UCLA's Institute for Democracy, Education, & Access
Multiple Perspectives on Multiple Pathways Series
(University of California, Los Angeles)

Year 2007 *Paper mp-rr011-0207*

Multiple Pathways, Vocational Education, and the "Future of Democracy"

John S. Rogers
UCLA

Joseph Kahne
Mills College

Ellen Middaugh
University of California, Berkeley

This paper is posted at the eScholarship Repository, University of California.
http://repositories.cdlib.org/idea/mp/mp-rr011-0207
Copyright ©2007 by the authors.

Multiple Pathways, Vocational Education, and the "Future of Democracy"

Abstract

This paper argues that, while contemporary advocates of Multiple Pathways address some important concerns with equity, they do not attend sufficiently to the quality of civic life that the civic role of schooling promotes. Such attention is critical to the future of democracy. Recent scholarship on civic education suggests that unless high schools move proactively to assure a robust program in civic education, students will not develop essential civic skills.

Educators and policy makers interested in providing Multiple Pathways through high school today can learn much from John Dewey's contribution to the public debate on vocational education between 1913 and 1917. Dewey sought to focus the public's attention on education's civic role—on preparing students for public deliberation, communal problem solving, and joint action to advance the common good. He argued that, in formulating the relationship between so-called "vocational" and "academic" education, the primary consideration must be the democratic goals of schooling.

Dewey pointed to the importance of treating work and the broader political economy as subjects for study. He called for students to examine opportunities for workers to utilize intelligence and make decisions within the workplace. Dewey wanted students to use the methods of social science inquiry to explore the cause and effect of economic and social problems as well as how these problems can be addressed. Such engaged study, he reasoned, would provide young people with the skills and commitments necessary to press for democracy in the workplace, the political sphere, and in broader social relations.

Dewey's vision of democratic vocational education provides several important lessons for educators considering whether or how to link academic and career education today. For example, schools should highlight socially useful work that builds community; explore the meaning of democratic decision-making across public and private institutions; and promote inquiry into whether different worksites advance these goals. Such an infusion of democratic education within a Multiple Pathways approach, we conclude, will enable students to acquire civic knowledge and forge democratic commitments.

MULTIPLE PERSPECTIVES ON MULTIPLE PATHWAYS

Preparing California's Youth
for College, Career, and
Civic Responsibility

Multiple Pathways, Vocational Education, and the "Future of Democracy"

JOHN ROGERS
UCLA

JOSEPH KAHNE
Mills College

ELLEN MIDDAUGH
UC Berkeley

Multiple Pathways, Vocational Education, and the "Future of Democracy"

John Rogers, UCLA
Joseph Kahne, Mills College
Ellen Middaugh, UC Berkeley

> The kindred question of industrial education is fraught with consequences for the *future of democracy*. Its right development will do more to make public education truly democratic than any other one agency now under consideration. Its wrong treatment will as surely accentuate all undemocratic tendencies in our present situation, by fostering and strengthening class divisions in school and out.
>
> ---John Dewey, 1913

Educators and policy makers interested in providing Multiple Pathways through high school today can learn much from John Dewey's contribution to the public debate on vocational education between 1913 and 1917. Dewey sought to focus the public's attention on education's civic role—on preparing students for public deliberation, communal problem solving, and joint action to advance the common good. He argued that, in formulating the relationship between so-called "vocational" and "academic" education, the primary consideration must be the democratic goals of schooling. In other words, "vocational" and "academic" are neither competing emphases, nor should either stand alone; rather, they are two goals that together serve greater social, economic, and democratic ends. He reasoned that civic education should not be neglected as reformers reshaped the traditional curriculum. More fundamentally, Dewey held that introducing vocational education offered new and powerful opportunities to advance democracy. His presumption was that the 'right' vocational education would support the development of students into adults who press for democracy in the workplace, the political sphere, and in broader social relations.

This essay looks to Dewey's scholarship on democratic vocational education as a model of how to advance civic skills and commitments in the context of education about careers and the workplace. Dewey pointed to the importance of treating work and the

broader political economy as subjects for study. He called for students to examine opportunities for workers to utilize intelligence and make decisions within the workplace. Dewey wanted students to use the methods of social science inquiry to explore the cause and effect of economic and social problems as well as how these problems can be addressed. Such engaged study, he reasoned, would provide young people with the skills and commitments necessary for active and informed participation in an industrial democracy.

The remainder of this essay explores how the Multiple Pathways approach might be broadened to incorporate Dewey's concern with the democratic aims of education. We begin by comparing historical arguments for vocational education with the contemporary case for Multiple Pathways. We find that prevailing formulations of Multiple Pathways are more attentive to equity than earlier arguments for vocational education. Nonetheless, contemporary advocates of Multiple Pathways do not attend sufficiently to the quality of civic life that the civic role of schooling promotes. We then locate our democratic focus in relationship to the growing public concern with low and uneven levels of youth engagement in civic life. We first review the current state of civic education, which suggests that civic goals cannot be taken for granted; unless high schools move proactively to assure a robust program in civic education, students will not develop essential civic skills. We then turn to Dewey's writing on vocational education to identify how he introduced civic purposes into the debate on vocational education and how he reconceptualized vocational education in light of these purposes. This analysis points to a Deweyan framework for a democratic vocational education that promotes "industrial intelligence" for an "industrial democracy" (Dewey, 1916b). We then

consider what lessons this framework holds for career and civics education. In conclusion, we discuss the possibilities and challenges of reshaping Multiple Pathways in light of democratic purposes.

Historical and Contemporary Debates on Vocational Education

Dewey's focus on the democratic purposes of schooling set him apart from his contemporaries who built the case for vocational education narrowly on economic grounds. Early twentieth century reformers reasoned that the traditional school curriculum was not preparing large segments of America's youth for adult roles in a global economy. The influential Commission on National Aid to Vocational Education warned that "the rising demand for a better product" in both domestic and foreign markets demanded that American labor be "as efficient and as trained as the labor of the countries with which we must compete" (Report of Commission, 1913, p. 123). The commission noted a fundamental mismatch between the labor market demands for skilled artisans and factory workers and the academic programs of traditional high schools that were "largely planned for the few who prepare for college" (p. 124). Posing "learning by doing" as a strategy for re-engaging students, the Commission asserted that vocational education could "attract and hold" the nine out of ten urban students who dropped out of school before graduating (p. 125-6). In this way, vocational education would introduce "the aim of utility to take its place in dignity by the side of culture, and to connect education with life by making it purposeful and useful" (p. 127).

There are striking parallels and important differences between the vocational education debate Dewey entered in 1913 and the discussion of Multiple Pathways today.

Advocates of Multiple Pathways point to the demands of the global economy as evidence that high schools must incorporate career and technical education.[1] "The globalization of business and industry," argues Hans Meeder (2006, p. 5) of the Association for Career and Technical Education, means that "competitor nations are surging forward" in producing more highly educated workers. American school systems thus must provide students with the "core skills" that can be applied in "a wide and rapidly changing variety of work settings" (Meeder, 2006, p. 5). Yet, large numbers of students do not develop such skills in high schools organized by a traditional academic curriculum. In many schools, particularly those serving large numbers of students of color and students from low-income families, students become disengaged from the traditional curriculum, and many drop out of school (Kazis, 2003). The advocates of Multiple Pathways assert that integrating career and technical training into the high school can re-engage students by promoting more active learning and giving students a sense of how their learning is tied to future goals (Meeder, 2006; Brand, 2003).

While current advocates of Multiple Pathways echo some of the early twentieth century arguments, they consciously seek to distance themselves from two key themes of the earlier vocational education reformers. First, advocates of Multiple Pathways reject the view that high school students must choose between a pathway leading directly to work and one leading to college. "The past division between preparation for college and preparation for work," argues Betsy Brand (2003, p. 7) "has become a false dichotomy."

---

[1] Kliebard (1999) argues that this focus on the economic ends of schooling is a direct result of the campaign to expand vocational education in the early 20th century. That is, the early advocates for vocational education succeeded not just in expanding vocational education opportunities, but also in framing the purposes of curriculum in economic terms.

Brand holds that all work has become knowledge work requiring “higher literacy, numeracy, and technical skills” and hence postsecondary education (2003, p.1). Second, and related, advocates of Multiple Pathways posit a different understanding than the early vocational education advocates of what it means for young people to be included in the new economy. Whereas the early advocates for vocational education believed that students with “different tastes and abilities” should follow different pathways into highly differentiated adult roles (Report of Commission, 1913, p. 124), the Multiple Pathways advocates (Brand, 2003; Kazis, 2003; Meeder, 2006) assert that all students should become highly trained knowledge workers In this sense, students could follow Multiple Pathways towards a common goal of college and career training.

	Traditional Approach to Vocational Education	Multiple Pathways Approach	Deweyan Approach
Vocational Education and Academic Curriculum	Dual Curriculum: One track for students on pathways to college; one track for students on direct path to work.	Integrated Curriculum: Students study college prep curricula *and* participate in internships	Unitary Curriculum: Students study the workplace and the broader political economy. Students develop academic, vocational, and civic skills.
School-Based Activities	Routinized skill training in vocational track; humanistic studies in academic track.	Academic lessons applied within context of career themes and work-site internships.	Project-based learning that promotes inquiry in and about the workplace.
Purpose of Education	Schools should prepare some for manual work and some for decision making and professional work.	Schools should prepare all for college and careers in the knowledge-based economy.	Schools should prepare all to be active citizens and change agents in workplace and society.

Silence on the Democratic Purpose of Schooling

Yet, the new inclusiveness of the Multiple Pathways rhetoric does not mean that this approach advances democratic ends. Advocates for Multiple Pathways are largely silent about the democratic purposes of schooling. This is not to say that they reject Dewey's commitment to equality of opportunity. Advocates of Multiple Pathways recognize that the new global economy creates winners and losers based on access to formal education and career training. Their hope is that new educational structures can support more inclusive economic structures by ensuring that all young people have the education necessary for well-paid jobs.

Nonetheless, with the exception of a couple of fleeting references to preparing young people for citizenship, the advocates of Multiple Pathways pay no attention to education's democratic purposes (Brand, 2003, p. ii; Meeder, 2006, p. 24). This inattention suggests that a Multiple Pathways approach might give short shrift to civic education at a time when declining and unequal patterns of civic participation pose a serious threat to multi-racial democracy. Such concerns are heightened by the fact that so much of the rhetoric of career and technical education focuses on the private, rather than public, returns to education.

Further, by not attending to democracy, advocates of Multiple Pathways are left with narrow, instrumental goals as guideposts for integrating academic and career curriculum. The goal of economic inclusion points toward curriculum aimed at developing generic skills (of numeracy, literacy, technology). It does not aim to develop a critical understanding of how these skills fit into a broader social context that, in its way, could be seen as instrumental to the social good. For example, lessons in car

mechanics which are used to teach principles of physics are important and synergistic to students' learning; but students might also benefit from opportunities to discuss policies related to alternative fuels and emission standards or to study the respective roles of the auto industry and the United Auto Workers in shaping the working conditions under which cars are manufactured. Further, the goal of economic inclusion does not shed light on how to prepare young people to be agents of change in the workplace and in the broader public realm. In contrast, Dewey's consideration of democratic ends provides a powerful framework for thinking about how and why schools should incorporate academic and vocational streams (as well as the even more foundational question of what is "academic" and what is "vocational.")

The Need to Attend to Civic Education

Over the last decade, policy makers and scholars in political science and education have renewed attention to the democratic purposes of public education. They highlight the need for youth to understand the purpose and function of government and to develop the skills and commitments needed to participate robustly in electoral politics, public institutions, civic organizations, and (where necessary) protest activities (Niemi and Junn, 1998; Delli-Carpini and Keeter, 1996; Gibson and Levine, 2003). This examination of the "civic mission" of schools reflects growing concerns with the health of American democracy (Gibson and Levine, 2003). A series of reports and scholarly books and articles have described a "crisis" in youth civic engagement (Putnam, 2000; National Secretaries of State, 1999, Galston 2001, Macedo, 2005, Gibson and Levine, 2003). This crisis is characterized by declining youth interest, knowledge, and

participation in formal politics. It is also evidenced in disparate patterns of youth civic engagement across lines of class and race.

The results of a recent study of California high school seniors offer a sobering case in point. In 2005, we surveyed 2,366 graduating seniors who had completed the state-required 12th grade U.S. government course in order to get a clearer sense of student civic capacities and commitments as they reach voting age (Educating for Democracy, 2005). The respondents came from public schools selected from various geographic regions in order to represent a range of factors including student race and ethnicity and school achievement level. We found that a high percentage of the students reported that they intended to vote, but a much smaller percentage said that they were informed enough to vote. Their confidence declined further when they were asked about their knowledge of specific issues: Iraq, the economy, taxes, education, health care, and the like (Educating for Democracy, 2005).

A large number of the high school seniors had difficulty with questions assessing civic content knowledge. Half of the students did not know the function of the Supreme Court, a third could not identify one of their U.S. senators when given a list from which to choose, and almost half could not choose which of the two major political parties is more conservative. Most high school seniors did not recognize a political role for themselves beyond voting. Less than half agreed with the statement: "Being actively involved in state and local issues is my responsibility." This lack of interest may be related to their lack of experience with political action. Fewer than 1 in 10 students reported that they had worked to change a policy or law in their community, state or

nation during high school and only 1 in 3 said that they had worked to change a policy or rule at their school (Educating for Democracy, 2005).

The limited civic capacity and commitment found in California high school seniors reflect downward trends nationally in youth interest and engagement in public life. Whether one considers youth voting rates, engagement in the community or in formal politics, or even interest in discussing political issues, the last several decades have seen steady and sizable declines among youth (Galston, 2001). Voting rates for citizens under age 25 are particularly low relative to the larger U.S. population and relative to youth in other countries. In U.S. presidential elections, for example, youth voting rates have declined steadily from 52% to 37% between 1972 and 2000 (Levine and Lopez, 2002). Youth participation in formal politics also has been declining. The percentage of adolescents who report that they could see themselves working on a political campaign, for example, has dropped by about half between the 1970s and the present (see Macedo, 2005).

There is also evidence that many young people are not prepared for informed and effective civic engagement. For example, college graduates in 1989 did about as well as high school graduates 50 years earlier on 12 survey items that have been used to assess student knowledge of politics since the 1940s[2] (see Delli-Caprini and Keeter, 1996). In addition, on the most recent National Assessment of Educational Progress (NAEP) in Civics, only a quarter of high school students were judged to be proficient and 4 percent scored at the advanced level. A third of all students and over half of non-white students

[2] Their analysis of this data also indicate that the declining impact of educational institutions on student's civic knowledge rather than selection bias (the fact that a much smaller percentage of students went to college in the 1940s and 50s) accounts for this outcome.

did not demonstrate a “basic” level of understanding. In U.S. History, 11 percent scored at the “proficient” or advanced levels (Gibson and Levine, 2003, p. 19).

When scholars speak of the “crisis” in youth civic engagement, they have in mind both the level and distribution of civic capacity and commitment. Young people from low-income families and young people of color do not participate at the same levels as their more affluent and white peers. Cohen and Dawson (1993) show that youth of color who live in areas with high concentrations of poverty are significantly less likely than the general population to belong to civic groups and to have contact with political officials. Verba’s (1995) path-breaking study on civic equality found that lower family income predicted lower levels of voting, campaign work, contact with officials, and political protest. This under-representation in the political process violates the principle of equal representation and skews decision-making in favor of the more affluent. As the American Political Science Task Force on Inequality and American Democracy (2004) reported,

> The privileged participate more than others and are increasingly well organized to press their demands on government. Public officials, in turn, are much more responsive to the privileged than to average citizens and the least affluent. Citizens with low or moderate incomes speak with a whisper that is lost on the ears of inattentive government, while the advantaged roar with the clarity and consistency that policymakers readily heed.

In the face of these critical concerns about the future of American democracy, it is heartening to note a new body of research documenting the positive impact of robust programs in civic education (Gibson and Levine, 2003; Torney-Purta, 2002; Metz and Youniss, 2005; McDevitt and Kiousis, 2004; Kahne, Chi, and Middaugh, 2006; Kahne and Westheimer, 2003). This research demonstrates that civic education opportunities

can promote civic outcomes. William Galston (2004) notes an array of strategies that gain power when used in concert. These include instruction in the history and principles of American democracy; classroom discussion of current events that make a direct and tangible difference in young people's lives; community service, participation in civic organizations that address meaningful issues; and participation in public forums and democratic governance in school and in the larger community (Gibson and Levine, 2003). These strategies appear to make a significant difference in civic outcomes for low-income urban students, particularly because those students are infrequently engaged in the political process (Kahne and Sporte, Forthcoming; Gibson and Levine, 2003).

The survey of California High School seniors described above offers a more detailed picture of how particular civic learning opportunities can promote civic development. In classes where students frequently talked about current events, 61 percent reported they were interested in politics compared to only 32 percent in classes with no discussion of current events. Further, when their government classes emphasized why it is important to be informed and to get involved in political issues, 52 percent of students agreed that they should be actively involved in state and local issues. In classes where "getting involved" was not emphasized, 35 percent agreed (Educating for Democracy, 2005).

Participation in activities inside and outside the classroom also made a difference in civic outcomes. Thirty-six percent of students who frequently took part in role-plays or simulations that modeled democratic processes reported being involved in politics; whereas only 13 percent of the students who had not had these classroom opportunities were involved. Similarly, 54 percent of students who worked on projects with peers

from different backgrounds agreed that being involved in state and local issues was their responsibility compared to 29 percent of the students who did not have this opportunity. Further, students who reported having a chance to voice their opinions about school policies outside of class were more committed to political participation than those who said they had few such opportunities (Educating for Democracy, 2005).

Unfortunately, these promising practices in civic education do not occur often enough. When asked whether they had experienced the sort of instruction described above—instruction that supported the development of committed, informed, and effective citizens—the most common answer from California's high school seniors was "a little" (Educating for Democracy, 2005). A recent study that found 90 percent of U.S. students said they most commonly spent time reading textbooks and doing worksheets (Baldi, et al., 2001). These findings also speak to the enormous pressure on public schools to focus their instructional time narrowly on subject matter for which students and educators will be held responsible in state and federal accountability systems.

Counter pressures make it all the more important for schools to infuse the civic mission across the curriculum. While some aspects of a schools' curriculum, such as the high school government course, clearly have the potential to support both educative civic activities and learning the facts of government, it is also clear that educating for democracy should not rely on a one-semester course taken during the senior year. Rather, opportunities to educate for democracy should exist throughout the high school curriculum and they should build upon each other. A school-wide commitment (which is to say, a community-wide commitment) is therefore necessary.

Linking a Democratic Vision to a Multiple Pathways Approach

What would such a commitment mean in schools that embrace a Multiple Pathways approach? There certainly are challenges to integrating civic learning opportunities across classroom and internship sites that are organized around career themes, but no more so than integration into traditional models of "vocational" or "academic" education. As with the traditional models, if career-related internships, for example, are seen as distinct from civic activities, both students and their teacher/mentors will find little enthusiasm or time for such "integration." Moreover, there is some reason to worry that once students pursue different pathways through high school, some pathways will offer more civic opportunities than others. For example, high school seniors in the California survey who did not expect to take part in any form of post-secondary education reported significantly fewer of the opportunities that foster civic commitments and capacities than those with post-secondary plans. Twenty-five percent of students who were planning to attend a four-year college reported that they had frequently been part of simulations in their classrooms; only 17 percent of students who planned on vocational education after high school could say the same. Only 10 percent of those with no post-secondary plans reported frequently having such opportunities in their classrooms (Educating for Democracy, 2005).

The Multiple Pathways approach potentially creates contexts for students to study the relationship between democracy and the economy and to extend civic lessons into the workplace. Unfortunately, neither the civic education literature nor the scholarship in career and technical education speak to how this should be done. For insight on what it might mean to integrate democratic and career education, we turn back to Dewey.

Dewey and Democratic Vocational Education

During the period between 1913 and 1917, Dewey joined the public debate between labor and business over how vocational education programs should be structured and governed. It is noteworthy that by 1913 an array of ideologically diverse groups agreed on the importance of expanding vocational education. As Kantor (1986) describes, support came from "businessmen, corporate apologists, … efficiency-oriented educators, … labor leaders, liberal reformers, and radical intellectuals" who shared the view that schools should respond to the demands of the new industrial economy. Like other spheres of reform during the Progressive era, this coalition was rife with disagreement over the specifics of policy proposals. Labor believed that vocational education should be integrated into the existing public education system; business and manufacturing groups advocated separate autonomous sites for industrial education (Kliebard, 1999). The question "should …vocational education [be] under 'unit' or 'dual' control," framed the broader policy dialogue and served as Dewey's point of entry into the debate (Dewey, 1913).

The vigor with which Dewey addressed the issue—he produced fourteen separate articles, speeches, or chapters on the topic—is testimony to his belief that the debate on vocational education represented more than a narrow dispute over administrative structure and control (Rogers, 1994, p. 120). For Dewey, who envisioned schools as a "projection … of the type of society we would like to realize," all educational decisions fundamentally were choices about what sort of democracy should be created (Dewey,

1916a, p. 326). From this vantage, decisions about vocational education were choices about the future possibilities of economic democracy.

> The movement for vocational education conceals within itself two mighty and opposing forces, one which would utilize the public schools primarily to turn out more efficient laborers in the present economic régime, with certain incidental advantages to themselves, the other which would utilize all the resources of public education to equip individuals to control their own future economic careers, and thus help on such a reorganization of industry as will change it from a feudalistic to a democratic order (Dewey, 1917a, p. 150).

Not surprisingly, Dewey found himself at odds with manufacturing interests and advocates for 'dual' control. A prime adversary was David Snedden, the Massachusetts Commissioner of Education, whose 1906 report helped create broad-based momentum for expanding vocational education in the public school system.[3] Snedden argued that those who wanted to use education to democratize factories were "romantic impracticalists" (quoted in Wirth, 1972, p. 154). He reasoned that the purpose of vocational education is to create "greater productive capacity" (Snedden, 1915, p. 37). The critical question for Snedden was how this goal could be met most efficiently. He held that separate sites for vocational education could best prepare young people for the "pursuit of an occupation" because these settings could mirror the reality of factory life (Snedden, 1915, p. 34). In such sites, "shop standards not school standards must prevail" (Snedden, 1910, pp. 36). Students would be prepared for highly differentiated adult roles in lines with "right standards of efficiency in the economic world" (quoted in Kantor, 1986, p. 415.)

[3] Snedden's student, Charles Prosser, was the principal author of the 1913 report referred to above by the Commission on National Aid to Vocational Education (Hyslop-Margison, 2001).

Noting that the differences between himself and Snedden were “profoundly political and social,” Dewey rejected the idea that education’s role is to prepare young people for particular trades (Dewey, 1915, p. 412). “I object to the identification of vocation with such trades as can be learned before the age of, say, eighteen or twenty; and to the identification of education with acquisition of specialized skill in the management of machines” ,” (1915, p. 411), One problem with such trade training was that it neglected the constant change in both machines and the broader workplace that characterized the new industrial economy (Dewey, 1914). In addition, it skewed teaching and learning toward low-level skills. Too narrow a focus on one job or role, Dewey (1916a, p. 318) reasoned, encouraged educators to emphasize “skill or technical method at the expense of meaning.”

Dewey’s fundamental concern was that Snedden’s model of vocational education reproduced class inequalities.

> I am utterly opposed to giving the power of social predestination, by means of narrow trade-training, to any group of fallible men no matter how well-intentioned they may be (Dewey, 1915, p. 411).

He worried that, in separating cultural and vocational education, Snedden accepted the prevailing separation of mental and manual labor in the workplace. This distinction presumed that social efficiency demanded a hierarchical division of labor in which “a few do the planning and ordering, the others follow directions and are deliberately confined to narrow and prescribed channels of endeavor” (Dewey, 1916a, p. 320). Dewey held that such “feudal” relationships were both inefficient and immoral; they wasted untapped talent and undercut meaningful social interaction and development. Wishing to challenge

the "industrial regime that now exists," Dewey (1916a, p. 328) posed vocational education as an instrument for social change.

> The kind of vocational education in which I am interested is not one which will "adapt" workers to the existing industrial régime; I am not sufficiently in love with the régime for that. It seems to me that the business of all who would not be educational timeservers is to resist every move in this direction, and to strive for a kind of vocational education which will first alter the existing industrial system, and ultimately transform it (Dewey, 1915, p. 412).

It is noteworthy that Dewey's "desired transformation" points toward a society in which work and economic relations are interwoven with social democracy. He envisioned

> a society in which every person shall be occupied in something which makes the lives of others better worth living, and which accordingly makes the ties which bind persons together more perceptible--which breaks down the barriers of distance between them. It denotes a state of affairs in which the interest of each in his work is uncoerced and intelligent (Dewey, 1916a, p. 326).

This normative vision recasts "vocation" in democratic terms. Vocations are open and accessible to all. Through vocations, workers participate in knowledge work that builds community and is socially productive.

Dewey believed that "genuinely vocational education" prefigures the intellectual and social relations of such work and provides future workers with "industrial intelligence"—the knowledge and skills needed to press for industrial democracy (Dewey, 1915, p. 411). One facet of industrial intelligence lies in the ability to locate one's work within "its historical, economic and social bearings" (Dewey, 1913, p. 101). Dewey stressed the de-humanizing nature of specialized work separated from the larger purpose of the activity. While conceding that efficiency may dictate a certain amount of

specialization in the workplace, he wanted workers to understand the origins and purpose of what they were doing. Such understanding, Dewey asserted, enables workers to become more than mere "appendages to the machines they operate" (Dewey, 1916a, p. 324). It provides the insights necessary to develop (rather than merely follow) work plans. Dewey also imagined "the study of economics, civics, and politics" enabling future workers to recognize the problems with prevailing economic arrangements as well as strategies for social reform (Dewey, 1916a, p. 328). In part, he had in mind studying prominent progressive era 'social issues'—for example, "child labor … and the sanitary conditions under which multitudes of men and women now labor." Dewey also wanted future workers to develop a deeper (and critical) analysis of power and inequality. He called for workers to study the "methods employed in a struggle for economic supremacy … [and] the connections between industrial and political control" (Dewey, 1916b, p. 142). In short, workers must understand how economic interests influence political processes, and they must understand how political decisions influence both work conditions and the relationship within and between different sectors of industry.

For Dewey, industrial intelligence manifested itself in skills and dispositions as well as in understanding a body of knowledge. His primary concern was forging a more empowered role for workers. He reasoned that, in order for future workers to become an "integral part of a self-managing society," they need to be able to consider, create, and carry out plans of action (Dewey, 1916b, p. 141). This requires "intelligent initiative, ingenuity, and executive capacity" (Dewey, 1915, p. 411). Dewey associated these attributes with the application of the scientific method in social settings. Industrial intelligence thus meant the ability to identify problems, formulate hypotheses, conduct

observations, analyze data, and formulate strategies for change.[4] Dewey also looked beyond such capacities to the "intellectual and emotional traits" that express a commitment to inquiry and democracy. He expected workers with industrial intelligence to insist "upon widespread opportunity, free exchange of ideas and experiences, and extensive realization of the purposes which hold men together" (Dewey, 1916b, p. 138).

Dewey recognized that developing industrial intelligence required new approaches to teaching and learning. "As new subject-matter is needed, so are new methods" (Dewey, 1916b, p. 142). Neither the "scholastic method of acquiring, expounding, and interpreting literary materials," nor the strategy of "habituation" through "repetition" and "drill" could foster the understandings of the political economy or the creativity and initiative associated with industrial intelligence (Dewey, 1916b, p. 142). In part, Dewey called for revitalizing humanistic methods so that, rather than "taking flight to the past," students would be encouraged to "discover the humanism contained in our existing social life" (Dewey, 1916b, p. 142). This meant studying academic disciplines as tools of inquiry that could help students understand the "defects of present industrial aims and methods … [as well as the] means by which these evils are to be done away with" (Dewey, 1916b, p. 142).

In addition, Dewey called for "laboratory methods" that applied the experimental approach to the study of "ordinary industrial activities" (Dewey, 1916b, p. 142). The factory floor offered an ideal site for observation and experiment. While the factory worker is generally "under too immediate economic pressure to have a chance to produce knowledge like that of a worker in the laboratory … in schools, association with

---

[4] Dewey later developed these ideas into a model for participatory social inquiry. (See generally, Oakes and Rogers, 2006).

machines and industrial processes may be had under conditions where the chief conscious concern of the students is insight" (Dewey, 1916a, p. 324.) Thus, Dewey hoped that all students would have opportunities to consider and experiment with different ways to organize work processes and the relation between workers. In this way, youth initiated as students *of* the work place would be prepared to transform these sites when they became workers themselves.

Deweyan Insights for Education about Work and Civic Life

What insights can we draw from Dewey's almost century old contribution to the debate on vocational education? Certainly, advocates of Multiple Pathways in this collection have unmistakably rejected the "social predestination" that Dewey ascribes to Snedden. Yet, Dewey's critique of "trade-training" provides several important warnings for today's educators considering whether or how to link academic and career education (Dewey, 1915, p. 411). First, his worry that future technology threatens to make obsolete any specialized skills suggests that educators should avoid focusing the curriculum narrowly around work as it is presently constituted. There is simply no guarantee that narrow vocational skills learned today will be marketable in the workplace of tomorrow. Second, his criticism that trade training tends to foreground the production of goods at the expense of learning points to the need for career education that attends systematically to the production of student learning. That is, care must be taken to ensure that students are placed in the workplace for the sake of their intellectual and social development, rather than to advance the interests of any business.

Dewey's third warning is not to neglect a democratic vision of vocation as socially useful work that builds community. This redefinition of 'vocation' also holds lessons for Multiple Pathways, and linking to a broader civic imperative offers schools a principle for selecting and shaping career themes (see Quartz and Washor, this collection of papers, for a further discussion). For example, schools might opportunistically partner with and draw from community workplaces, businesses, governments, social services, and industries to construct themes that address shared public concerns. This understanding of 'vocation' is similar to Harry Boyte and Nancy Kari's (1996) use of the term "public work." They envision citizens involved in a number of practical activities geared toward "building the commons," e.g. creating schools, supporting volunteer fire departments, maintaining public parks (Boyte and Kari, 1996, p. 9). Dewey used 'vocation' more broadly to refer to any shared enterprise that serves the interests of society. This might mean promoting career themes tied to human services such as health care. Or, it might mean framing themes such as building/construction in relationship to the broader public interest that new structures would serve. Educators, students, and community members would need to grapple with what Dewey's principle means in practice. (And such discussions would represent rich opportunities for civic learning.)

Further, Dewey's understanding of democratic vocational education represents a powerful framework for teaching and learning. This framework envisions students using the experimental method to study work places and other social settings. For example, students could gather and analyze data on how workers use math across different worksites or on how workers in these different settings are compensated. Dewey's framework also calls for students to study the broader relationship between the

government and the economy. Students might examine and debate proposals regarding the minimum wage, living wage, or paid family leave. They might examine access to medical care. They might also discuss the role that organized labor and corporations play in the legislative process. The goal of such curriculum is to enable young people to appropriate the skills and disposition of inquiry as well as to promote a broad understanding of how current economic structures and processes came into being and how they might be changed. This approach resonates with some current scholars of career and technical education who call for "liberal," or "democratic," or "critical" vocational education (Lewis, 1997; Hyslop-Margison, 2001; Gregson, 1995).

By attending to social and economic issues, Dewey extends civic education beyond the formal political institutions of American democracy. He notes, "political democracy is not the whole of democracy. On the contrary, experience has proved that it cannot stand in isolation" (1916b, p. 138). Schools' common practice of separating courses in "government" and "economics" highlights such a separation of the political from "the whole." In contrast, the Deweyan approach frames issues of class inequality and poverty in their relationship to fundamental concerns with equality and political participation. It also makes explicit that economic conditions are not natural and inevitable, but the result of particular public policy choices.

This broad vision of civics education suggests that students should study democratic practices within a variety of institutions—political, social, and economic. For example, it is common to place students as interns in government agencies or community-based organizations for 'service learning' projects that enable youth to learn about substantive issues as well as how the political process works. Students might

equally benefit from internships that allow them to study firsthand how unions or businesses include workers in decision-making and governance. In this view, the key consideration should not be whether the internship site is 'public' or private, but rather whether the student will have a meaningful opportunity to study the exercise of voice and collective decision making.

Dewey's vision of democratic industrial education for industrial democracy means highlighting problems related to economic inequality and considering how such inequality can be redressed. Significantly, this concern with social change might hold particular resonance for low-income youth who presently are the least engaged in formal politics. That is, a curriculum that highlights strategies for addressing economic inequality may re-engage youth who previously have felt the mainstream curriculum does not attend to their primary concerns (Morrell, 2004; Oakes and Rogers, 2006). Dewey's vision also highlights the importance of preparing students to be effective citizens – with the knowledge, skills, and commitments needed to work for fundamental changes in the political economy. This entails providing them with the tools to understand social problems, the vision of a possible democratic future, and the ability and commitment to take action for change.

Multiple Pathways and the Future of Democracy

Reframing the Multiple Pathways approach around democratic purposes holds great potential for revitalizing education and civic life. We would expect students who experience democratic education through Multiple Pathways to develop knowledge and skills along three lines. First, they would acquire procedural knowledge about the formal workings of government and substantive knowledge about critical policy issues,

particularly issues tied to economic inequality. Second, they would forge a normative vision of democracy, economic democracy, and the democratic work place. Third, they would develop the skill, understanding, and commitment needed to participate effectively in the workplace, in formal political institutions, and in campaigns to effect social change.

Although the historical record leaves us doubtful about the future of democracy in *vocational* education, a "new" education that more broadly interprets "vocations" in light of their civic purposes offers a very positive vision. Throughout the last century, economic purposes have served as the overarching rationale for vocational and career education (Kliebard, 1999). Moreover, in large measure, these purposes have been defined by business and elite interests (Kantor and Lowe, 2000). It is likely that any new effort to promote democratic vocational education will face pressure to differentiate opportunities across pathways, re-prioritize academic or vocational curriculum over civic curriculum, and reproduce the values, understandings, and practices of the prevailing political economy.

As in Dewey's era, it is possible that other constituencies might be brought to bear to counter these pressures sustaining the status quo. For example, organized labor and grassroots community groups might participate alongside professional educators and representatives from business groups in developing and guiding the implementation of new policies. There are a number of emerging examples from across the country of groups representing the interests of working people effectively joining in educational reform. In many of these cases, the reform efforts highlight the democratic ends of

schooling (Oakes and Rogers, 2006; Anyon, 2005). Clearly, any serious effort to infuse democracy into the Multiple Pathways approach will require robust democratic action.

REFERENCES

APSA Task Force on Inequality and American Democracy. (2002). American Democracy in an Age of Rising Inequality. *Perspectives on Politics 2* (4), 651-689.

Anyon, J. (2005). *Radical Possibilities: Public Policy, Urban Education, and a New Social Movement*. New York, Routledge.

Baldi, S. et al. (2001). *What Democracy Means to Ninth-Graders: U.S. Results from the International IEA Civic Education Study*. Washington, D.C.: National Center for Education Statistics.

Boyte, H. & Kari, N. (1996). *Building America: The Democratic Promise of Public Work*. Philadelphia: Temple University Press.

Brand, B. (2003). *Rigor and Relevance: A New Vision for Career and Technical Education*. Washington D.C., American Youth Policy Forum.

Cohen, C. & Dawson, M. (1993). Neighborhood Poverty and African American Politics. *American Political Science Review, 87*(2), 286-302.

Delli-Carpini, M. & Keeter, S. (1996). *What Americans Know about Politics and Why it Matters*. New Haven: Yale University Press.

Dewey, J. (1913). "Some Dangers in the Present Movement for Industrial Education." MW **7**: 98-103.

Dewey, J. (1914). "A Policy of Industrial Education." MW **7**: 93-97.

Dewey, J. (1915). "Education vs. Trade-Training: Reply to David Snedden." MW **8**: 411-3.

Dewey, J. (1916a). *Democracy and Education*. MW. **9:** 1-370.

Dewey, J. (1916b). "The Need of an Industrial Education in an Industrial Democracy." MW **10**: 137-43.

Dewey, J. (1917). "Learning to Earn." MW **10**: 144-50.

Educating for Democracy. (2005). The California Survey of Civic Education. Available from The Constitutional Rights Foundation at, http://www.cms-ca.org/research.htm.

Galston, W. (2001). Political Knowledge, Political Engagement, and Civic Education. *Annual Review of Political Science,* **4:** 217-34.

Galston, W. (2004) Civic Education and Political Participation. PS Online, *April* 263-6.

Gibson, C. & Levine, P. (2003). *The Civic Mission of Schools.* New York and Washington, D.C. The Carnegie Corporation of New York and the Center for Information and Research on Civic Learning.

Gregson, J. (1995). The School-to-Work Movement and Youth Apprenticeship in the U.S.: Educaitonal Reform and Democratic Renewal? *Journal of Industrial Teacher Education*, **32**(3): 1-13.

Hyslop-Margison, E. (2001). "Principles for Democratic Learning in Career Education." *Canadian Journal of Education* **26**(3): 341-61.

Kahne, J., Chi, B., & Middaugh, E. (2006). Building Social Capital for Civic and Political Engagement: The Potential of High School Civics Courses. *Canadian Journal of Education*, 29(2), 387-409.

Kahne, J. & Westheimer, J. (2003). "Teaching Democracy: What schools need to do." *Phi Delta Kappan.* 85(1), 34-40, 557-66.

Kahne, J. and Sporte, S. (2007). "Developing Citizens: A Longitudinal Study of the Impact of Classroom Practices, Extra-Curricular Activities, Parent Discussions, and Neighborhood Contexts on Students' Commitments to Civic Participation." Manuscript submitted for publication.

Kantor, H. (1986). "Work, Education, and Vocational Reform: The Ideological Origins of Vocational Education, 1890-1920." *American Journal of Education*. 94:4:201-26.

Kazis, R., H. Pennington, et al. (2003). Ready for Tomorrow: Helping All Student Achieve Secondary and Postsecondary Success. Washington D.C., National Governors Association.

Kliebard, H. (1999). *Schooled to Work: Vocationalism and the American Curriculum*. New York, Teachers College Press.

Levine, P. & Lopez, M. (2002). *Youth Voter Turnout has Declined by any Measure*. Washington D.C., Center for Information and Research on Civic Learning.

Lewis, T. (1997). "Towards a Liberal Vocational Education." *Journal Of Philosophy of Education* **31**(3): 477-489.

Macedo, S., Y. Alex-Assensoh, et al. (2005). *Democracy at Risk: How Political Choices Undermine Citizen Participation, and What We Can Do About it*. Washington, D.C., Brookings Institution Press.

McDevitt, M. & Kiousis, S. (2004). *Education for deliberative democracy: The long-term influence of kids voting.* Working Paper #22, Center for Information & Research on Civic Engagement: University of Maryland.

Meeder, H. (2006). *Reinventing the American High School for the 21st Century*. Washington D.C., Association for Career and Technical Education.

Metz, E.C. and Youniss, J. (2005). Longitudinal Gains in Civic Development through School-Based Required Service. *Political Psychology 26* (3), 413-438.

Morrell, E. (2004). *Becoming Critical Researchers: Literacy and Empowerment for Urban Youth*. New York: P. Lang.

National Secretaries of State, 1999

Niemi, R. & Junn, J. (1998). *Civic Education: What Makes Students Learn?* New Haven, CT: Yale University Press.

Oakes, J. and J. Rogers (2006). *Learning Power: Organizing for Education and Justice*_New York, Teachers College Press.

Putnam, R. (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster.

Report of the Commission on National Aid to Vocational Education. (1913). *American Education and Vocationalism: A Documentary History, 1870-1970*. M. Lazerson and N. W. Grubb. New York, Teachers College Press**:** 116-132.

Rogers, J. (1994). *Education as Politics, Politics as Education: John Dewey and Critical Intelligence*. Unpublished Doctoral Thesis, Stanford University, Stanford, California.

Snedden, D. (1910). *The Problem of Vocational Education*. Boston: Houghton Mifflin Company.

Torney-Purta, J. (2002) The School's Role in Developing Civic Engagement: A Study of Adolescents in Twenty-Eight Countries. *Applied Developmental Science,* **6**(4), 203-12.

Verba, S., Schlozman, K., & Brady, H. (1995). *Voice and Equality: Civic Voluntarism in American Politics.* Cambridge: Harvard University Press.