Jr., *Do Charter Schools Threaten Public Education? Emerging Evidence from Fifteen Years of a Quasi-Market for Schooling*, 2007 U. ILL. L. REV. 839, 840 (2007) (discussing central criticism that a school choice system privileges those students whose parents' race, class, or educational attainment better positions them to navigate the market for education); Erica Frankenberg et al., *Choice Without Equity: Charter School Segregation* 19 EDUC. POL'Y ANALYSIS ARCHIVES 1 (2011) (meta-analysis of relationship between charter schools and segregation across the country finding that charter schools currently segregate students by race and class); Martha Minow, *Confronting the Seduction of Choice: Law, Education, and American Pluralism*, 120 YALE L.J. 814, 843–48 (2011) (arguing school choice mechanisms disadvantage the most vulnerable student populations, further racial and economic segregation, and limit vital public debate on the very character of the kinds of choices school systems are permitting).

6 See, e.g., RICHARD D. KAHLBERG & HALLEY POTTER, *DIVERSE CHARTER SCHOOLS* (2012) (discussing more racially and socioeconomically diverse models of school choice); Frankenberg, *supra* note 5, at 47 (noting more equitable models of school choice incorporate measures to mitigate racial and socioeconomic isolation such as free transportation, outreach, and integration goals).

and employment crisis may be due in part to a mismatch between our nation's economic and industry needs and the current K-12 and college curricula. A reimagined and reinvigorated focus on career and technical education may partially address this mismatch. Part III examines the evolution and development of school choice programs to suggest such programs may be a helpful way to consider expanding career and technical education programs. Part IV sets forth some potential suggestions for the ways in which career and technical educational programs may respond to the needs of our changing economy. Finally, Part V addresses the normative implications of a focus on vocational education, and examines some of the remaining concerns with the impact of such educational programs on the most vulnerable student populations.

I. HISTORY OF VOCATIONAL EDUCATION

A. *Federal Legislation*

Congress first created legislation supporting and funding vocational education long before introducing other broad-based education funding laws. As the nation transitioned from an agricultural to an industrial based economy, and at the dawn of the First World War, Congress passed the Smith-Hughes National Vocational Education Act of 1917.⁷ The Smith-Hughes Act introduced the concept of skills-based learning to address the vocational needs of students entering the labor force. The overriding goal of the legislation was “to fit [students] for useful employment.”⁸ Thus, in the early twentieth century vocational education provided skills necessary for farm, trade, and industrial work. The Act required state and local governments to match the funds provided by the federal government, and as a source of training,⁹ the program achieved overwhelming success. Programs

7 Smith-Hughes National Vocational Education Act of 1917, Pub. L. No. 64-347, Ch. 114, 39 Stat. 929 (repealed 1997). In the ensuing years, support for vocational education expanded through the passage of the Vocational Education Act of 1946, Pub. L. No. 79-586, 60 Stat. 775 (also known as the George-Barden Act), and the National Defense Education Act of 1958, Pub. L. No. 85-864, 72 Stat. 1580 (repealed 1986).

8 The Act defined vocational education as that education “which is under public supervision or control; that the controlling purpose of such education shall be to fit for useful employment; that such education shall be of less than college grade and be designed to meet the needs of persons over fourteen years of age . . . who have entered upon or who are preparing to enter upon the work of the farm [or the work of a trade or industrial pursuit].” 1917 Vocational Education Act §§ 10, 11.

9 See *id.* at §9; HOWARD R. D. GORDON, *THE HISTORY AND GROWTH OF CAREER AND TECHNICAL EDUCATION IN AMERICA* 15, 66, 74 (3d ed. 2008) (describing Smith-Hughes

responded to the needs of the economy and the political pressures of the times. For example, many programs included a focus on labor market participation to boost war efforts during World War I and II.¹⁰ Federal programs developed to provide training for students and adults in the workforce to contribute to the war industries.¹¹

Under the leadership of Presidents Eisenhower and Kennedy, vocational education programs stressed increased skills building for low-income and marginalized communities.¹² In 1963, President Lyndon Johnson signed the successor to the Smith-Hughes Act. The Vocational Education Act of 1963¹³ (“VEA”) expanded federal funding for vocational education and increased the types of employment training that could be considered “vocational education” for purposes of the Act.¹⁴ The VEA provided coverage for training in white-collar fields such as accounting and finance.¹⁵ In addition, 1968 and 1976 amendments to the VEA focused on more vulnerable student populations, including the disabled, bilingual, and other traditionally disadvantaged groups.¹⁶

The most recent legislation addressing the provision of vocational education, the Carl D. Perkins Vocational Education Act, passed in 1984.¹⁷ The Perkins Act consisted of two fundamental objectives. First, the Act aimed to create a more skilled labor force and increase labor market participation.¹⁸ In addition, the Act aimed to provide more equal opportunities and address the needs of at-risk populations.¹⁹ Congress has since amended the Perkins Act several times.²⁰ The Perkins Act increased the legislative focus on the educational

as the first source of federal funding for vocational education, crediting the workforce development it provided as having helped fuel the era of economic prosperity that lasted between the end of World War I and the Great Depression, and noting that the law provided federal funding matching local funding).

10 GORDON, *supra* note 9, at 65–69.

11 *Id.*

12 *Id.*

13 Vocational Education Act of 1963, Pub. L. No. 88–210, 77 Stat. 403 (codified as amended at 20 U.S.C. §§ 2301–2302 (2006)).

14 *See* GORDON, *supra* note 9, at 75–76.

15 *Id.*

16 The amendments allowed for the use of funds for a broader swath of students, including high school and post-secondary students; students who had left high school; individuals in need of retraining in the labor market; and individuals with academic, socioeconomic, or other obstacles.

17 Pub. L. No. 98-524, 98 Stat. 2435 (1984) (repealed 2001).

18 *Id.* at § 2(3).

19 GORDON, *supra* note 9, at 94.

20 *See* Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990, Pub. L. No. 101-392, 104 Stat. 753 (also known as *Perkins II*); Carl D.

needs of disabled and disadvantaged students.²¹ In addition, later iterations of the Perkins Act shifted the focus from a purely career training model to one that emphasizes academics in addition to skill development.²² Congress passed the current legislation, the Carl D. Perkins Career and Technical Education Improvement Act,²³ in 2006. Also known as Perkins IV, the Act is up for reauthorization this year. The Perkins IV Act increased the emphasis on combining academic and employment skills in vocational, or career and technical education.²⁴ Part of the reauthorization included highlighting the important connections between secondary and post-secondary education and improving state and local accountability. The hope of this most recent legislation was that an emphasis on integrating academic and career and technical instruction, coupled with greater accountability mechanisms, would yield greater employment and opportunities for

Perkins Vocational and Applied Technology Education Amendments of 1998, Pub. L. No. 105-332, 112 Stat. 3076 (also known as *Perkins III*).

21 See 20 U.S.C. § 2301 (2006) (setting out the purpose of the Perkins Act as “develop[ing] more fully the academic and career and technical skills of secondary education students and post-secondary education students who elect to enroll in career and technical education programs”); § 2342(c)(1) (requiring participating state agencies to develop six-year plans accounting for the educational opportunities and performance of “special populations”); see also Frant, *supra* note 4, at 825 (“Vocational education for the twenty-first century uses career-oriented instruction to foster high academic attainment in reading and mathematics that often mirrors the competencies attained in current college preparatory tracks.”).

22 See Frant, *supra* note 4, at 825–26.

23 Pub. L. 109-270, 120 Stat. 683 (codified as amended at 20 U.S.C. §§ 2301–2414 (2006)).

24 The 2006 Carl D. Perkins Act is the first piece of legislation to officially change the name from “vocational” to “career and technical education.” The Act defines career and technical education as:

[O]rganized educational activities that offer a sequence of courses that provides individuals with coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions; provides technical skills proficiency, an industry-recognized credential, a certificate, or an associate degree; and may include prerequisite courses . . . that meet the requirements of this subparagraph; and include competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of an industry, including entrepreneurship, of an individual.

20 U.S.C. § 2302(5) (2006).

economic advancement to high-skill, high-wage occupations.²⁵ The question remains how successful such legislation has been²⁶ in providing increased opportunities, particularly to those at the bottom of the economic and educational ladder.²⁷

B. Historic Hazards and Current Criticisms of Vocational Education

Much of the criticism of vocational education programs throughout history centers on the notion that such programs foster educational dichotomy, which in turn perpetuates economic inequality. While some students receive academic training to prepare them for higher education, economic mobility, and greater life opportunity, vocational education students receive limited training and less academic instruction that prepares them only for a narrow category of jobs with little potential for economic and career advancement. Since the enactment of the Smith-Hughes Act, scholars and educational advocates have debated the long-term efficacy of vocational education. Even philosophers like John Dewey and other advocates of progressive education have long argued that a sole focus on vocational education robs students of necessary skills.²⁸ To ensure all students may become effective members of a democratic society all students should gain exposure to critical thinking and other forms of creative instruction.²⁹ Creating a separate system of vocational education, critics argued, would deprive those students of vital skills necessary for

25 Since the 1990s, Congress has passed a number of other pieces of legislation purporting to help increase workforce preparedness and labor market participation. *See, e.g.*, School-to-Work Opportunities Act of 1994, Pub. L. No. 103-239, 108 Stat. 568 (creating partnerships between educators and employers); Personal Responsibility and Work Opportunity Reconciliation Act, Pub. L. No. 104-193, 110 Stat. 2105 (1996) (containing provisions requiring welfare recipients to work within two years of receiving federal assistance, and allowing up to twelve months of career and technical education to be counted as work); Workforce Investment Act, Pub. L. No. 105-220, 112 Stat. 936 (1998) (replacing the Job Training Partnership Act, the law assisted state development of strategic plans for job training services); No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425.

26 *See infra* Part II.

27 *See infra* Part IV.

28 *See* GORDON, *supra* note 9, at 29.

29 *See generally* JOHN DEWEY, THE NEW REPUBLIC (1915). Dewey argued that “a separation of trade education and general education of youth has the inevitable tendency to make both kinds of training narrower, less significant and less effective than the schooling in which the material of traditional education is recognized to utilize the industrial subject matter—active, scientific, and social—of the present day environment.” *Id.* at 42.

long-term growth and achievement, and would further entrench economic segregation.³⁰

This stigmatization of vocational education is not without merit. At its inception, the Smith-Hughes Act baked educational segregation into the fabric of educational funding from the start of the twentieth century. At the same time, the Smith-Hughes Act served to facilitate and entrench economic, gender, and instructional segregation. As some scholars have noted, the Act provided learning opportunities that mirrored the racial and gender stratification in the labor market, and increased employment opportunities by generating access to blue-collar rather than white-collar employment.³¹ In addition, the Smith-Hughes Act also secured a division between academic and labor training. The Act funded the salaries of vocational instructors, for example, but did not allow the funding to be used for any academic education.³² Moreover, students who received instruction from teachers paid by the Act could receive no more than fifty percent academic instruction.³³ Since students learned only those skills specific to particular jobs, rather than academic or theoretical skills, they were less able to adapt to new technologies introduced in the workplace.³⁴ This instructional segregation introduced by the Smith-Hughes Act remained a hallmark of vocational education throughout the twentieth century. Furthermore, ineffective partnerships with industries

30 Dewey further argued that educational segregation fosters economic segregation:

It is self-evident that under the divided plan, either the public must meet the expense of a vast and costly duplication of buildings, equipment, teachers and administrative directors; or else the old schools will have to strip themselves of everything but the rudiments of a traditional bookish education; and the new schools confine themselves to [such] a narrow trade preparation that the latter will be ineffective for every industrial end except setting up a congested labor market in the skilled trades and a better grade of labor at public expense—for employers to exploit.

Id. at 284.

31 See, e.g., James W. Ainsworth & Vincent J. Roscigno, *Stratification, School-Work Linkages and Vocational Education*, 84 *SOC. FORCES* 257, 259 (2005) (noting that Congress had two goals for vocational training in the 1930s, to create programs that reflected the local labor market segmentation in terms of race and gender and to reduce unemployment by matching workers to available blue-collar jobs).

32 Smith Hughes Vocational Education Act of 1917, Pub. L. No. 64-347, 39 Stat. 929; see also GORDON, *supra* note 9, at 75–76 (recounting that a panel whose work led to the Vocational Education Act of 1963 determined that the focus of vocational education in the United States needed to be updated to respond to new technology and workforce needs).

33 See GORDON, *supra* note 9, at 75–76.

34 See Ainsworth & Roscigno, *supra* note 31, at 276.

and post-secondary educational institutions such as trade schools, community colleges, and businesses, coupled with subpar training facilities and laboratories, as well as inadequate career counseling and guidance, severely hampered the effectiveness of such learning models.

Such educational segregation served to reinforce existing racial and economic caste lines in the United States through systems of tracking or ability grouping. Tracking has been a method by which lower-income students and students of color are fed into the “work” track in lieu of access to college preparatory tracks.³⁵ Historically, tracking developed not only as a method of grouping students within schools by perceived academic ability, but also as a method to avoid racial integration in schools.³⁶ When Supreme Court jurisprudence and federal legislation required school districts to desegregate and to provide fair funding to schools educating students of all races, many systems implemented tracking systems to replicate segregation within schools.³⁷ Traditionally, ability group tracking may have included tracks for college preparation, white-collar employment, and blue-collar employment with limited academic focus.³⁸ In Washington, D.C. for example, the school district’s tracking policy consigned a disproportionate number of students of color to such “blue collar” tracks, regardless of the students’ ability.³⁹ In addition, such vocational education usually focused on very few program areas, provided inadequate student work-based experience, and subpar facilities to allow for sufficient instruction.⁴⁰

While this type of racially influenced tracking used by the Washington, D.C. schools and at issue in the 1967 *Hobson v. Hansen*⁴¹ case is no longer the norm, vocational education still suffers from criticism.⁴² With the increased emphasis on raising academic achievement in pub-

35 See *Lemon v. Bossier Parish Sch. Bd.*, 444 F.2d 1400 (5th Cir. 1971); *Moses v. Wash. Parish Sch. Bd.*, 330 F. Supp. 1340, 1340–41 (E.D. La. 1971), *aff’d*, 456 F.2d 1285 (5th Cir. 1972) (per curiam).

36 See Charles T. Clotfelter et al., *Segregation and Resegregation in North Carolina’s Public School Classrooms*, 81 N.C. L. REV. 1463, 1468 (2003) (noting research that examines placement patterns of students into academic tracks and finds that students faced “different probabilities of being assigned to particular academic tracks” based on their race, even after controlling for achievement levels).

37 See *Lemon*, 444 F.2d at 1400; Daniel J. Losen, *Silent Segregation in Our Nation’s Schools*, 34 HARV. C.R.-C.L. L. REV. 517, 527–28 (1999).

38 See *Hobson v. Hansen*, 269 F. Supp. 401, 444 (D.D.C. 1967).

39 *Id.*

40 See GORDON, *supra* note 9, at 12–14.

41 269 F. Supp. 401 (D.D.C. 1967).

42 *Id.*

lic schools through higher test scores, some have viewed vocational education as “the neglected stepchild of education reform,”⁴³ a relic of an earlier agricultural or industrial era. Today, even some politicians view vocational education as emphasizing only career readiness at the expense of academic achievement, thus minimizing the potential effectiveness of such programs in a world where higher education is increasingly necessary. As recently as 2005, during the Perkins Act reauthorization, President George W. Bush suggested eliminating the requirement that states spend federal funds on career and technical education.⁴⁴ Rather, Bush felt such dollars would be better spent under the newly enacted No Child Left Behind Act,⁴⁵ allowing states to focus more directly on bolstering academic achievement.⁴⁶ While some measures of No Child Left Behind have facilitated business involvement in education reform,⁴⁷ no provisions approximate the scope of workforce preparedness policy in Perkins IV legislation.

Current criticisms of traditional vocational education programs mirror the historic criticisms. First, many critics argue that vocational education damns low-income and minority students with low expectations, which in turn condemns them to poverty and the criminal justice system.⁴⁸ This argument dates back to the early twentieth century Progressive Era critiques that racial and ethnic minorities were incapable of learning, which in turn led to the mid- to late-twentieth century tracking debates. In addition, critics contend that vocational educa-

43 Arne Duncan, U.S. Sec’y of Educ., *The New CTE: Secretary Duncan’s Remarks on Career and Technical Education*, U.S. Dep’t of Educ. (Feb. 2, 2011), available at <http://www.ed.gov/news/speeches/new-cte-secretary-duncans-remarks-career-and-technical-education>.

44 Gary Hoachlander, *Does Vocational Education Have a Role to Play in High School Reform?*, EDUC. WEEK, Apr. 27, 2005, at 38.

45 No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425 (2002) (codified as amended in scattered sections of 20 U.S.C.).

46 George Archibald, *House Refuses to Combine Programs, Perkins Grant Requirement Kept Separate from No Child Left Behind*, WASH. TIMES, May 5, 2005, at A13.

47 While not explicitly a workforce preparedness act, No Child Left Behind has also supported some business involvement in education reform. For example, the Act approved the use of funds by nonprofit organizations and public or private partnerships with businesses and industry organizations to implement demonstration projects that equip students to meet state academic content standards and student achievement standards. 20 U.S.C. §§ 6301, 6492 (2006); see also 20 U.S.C. §§ 6535(e), 7267d(c) (2006) (further provisions outlining school-business partnerships).

48 See, e.g., Kenneth A. Rasinski & Steven Pedlow, *The Effect of High School Vocational Education on Academic Achievement Gain and High School Persistence: Evidence from NELS 88* (1994), available at <http://www2.ed.gov/pubs/VoEd/chapter5/index.html> (finding that students in vocational programs do not score as high in mathematics, science, and reading as students in academic programs).

tion fails to provide the academic rigor necessary for any student's success and that the outdated modes of vocational training provide minimal assistance in the current economy. The argument suggests that the high levels of reading, math, and science literacy necessary for high school graduation are also necessary for any decent employment today. Finally, critics suggest that such programs fail to address the root causes of educational inequity such as early educational literacy and teacher quality in low-income, minority schools.⁴⁹

The checkered history of vocational education visibly influenced existing instructional segregation and racial, ethnic, and economic stratification. While there have been focused improvements in more recent forms of federal legislation assigned to address more vulnerable student and workforce populations,⁵⁰ the effects of historic segmentation remain. The tracking of low-income and minority students to work programs in lieu of access to college preparatory programs, the concentration of limited program areas, and the inadequate academic rigor of traditional vocational education programs restricted participants' economic and educational options for advancement. In many cases, this also translated into further entrenching existing racial and socioeconomic disparities. In today's rapidly changing labor market and economy, these existing inequalities are potentially more dangerous, as the need for educational attainment to broaden economic opportunities has become greater as income inequality in the nation grows.

II. EDUCATIONAL ATTAINMENT AND IMPLICATIONS FOR EMPLOYMENT

Scholars, policymakers, and educational advocates have bemoaned the current crisis in academic achievement in the United States. Widening gaps in educational attainment have concurrent and consequential effects on employment and earning potential as well. An understanding of the current landscape of educational and employment disparities in the United States helps illuminate the need for different paradigms of learning to provide a variety of pathways for educational and economic success for today's students. To better understand the normative implications of an increased emphasis on career and technical education today, the preceding examination of

49 See, e.g., Sarah B. Miles & Deborah Stipek, *Contemporaneous and Longitudinal Associations Between Social Behavior and Literacy Achievement in a Sample of Low-Income Elementary School Children*, 77 CHILD DEV. 103, 111–12 (2006) (finding that low literacy in early grades is a strong predictor of long-term disciplinary problems).

50 See *supra* notes 17 and 20.

vocational education's historic challenges and potential roadblocks must be considered in light of this rapidly changing landscape.

A. *Status of Employment and Education*

The nation is in the midst of significant labor and economic change, marked by the "Great Recession," the demise of the automobile industry, plant closings, and union wage debates. According to the Bureau of Labor Statistics, the nation boasts record high rates of unemployment, and correspondingly low rates of educational attainment.⁵¹ Perhaps surprisingly, the number of working-age adults enrolled in college-level education has declined for almost two decades.⁵² Less than one-third of the workforce has a college degree, and about half of the workforce attended college but never obtained a college degree.⁵³ It would be imprudent to dismiss labor-market realities. Many low-income students have significant and demanding financial needs that limit their immediate entry into post-secondary education. Rather, there are students who may only commit to such education if they have assurances it will lead to increased benefits and wages. For those students who do matriculate to college, but fail to earn a certificate or degree that can assist them in the labor market, they have often incurred significant debt for no guarantee of increased economic advantage.⁵⁴ Such statistics suggest that educational policy change should invest in human social capital in such a way to increase the long-term economic prospects of these current low-wage workers.

51 See U.S. CENSUS BUREAU, EDUCATIONAL ATTAINMENT IN THE UNITED STATES: 2003, at 7 (2004) (finding that though nearly sixty percent of the labor force in 2003 had "some college," only about thirty-two percent held a Bachelor's degree or more); *Adults With College Degrees in the United States, by County*, CHRON. HIGHER EDUC., Jan. 23, 2011, available at <http://chronicle.com/article/Adults-With-College-Degrees-in/125995> (compiling Census data into an interactive graphic relating that only 27.5% of American adults have a college degree); Press Release, U.S. Bureau of Labor Statistics, The Employment Situation—January 2012 (Feb. 3, 2012), available at <http://www.bls.gov/news.release/empsit.nr0.htm> (reporting the national unemployment rate at 8.3% for January 2012).

52 NAT'L CTR. FOR PUB. POL'Y & HIGHER EDUC., MEASURING UP 2008 (2008), available at <http://measuringup2008.highereducation.org/print/NCPPEMUNationalRpt.pdf>.

53 See U.S. CENSUS BUREAU, *supra* note 51, at 2 (finding that in 2003, 29% of men and 26% of women had graduated from college, and 53% of men and 52% of women had completed some college).

54 Don Troop, *Here's Your Diploma. Now Here's Your Mop*, CHRON. HIGHER EDUC., Oct. 17, 2010.

The statistics for youth educational attainment are particularly bleak. Less than thirty percent of youth under the age of thirty have a bachelor's degree, and twenty-five percent of today's schoolchildren will not attend college at all.⁵⁵ Indeed, according to one study, for every one hundred students who enter ninth grade, only eighteen will complete any kind of post-secondary degree within six years of graduating from high school.⁵⁶

The harsh reality is that for those American youth at the bottom of the educational ladder, there are strikingly fewer opportunities to effectively build any economic stability. Clearly, such low levels of high school graduation and college matriculation severely limit the life opportunities of today's young adults.⁵⁷ While in 1970, nearly sixty percent of high school graduates were in the middle class, the share fell to forty-five percent by 2007.⁵⁸ Those without a high school degree earn, on average, thirty-four percent less than those with a high school diploma, who in turn earn thirty to sixty percent less than those with a two- or four-year post-secondary degree.⁵⁹ Perhaps even more disturbing, however, is the fact that many working-age adults are neither enrolled in secondary education nor gainfully employed. Due to the "Great Recession," the percentage of young adults in the work force is at the lowest level since the government started collecting such data at the end of World War II.⁶⁰ At the close of 2011, barely half of young people between the ages of eighteen and twenty-four were gainfully employed.⁶¹ In addition, the gap between employed

55 Duncan, *supra* note 43.

56 *Special Analyses*, NAT. CTR. FOR HIGHER EDUC. MGMT. SYS., <http://www.higheredinfo.org/analyses/> (scroll down and follow link to "Student Pipeline Data and Calculations – by State – 2000").

57 See generally CLAUDIA GOLDEN & LAWRENCE KATZ, *THE RACE BETWEEN EDUCATION AND TECHNOLOGY* 12–43 (2008) (tracing the importance of education to labor market improvements).

58 See ANTHONY P. CARNEVALE ET AL., GEORGETOWN UNIV., CTR. FOR EDUC. & THE WORKFORCE, *HELP WANTED: PROJECTIONS OF JOBS AND EDUCATION REQUIREMENTS THROUGH 2018*, at 4 (2010) available at <http://cew.georgetown.edu/jobs2018/> (follow "Read the Full Report" hyperlink).

59 See SANDY BAUM ET AL., *EDUCATION PAYS 2010* (2007).

60 ANDREW SUM ET AL., *VANISHING WORK AMONG U.S. TEENS 2000–10* 1 (2010) (noting the remarkable and continuous drop in teen employment over the last decade). Indeed, in June 2010, the teen employment rate was below thirty percent, and at its lowest point since World War II. *Id.* Even increased numbers of young adults attending college does not explain the low employment rate. See PEW RES. CTR., *YOUNG, UNDEREMPLOYED, AND OPTIMISTIC* 3 (2011).

61 PEW RES. CTR., *supra* note 60, at 1.

young adults⁶² and all working-age adults was fifteen percentage points, which is the largest such recorded gap in history.⁶³

B. Status of Underserved Populations

Such education and employment statistics are especially egregious for low-income students and students of color. Fifty percent of all African American, Latino, and Native American students will not complete high school. Only seventeen percent of all African American school children will attend college.⁶⁴ Only nine percent of older, low-income African American teens and fifteen percent of low-income Latino teens are employed.⁶⁵ By comparison, white teenagers from middle- and upper-income families are four times more likely to be working than low-income African American teenagers.⁶⁶ Such employment brings benefits beyond a paycheck. Working teenagers gain access to networks, contacts, and experience, thus providing increased opportunities for educational and economic advancement. Thus, low-income students and students of color are doubly disadvantaged. They are less likely to have access to economic opportunity through post-secondary education or through the networks associated with any form of access to the labor market.

Continued racial, ethnic, and income disparities in education suggest that those at the bottom of the economic ladder deserve particular attention when considering the impact of vocational educational policies. These students and low-wage workers are the proverbial canaries in the coal mine. Their lack of access to increased economic opportunities portends a larger negative impact on economic opportunity for the labor force as a whole. Today, forty-two percent of children in the United States live in low-income families.⁶⁷ In less than two decades, ethnic minorities will likely become the

62 *Id.* Here, the study defines young adults as those between the ages of eighteen and twenty-four, and all working-age adults as those between eighteen and sixty-four. *Id.*

63 *Id.*

64 NAACP LEGAL DEF. & EDUC. FUND, INC., CLOSING THE GAP 4 (2005), available at http://www.naacpldf.org/content/pdf/gap/Closing_the_Gap_-_Moving_from_Rhetoric_to_Reality.pdf.

65 Duncan, *supra* note 43.

66 *Id.*

67 SEBASTIAN CASTRECHINI & REBECCA A. LONDON, CTR. FOR AM. PROGRESS, POSITIVE STUDENT OUTCOMES IN COMMUNITY SCHOOLS 1 (2012), available at http://www.americanprogress.org/issues/2012/02/pdf/positive_student_outcomes.pdf.

majority of school-aged children.⁶⁸ In light of these realities, it is particularly important to investigate multiple differential learning solutions to address these existing educational and attendant economic disparities among low-income and minority populations. Such disparities are particularly troubling when one considers the recent call of President Barack Obama that the United States will soon lead the world in college graduations.⁶⁹ Currently, the United States ranks fifteenth among twenty-nine countries in college completion.⁷⁰ President Obama has pledged that the nation will increase the number of college graduates by five million by the year 2020.⁷¹ Such a goal seems nearly insurmountable in the face of current statistics on educational attainment.

In essence, such statistics on educational and economic disparities demonstrate that high school dropout rates are not simply the result of poor choices. Rather, disparities indicate fundamental structural inequities in our current educational system. It is imperative that we acknowledge such disparities without stereotyping the potential solutions. Historically, curricular tracking systems capitalized on and further entrenched existing racial caste systems. Any contemporary examination of the potential of vocational education must first address existing deficiencies, both in academic and career achievement and in traditional models of vocational instruction. Such deficiencies help inform the potential for advancement in the coming decades. In suggesting a renewed focus on multiple forms of learning such as career and technical education, these multi-modal programs may maximize human capital by providing access to education, networks, and skills for high-growth and higher wage employment.

C. *Implications for Workforce Preparedness and Vocational Education*

At a time when too few American schoolchildren obtain a high school degree, our rapidly changing economy proves that post-secondary education and training are critical to economic survival. Accord-

68 GARY ORFIELD & CHUNGMEI LEE, *HISTORIC REVERSALS, ACCELERATING RESEGREGATION, AND THE NEED FOR NEW INTEGRATION STRATEGIES* 4 (2007).

69 See Scott Bland, *Obama Aims to Lift College Graduation Rates, But His Tools Are Few*, CHRISTIAN SCI. MONITOR (Aug. 9, 2010), <http://www.csmonitor.com/USA/Education/2010/0809/Obama-aims-to-lift-college-graduation-rates-but-his-tools-are-few>. Currently, the United States ranks twelfth of the thirty-six countries surveyed in workers aged twenty-five to thirty-four with associate's degrees. *Id.*

70 NAT'L CTR. FOR PUB. POL'Y & HIGHER EDUC., *supra* note 52, at 5.

71 President Barack Obama, Remarks by the President on the American Graduation Initiative (Jul. 14, 2009), *available at* http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-on-the-American-Graduation-Initiative-in-Warren-MI.

ing to one Georgetown University study, from 2008 to 2018, it is likely that two-thirds of employment openings in the United States will require at least some post-secondary education and training.⁷² The swiftly increasing need for a more educated and skilled workforce exacerbates earning disparities between those with and without post-secondary education and training. As a consequence, the United States is now a world leader in income inequality.⁷³ The noteworthy aspect of the rising income inequality is that data suggests some answers may lie in the provision of more diverse learning opportunities for students beyond the traditional four year degree. Not all new jobs in the coming years may require a four-year degree; rather, up to fourteen million of the openings may likely be in “middle-skill occupations.” Such jobs require either an associate’s degree or occupational certificate.⁷⁴

Part of the reason for the current educational and employment crisis may be that schools adequately provide the necessary skill set to succeed *neither* in the rapidly changing economy and labor market *nor* in today’s institutions of higher education.⁷⁵ According to one study, only twenty-five to thirty-five percent of students graduate from high school prepared for college.⁷⁶ In addition, a Pew Research Center study found that less than half of those young adults who are employed feel they have the necessary education and training for career advancement.⁷⁷ What skill sets would be most beneficial to such students in maximizing their potential for success in post-secondary education and employment endeavors? In today’s economy, there may be reasons to champion the provision of a common core of skills in addition to academic tools that may prepare students for life-long learning. Such educational programs may come in a number of forms, but more autonomous models of school choice may provide one of the clearest avenues.

72 CARNEVALE ET AL., *supra* note 58, at 8.

73 ANTHONY P. CARNEVALE & STEPHEN J. ROSE, THE UNDEREDUCATED AMERICAN 8 (2011), *available at* <http://cew.georgetown.edu/undereducated>.

74 CARNEVALE ET AL., *supra* note 58, at 26; *see also* HARRY J. HOLZER & ROBERT I. LERMAN, THE WORKFORCE ALLIANCE, AMERICA’S FORGOTTEN MIDDLE SKILL JOBS 12 (2007), *available at* http://www.urban.org/UploadedPdf/411633_forgottenjobs.pdf.

75 CARNEVALE ET AL., *supra* note 58, at 109.

76 *See* ACT, INC., THE CONDITION OF COLLEGE AND CAREER READINESS 1 (2011), *available at* <http://www.act.org/research/policymakers/cccr11/pdf/ConditionofCollegelandCareerReadiness2011.pdf> (noting that only one in four high school graduates met all four college readiness benchmarks).

77 PEW RES. CTR., *supra* note 60, at 3.

III. THE ROLE OF SCHOOL CHOICE IN ADVANCING VOCATIONAL EDUCATION

A. *Evolution and Development of School Choice*

We have a proliferation of choice in schooling today. This is by no means a new theory, but originated more than eighty-five years ago in the Supreme Court's decision in *Pierce v. Society of Sisters*⁷⁸ upholding religious education. Throughout the last half-century, school choice programs have been on a political pendulum, as tools to thwart racial integration,⁷⁹ to foster racial diversity,⁸⁰ and most recently harkening back to economist Milton Friedman's "market forces" philosophy that the use of vouchers and other forms of privatization of school choice may be a panacea for reforming education and increasing academic achievement.⁸¹ A prevailing theory today is that our system of education needs a significant overhaul, and promoting market forces through choice will help stimulate improvement and ensure consumer satisfaction. One positive aspect of choice mechanisms is the emphasis on educational pluralism.⁸² Unfortunately, we have also seen that such choices are never really neutral. Rather, historically geography, race, ethnicity, and socioeconomic standing substantially influence information about and access to such choices. If left unconstrained, school choice has served to entrench segregation and separa-

78 268 U.S. 510 (1925).

79 See CHRISTOPHER BONASTIA, *SOUTHERN STALEMATE* (2012) (describing the stalemate over school desegregation in the wake of *Brown v. Board of Education* whereby the state of Virginia provided tuition grants to white students to attend private schools in lieu of attending racially integrated schools); see also *Green v. Cnty. Sch. Bd.*, 391 U.S. 430 (1968) (holding unanimously that freedom-of-choice plans placed an undue burden on black schoolchildren and were unacceptable where more expedient and effective methods of desegregation were available).

80 See Genevieve Siegel-Hawley & Erica Frankenberg, *Does Law Influence Charter School Diversity? An Analysis of Federal and State Legislation*, 16 MICH. J. RACE & L. 321, 334–36 (2011).

81 See Milton Friedman, *The Role of Government in Education*, in *ECONOMICS AND THE PUBLIC INTEREST* 123–44 (R.A. Solo ed., 1955); Nicole Stelle Garnett, *A Winn for Educational Pluralism*, 121 YALE L.J. ONLINE 31 (2011), <http://www.yalelawjournal.org/images/pdfs/995.pdf> (suggesting that privatization fosters an educational pluralism that will augur academic benefits).

82 See, e.g., *San Antonio Indep. Sch. Dist. v. Rodriguez*, 411 U.S. 1, 50 (1973) ("Pluralism also affords some opportunity for experimentation, innovation, and a healthy competition for educational excellence."); Garnett, *supra* note 81 (discussing benefits of one type of school choice program in fostering educational pluralism); Ericka K. Wilson, *Leveling Localism and Racial Inequality in Education Through the No Child Left Behind Act Public Choice Provision*, 44 U. MICH. J. L. REFORM 625, 639 (2011).

tism in our population along identity lines such as race, gender, class, religion, language, disability, ethnicity, and sex.⁸³ In its best iteration, school choice policies may increase opportunities for innovation and advance educational opportunity.⁸⁴ Such educational innovation may include a focus on both college and career readiness. Yet the potential for such innovation rests on understanding long-standing patterns of racial and socioeconomic inequality in choice programs such that newer choice mechanisms do not repeat these historic faults.

1. Thwarting and Embracing Diversity

While school choice policies have taken many different forms throughout history, their roots date back to Southern resistance to school desegregation. In the wake of the Supreme Court's ruling in *Brown v. Board of Education*⁸⁵ that racial segregation was unconstitutional, several school districts opted to close permanently rather than racially desegregate schools.⁸⁶ State governments provided vouchers to allow white students to attend private schools,⁸⁷ often referred to as segregation academies. The Supreme Court eventually deemed such schools unconstitutional in *Griffin v. County School Board*.⁸⁸

In addition to the early introduction of vouchers as a method of perpetuating school segregation, many districts employed so-called "freedom of choice" plans to nominally comply with the Supreme Court's desegregation ruling. African American students had the option to "choose" to attend all-white schools, amid staunch opposition and outright violence. For years, such plans effectively limited the extent of desegregation. Finally in 1968, the Supreme Court ruled

83 See generally Minow, *supra* note 5 (arguing that school choice policies appeal to tenets such as individual and religious freedom, market competition, and ideological neutrality, but can enable new forms of segmentation that obscure equal educational opportunity). See also Frankenberg, *supra* note 5.

84 See generally KAHLBERG & POTTER, *supra* note 6.

85 347 U.S. 483 (1954).

86 See, e.g., *Griffin v. Cnty. Sch. Bd.*, 377 U.S. 218, 222–23 (1964) (noting that "Prince Edward County's schools did not reopen in the fall of 1959 and have remained closed ever since"); Donald P. Baker, *Fifty Years Ago in Virginia Integration Came Down to This: After Blacks Walked Out of Their Segregated Schools, Whites Shut Down the System for Five Years*, WASH. POST MAG., Mar. 4, 2001, at W8.

87 In Prince Edward County, Virginia, for example, the county board of supervisors passed an ordinance providing tuition grants funded with public dollars to enable white students to attend private academies funded by publicly funded private foundations. *Griffin*, 377 U.S. at 222–23; see also Verna L. Williams, *Reading, Writing, and Reparations: Systemic Reform of Public Schools as a Matter of Justice*, 11 MICH. J. RACE & L. 419, 437–38 (2006) (discussing the Prince Edward County School Board).

88 *Griffin*, 377 U.S. at 231.

such policies “simply. . . burden children and their parents with a responsibility [that should be] placed squarely on the School Board.”⁸⁹ Prior to the Supreme Court declaring such plans unconstitutional forms of evading desegregation, eighty-five percent of the county’s African American students still attended entirely segregated schools, and no white students had voluntarily enrolled in those segregated schools.⁹⁰

Other forms of choice developed in the 1970s and 1980s that sought to foster racial diversity and increase equal educational opportunity in schools in the face of changing demographic patterns and white flight from cities. The goals of such choice programs were to retain middle-class white and African American families in cities, to increase racial and socioeconomic integration, and to ensure a strong tax base in urban areas. Programs such as controlled choice became more popular, where school districts allow parents to rank school choices and districts incorporate those choices into their final decision, also combining goals of racial and socioeconomic diversity, geographic proximity, and limiting overcrowding.⁹¹ Similarly, majority-to-minority transfer programs allow voluntary student transfers if such transfers would increase the racial diversity of a school. While these programs originated in Northern cities, they were frequently used to desegregate Southern schools.⁹²

The largest and most enduring school choice program in the nation is the magnet school program. A compromise between open school choice and mandatory desegregation policies, magnet programs developed in the 1970s and provided innovative curricula and specialized themes, including career themes, to help districts achieve desegregation goals.⁹³ Originally, many districts implemented mag-

89 *Green v. Cnty. Sch. Bd.*, 391 U.S. 430, 441–42 (1968).

90 *Id.* at 432–35 (noting similar patterns across the South); see also Goodwin Liu & William L. Taylor, *School Choice to Achieve Desegregation*, 74 *FORDHAM L. REV.* 791, 793–94 (2005) (noting that whites chose almost exclusively to attend the segregated schools they had been attending and blacks who thought about choosing a formerly white school often faced the prospect of white hostility, economic and physical retaliation, and harassment).

91 Richard D. Kahlenberg, *Equitable Public School Choice*, in *PUBLIC SCHOOL CHOICE VS. PRIVATE SCHOOL VOUCHERS* 137–52 (Richard D. Kahlenberg ed., 2003).

92 *SCHOOL DESEGREGATION IN THE TWENTY-FIRST CENTURY* 45–46 (Christine Rossell et al. eds., 2002).

93 See generally ERICA FRANKENBERG & GENEVIEVE SIEGEL-HAWLEY, *THE CIVIL RIGHTS PROJECT, THE FORGOTTEN CHOICE: RETHINKING MAGNET SCHOOLS IN A CHANGING LANDSCAPE* (2008) (describing magnet schools as representing a compromise between individualism, in choosing one’s school, and achieving community goals, in fostering diversity).

net schools as a method to achieve desegregation, often due to a court order. As such, the programs included mechanisms to ensure the schools garnered the most diversity in the midst of persistent racial, spatial, and socioeconomic segregation. Congress initiated a federal grant called the Magnet Schools Assistance Program in 1976⁹⁴ at the same time courts recognized the benefits of such programs as a method to desegregate schools.⁹⁵ Generally, such schools were located in low-income neighborhoods, or neighborhoods with a high concentration of families of color. Using unique curricula and programs, the schools attracted students from outside the neighborhood lines. In the ensuing decades, magnet programs gained popularity. According to the United States Department of Education, more than half of all large urban school systems in 2002 used magnet schools as a method to achieve desegregation.⁹⁶ Research has shown significant academic gains for children who attend magnet schools, even beyond those students in traditional public high schools, private schools, or Catholic schools.⁹⁷

2. The Allure of Market Forces

Just one year after *Brown*, economist Milton Friedman espoused a now famous model for education reform, which called for privatization of public education.⁹⁸ Friedman theorized that public funding for voluntary enrollment in private or parochial schools would encourage educational pluralism. By providing better educational opportunities, Friedman argued that such schools allowed parents to find the best option for their child.⁹⁹ Today, scholars and advocates further Friedman's theory by suggesting that private market forces help schools to compete for the best students.

While magnet schools continue to comprise the largest system of choice in United States schools,¹⁰⁰ today the locus of political and

94 Extension and Revision of the Emergency School Aid Act, Pub. L. No. 94-482, §321 (adding 20 U.S.C. §§ 160(a)(13)–(15)) (1976).

95 See *Morgan v. Kerrigan*, 401 F. Supp. 216, 235 (D. Mass. 1975).

96 Ellen Goldring & Claire Smrekar, *Magnet Schools: Reform and Race in Urban Education*, 76 THE CLEARING HOUSE: A J. OF EDUC. STRATEGIES, ISSUES, & IDEAS 1, 13 (2002).

97 GENEVIEVE SIEGEL-HAWLEY & ERICA FRANKENBERG, THE CIVIL RIGHTS PROJECT, REVIVING MAGNET SCHOOLS: STRENGTHENING A SUCCESSFUL CHOICE OPTION 8 (2012).

98 Friedman, *supra* note 81.

99 *Id.*

100 SIEGEL-HAWLEY & FRANKENBERG, *supra* note 97, at 9 (noting magnet schools enrolled more than twice the number of students served by charter schools). As of 2009, charter schools served approximately 1.4 million students. STANFORD UNIV.

financial support falls more heavily on the fast growing charter school movement. Charter schools are public but provide more autonomy than traditional public schools, and are largely located in urban areas.¹⁰¹ In the past three presidential administrations, charter schools received far more resources for expansion than magnet schools.¹⁰² Charter schools have become increasingly popular as reformers look to ways to raise academic achievement. In the absence of strong educational policy to combat complex, long-standing educational and economic disparities, many education advocates viewed charter schools and other market-driven policies like vouchers as solutions to crumbling urban schools. While only a few cities continue to use vouchers, such as Cleveland and Milwaukee,¹⁰³ charter schools have gained in prominence. This is true even in the face of conflicting data as to the success of charter schools in raising academic achievement.¹⁰⁴ The allure of charter schools is that with increased autonomy, such schools can organize around their own curricular focus and design. Arguably, such autonomy also makes charter schools strong environments for career and technical education.

B. *Voluntary vs. Mandatory Vocational Education*

While historic vocational education programs have suffered some criticism, recent efforts offer insights into the potential for the devel-

CTR. FOR RES. ON EDUC. OUTCOMES, *MULTIPLE CHOICE: CHARTER SCHOOL PERFORMANCE IN 16 STATES 6* (2009), available at http://credo.stanford.edu/reports/multiple_choice_cred.pdf.

101 RYAN, *supra* note 5, at 9.

102 *Id.* at 5–6 (citing Ericka Frankenberg & Genevieve Siegel-Hawley, *Choosing Diversity: School Choice and Racial Integration in the Age of Obama*, 6 STAN. J. C.R. & C.L. 219, 252 (2011)). In 1997, President Clinton called for the creation of 3000 new charter schools. President George W. Bush called for \$200 million in funding for charter schools. In 2009, President Obama emphasized the creation of charter schools in his historic “Race to the Top” legislation, and as a method of “turning around” failing schools. See CHARTER SCHOOLS PROGRAM, U.S. DEP’T. OF EDUC., <http://www2.ed.gov/programs/charter/index.html> (last visited Mar. 2, 2011); Press Release, U.S. Dep’t of Educ., Obama Administration Announces Historic Opportunity to Turn Around Nation’s Lowest-Achieving Public Schools (Aug. 26, 2009), <http://www2.ed.gov/news/pressreleases/2009/08/08262009.html>.

103 See Sean F. Reardon & John T. Yun, *Private School Racial Enrollments and Segregation*, in PUBLIC SCHOOL CHOICE VS. PRIVATE CHOICE VOUCHERS (Richard D. Kahlenberg ed., 2002) (noting that private schools “provide education for only a small minority of American students”).

104 See, e.g., STANFORD UNIV. CTR. FOR RES. ON EDUC. OUTCOMES, *supra* note 100 (surveying the nation’s several thousand charter schools, finding a wide variance in the quality of the schools with students in the aggregate fairing less well than their peers in traditional public schools).

opment of more marketable skills that may translate into increased educational and employment outcomes for at-risk students.¹⁰⁵ Some of the historic disapproval of vocational education stemmed from the well-founded belief that low-achieving students were tracked into vocational educational classes in lieu of college preparatory courses. One of the critical distinctions between historic vocational educational programs and more current forms of career and technical education is the introduction of an element of choice. Rather than school districts tracking students into vocational curricula that rob them of the opportunity for higher education or alternate forms of learning, students today may choose to take occupational courses of their own volition. Currently, more than ninety percent of high school graduates take at least one occupational course.¹⁰⁶ In addition, four out of ten take at least three full-year courses.¹⁰⁷ In total, more than fifteen million high school and post-secondary students are enrolled in career and technical education courses,¹⁰⁸ and approximately one-fourth of all high school seniors are vocational “concentrators” who earn at least three credits in a single vocational area.¹⁰⁹

With the rise in school choice, students have even greater opportunities for an education that includes skills-based learning. These voluntary vocational education mechanisms appear to yield significant success. More than fifty percent of high school graduates who participate in career and technical education today continue to some form of post-secondary education.¹¹⁰ While it is true that lower-achieving students remain more likely to concentrate in vocational education than high-achieving students, by 2000, fifteen percent of all high-achieving high school seniors concentrated in vocational education.¹¹¹

105 See *infra* Part IV.

106 KAREN LEVESQUE ET AL., NAT’L CTR. FOR EDUC. STATISTICS, CAREER AND TECHNICAL EDUCATION IN THE UNITED STATES: 1990 TO 2005, at 26 (2008), available at <http://nces.ed.gov/pubs2008/2008035.pdf>.

107 *Id.*

108 Duncan, *supra* note 43.

109 Hoachlander, *supra* note 44 (citing National Assessment of Vocational Education Report examining the effectiveness of career and technical education from 1995 to 2005).

110 *Id.*

111 *Id.* High achieving students included those students with a grade point average of 3.5 or above. *Id.*

C. *More Promising School Choice Models*

The aforementioned discussion of choice programs used in the past several decades highlights the various ways such programs can increase equal educational opportunity and educational pluralism. If used thoughtfully, school choice mechanisms can be beneficial vehicles for educational innovation. Yet, the previous section also highlights the ways in which such mechanisms can entrench existing segmentation. Ultimately, the issue becomes how the choice program is structured, and whether that structure affords the most access and opportunity possible.

Such choice mechanisms may be particularly promising when stimulating the development of specialized schools that maximize vulnerable students' opportunities for educational and economic advancement. In an age where school segregation is on the rise,¹¹² and where such segregation occurs largely between school districts rather than within a single district,¹¹³ choice policies can provide critical avenues for fostering both inclusion¹¹⁴ and innovation. To ensure such programs provide true choice to all students, including at-risk students in the most underserved populations, special attention must be given to ensuring *access* to choice. In many instances, this is tied to funding. Ensuring access to choice includes increasing awareness of choice programs by targeting outreach to communities that may lack access to mainstream informational networks. In addition, transportation becomes particularly important for students whose families may not have the means to travel to a choice program outside their neighborhood. Finally, choice programs that utilize non-competitive enrollment such as lotteries, interviews, or open enrollment may help to ensure that choice is truly open to all.

Both magnet programs and charter schools offer choice mechanisms that incorporate some form of vocational education. As discussed in Part IV, some of the most successful career and technical education programs today are structured as charter schools.¹¹⁵ In addition, a 2011 survey of magnet schools found that more than half used federal funding from the Magnet Schools Assistance Program to expand career-related program options in their schools.¹¹⁶ Federal funding for magnet schools has been shown to foster sustainable pro-

112 ORFIELD & LEE, *supra* note 68, at 4.

113 See SIEGEL-HAWLEY & FRANKENBERG, *supra* note 97, at 15.

114 See James E. Ryan, *Schools, Race, and Money*, 109 YALE L. J. 249, 311–12 (1999).

115 See *infra* Part IV.

116 SIEGEL-HAWLEY & FRANKENBERG, *supra* note 97, at 19.

grams as well; that is, even in the wake of federal funding, these programs continue to flourish and succeed.¹¹⁷

IV. REIMAGINING THE ROLE OF CAREER AND TECHNICAL EDUCATION FOR TWENTY-FIRST CENTURY NEEDS

If sound reasons exist for a continued commitment to educational avenues that prepare students for post-secondary education as well as employment, and if such programs may be smartly developed using school choice, how might such programs offer the strongest chances for success? Some of the more popular forms of career and technical education include smaller specialized schools within schools, such as Career Academies; industry specific models that may focus on a field such as engineering, health care, or finance; and a number of models that have shown success in Europe.¹¹⁸ In each instance, existing choice mechanisms such as charter schools and magnet programs can provide helpful vehicles for promoting vocational education.

One such example is Career Academies, a widely adopted secondary education reform that combines academics and career-development opportunities.¹¹⁹ While becoming increasingly popular, the Academies originated nearly forty years ago, and are designed to increase student performance while also providing additional avenues for post-secondary education and employment. Typically, such Academies are smaller learning communities, with no more than 200 students. The curriculum may be centered on a career theme such as technology, finance, or health care, and feature education-employer partnerships to encourage work-based learning opportunities.¹²⁰ While scattered throughout the nation, Career Academies are mostly located in medium and large urban school districts and can be either single programs or multiple programs within a larger high school.¹²¹ Currently, Career Academies disproportionately serve Latino and African American students.¹²²

117 *See id.* at 20.

118 High-achieving Finland, for example, offers many educational pathways for advancement, including tracks for work and college. Thomas, *Several Lessons from the Finnish School System*, OPEN EDUC. BLOG, <http://www.openeducation.net/2008/03/10/several-lessons-to-be-learned-from-the-finnish-school-system/>.

119 JAMES J. KEMPLE, MDRC, CAREER ACADEMIES iii (2008), *available at* <http://www.mdrc.org/publications/482/full.pdf>.

120 *Id.* at 16.

121 *Id.* at 1.

122 *Id.* at 2.

A long-term study of Career Academies across the nation showed that such programs have had substantial success in raising post-secondary employment and education. Students who participated in these Career Academies had significantly higher earnings four years after their expected graduation date than non-Academy peers.¹²³ Young men, a group that has experienced declining employment and earnings potential in the last two decades, saw the largest gains in earnings with participation in the Career Academies.¹²⁴ Ultimately, more than eighty percent of Academy students earned a high school diploma and more than half either completed or were still enrolled in a post-secondary education program.¹²⁵

While there are fewer than 3000 Career Academies currently in operation, Academies have had success in a number of states. In California, for example, more than 500 Career Academies operate via a program called the Linked Learning Initiative.¹²⁶ While still a small effort, the California legislature has required the state to study the feasibility of expansion.¹²⁷

In addition to these Career Academies, other districts are utilizing similar school choice mechanisms to incorporate career and technical learning with traditional academic programs and have achieved marked success. Under the leadership of now U.S. Secretary of Education Arne Duncan, Chicago Public Schools established a citywide admissions policy for vocational education programs. Drawing on the notion that choice programs can foster equity, excellence, and innovation simultaneously, this program draws students from a broad region. Most of the enrolled students in these programs now come from outside the geographic area.¹²⁸

A focus on improving career and technical education through choice options necessitates eliminating some of the ill-equipped vestiges of earlier days of vocational education. At the same time the Chicago Public School District introduced new programs, it closed fifty low-performing vocational education programs.¹²⁹ This overhaul

123 *Id.* (noting students in the Academy group earned on average eleven percent more per year than other students).

124 *Id.* at iii.

125 *Id.* at 31.

126 *See id.* at iii (noting that there are more than 2500 Career Academies in operation nationwide); NANCY ADELMAN ET AL., JAMES IRVINE FOUNDATION, EVALUATION OF THE CALIFORNIA LINKED LEARNING INITIATIVE 4 (2012) (documenting that over 115,000 students have participated in the California Linked Learning Initiative).

127 A.B. 790, 2011-12 Leg., Reg. Sess. (Cal. 2011) (clarifying the state legislature's intent to expand linked learning opportunities).

128 Duncan, *supra* note 43.

129 *Id.*

included using Federal Perkins funding to improve facilities and develop standardized curricula that integrated academics and career skills while aligning with post-secondary education and employment standards. Such curricula included early childhood education, broadcast technology, and game programming. In addition, the Chicago model included more detailed assessment measures to ensure students gained skills necessary for employment.¹³⁰

Ultimately, the Chicago program nearly tripled the number of industry certifications vocational education students earned from 2008 to 2010.¹³¹ The program increased citywide internships, as well as the number of eligible programs that offered certification. In addition, students enrolled in the career and educational programs in Chicago are more likely to have enrolled in college and be employed than their peers who did not take such classes.¹³²

A final promising example is the statewide network of vocational education programs in Massachusetts. The Massachusetts model includes a statewide network of regional vocational and technical high schools, which serve students from a number of school districts.¹³³ The program combines equal parts career and academic instruction. The Massachusetts vocational schools have a lower dropout rate than the state average.¹³⁴ In addition, more than half of the graduates of such programs gain post-secondary education. More than ninety-five percent of the students passed the state's rigorous high-stakes graduation test.¹³⁵

These examples provide a perspective that workforce preparedness remains a vital part of educational innovation. For those students who are most at risk of falling through the cracks, whether due to racial, spatial, ethnic, or economic inequities, or due to differential learning experiences, such programs offer insight into distinct methods for student retention. Due to the proliferation of choice programs, the current culture of choice and educational pluralism provides fertile ground for examining possibilities for program replication and expansion.

130 *Id.*

131 *Id.*

132 *Id.*

133 ALISON L. FRASER, PIONEER INST., VOCATIONAL-TECHNICAL EDUCATION IN MASSACHUSETTS 1 (2008), available at <http://www.pioneerinstitute.org/pdf/wp42.pdf>.

134 *Id.*

135 *Id.* at 6.

V. NORMATIVE IMPLICATIONS FOR THE MOST VULNERABLE POPULATIONS

The history and current manifestations of vocational education and school choice reveal a checkered past of racial and economic segregation in educational and labor market opportunities. Yet, there is also hope that a renewed and reimagined focus on career and technical education may be one avenue for addressing persistent educational and economic obstacles for the nation's underserved populations. As the previous sections of this Essay demonstrate, the proliferation of school choice mechanisms may be a boon for educational programs that incorporate academic and workforce preparation instruction if developed with a conscious focus on increasing access for all students. Perhaps the area for the largest potential advancement is in encouraging at-risk youth to remain in school, to seek post-secondary education, and to increase post-secondary earnings and employment.

What might these factors portend for furthering such innovations? In particular, might there be avenues for increased governmental support of such innovations? The greatest opportunity for advancement may be in federal encouragement of regional innovations in four key areas: (1) increasing access to school choice programs that focus on career and technical education; (2) incentivizing school choice that fosters diversity rather than entrenching racial, socioeconomic, and labor market separation; (3) funding research for the measurement and replication of successful voluntary vocational education programs; and (4) consciously coupling such vocational education with college readiness.

As discussed, one of the largest issues includes increasing true access to school choice such that the most underserved populations are afforded the necessary information, funding, and opportunities to take advantage of the educational pluralism offered via school choice. In addition, while magnet programs are longstanding choice measures designed to increase educational pluralism and foster racial and socioeconomic integration, recent data suggests the majority of existing charter school programs may reinforce existing racial and socioeconomic isolation.¹³⁶ Moreover, some current examples of programs that successfully couple school choice with career and technical education, such as the Career Academies, serve largely minority populations.¹³⁷ Thus, the best examples of voluntary career readiness pro-

¹³⁶ Frankenberg, *supra* note 5.

¹³⁷ KEMPLE, *supra* note 119, at 2 (noting that Career Academies disproportionately serve African American and Latino populations).

grams in schools may be those that are specifically designed to alleviate entrenched segregation by incentivizing outreach and access to vocational education by diverse populations. Such measures may include widening the geographic reach of the program to foster participation by more diverse communities and providing free transportation.

Further, federal encouragement of regional innovation may include funding research to better understand how to develop, sustain, measure, and maximize the efficiency of such programs. Current career and technical education policies provide limited mechanisms by which policymakers and educational advocates can measure the effectiveness of any emphasis on academic achievement in these programs. In addition, such programs still suffer from self-selection and are on a scale so small they may not be replicable. As presently structured, most vocational education programs lack a sufficient emphasis on curricular design to ensure that such programs are training students to be ready for high-growth industries as well as traditional post-secondary education. Moreover, vocational educational programs may need additional professional support systems to give students the kind of support that would maximize their educational experience, such as guidance in securing more high-growth, high-wage employment.¹³⁸

Finally, the mission of vocational education should require that students earn some form of a post-secondary degree or industry-recognized certification, thereby maximizing economic opportunity. Federal policies should couple college- and career-readiness more explicitly. For example, with the rise in emphasis on common core standards,¹³⁹ the standards should also include skills necessary for employment, such as critical thinking and problem-solving skills, ensuring an ability to synthesize information, communicate effectively, and work well collectively.¹⁴⁰ In addition, given the rising importance of “middle-skills” jobs, it is imperative that vocational skills match this form of job growth that requires some post-secondary education but may not require a four-year degree. All such improvements can benefit from “federally encouraged” educational innovation. Federal funding may be best used to drive state and local vocational educational policies and programs. This will allow local and state experts

138 See ASS'N FOR CAREER & TECHNICAL EDUC., CAREER AND TECHNICAL EDUCATION'S ROLE IN CAREER GUIDANCE (2008); Thomas Brock, *Young Adults and Higher Education*, in TRANSITION TO ADULTHOOD (Woodrow Wilson Sch. & Brookings Instit. eds., 2010).

139 See Fernanda Santos, *A Trial Run for School Standards that Encourage Deeper Thought*, N.Y. TIMES, Apr. 25, 2011, at A1.

140 See Duncan, *supra* note 43.

and employers to have more involvement and engagement in program design and credential development.¹⁴¹

With the ensuing reauthorization of the Carl D. Perkins Act, the time is ripe to consider the policy imperatives of this program. Ultimately, scholars, policymakers, and educational advocates must determine whether to support the proliferation of career and technical education programs through choice mechanisms, with the knowledge that they bear both significant success and persistent pitfalls. While it is clear such programs inure benefits, such as diversifying learning options and environments and increasing avenues for at-risk youth to succeed in the labor market, such programs may not boost overall academic achievement in the same way as programs more directly focused on college preparedness. Yet, the resulting employment gains are important, even for students in college who may need to work simultaneously.

The reality is that such an emphasis on vocational education may still be a boon to only a portion of today's student population. Nonetheless, it is imperative that we find solutions for youth at the bottom of the economic ladder, for they are the canaries in the coalmine. At a time when Congress is due to reexamine the existing career and technical education legislation, considering possible avenues for improvement makes sense. By increasing the national investment in human social capital to better prepare underserved populations, we are strengthening our citizenry for future generations.

CONCLUSION

Education is touted as the gateway to life opportunity. Yet to find solutions to the complex, entrenched educational and economic disparities existing in our nation, it is imperative that we pay particular attention to the most underserved and vulnerable student and working populations. Those populations reside at the bottom of the economic ladder, and many have found themselves there due to systemic racial, demographic, socioeconomic and spatial inequities. These forgotten students are at risk for dropping out of high school and are faced with limited economic options. Despite workforce preparation

141 One interesting example of federal funding for local innovation in this realm is the Fast Track to College Act introduced in 2009 by Senator Herb Kohl and Representative Dale Kildee. This legislation would support dual enrollment programs, or "early college" high schools, that allow secondary school students to earn credit simultaneously toward a secondary school diploma and a post-secondary degree or credential. See *Kildee, Kohl Introduce Fast Track to College Act*, available at http://www.kohl.senate.gov/newsroom/pressrelease.cfm?customel_dataPageID_1464=2427.

being a critical component of school success, strategies to improve workforce preparation are not an integral part of the education reform dialogue or legislative action. Yet perhaps they should be brought back into the fold. While historic efforts to provide vocational education further entrenched existing racial, gender, and socioeconomic stratification, current school choice mechanisms offer the potential for more effective, egalitarian, and pioneering vocational education models. With the advent of voluntary policies encouraging increased student access to, and federal funding for, curricular innovation, vocational education may be more promising than in previous incarnations that segmented students based on race, gender, and socioeconomic status.

Combining high-quality career and technical education with academic skills generates numerous and varied pathways for secondary and post-secondary educational and economic advancement. Recent studies suggest that such programs provide a successful route to increased employment and earnings, and more sustained participation in secondary and post-secondary education. One of the critical avenues to maximize such benefits may be in ensuring that school choice mechanisms can be used to foster the most successful aspects of vocational education while ensuring that students in the most vulnerable populations have quality information about and access to the wealth of school choices available.