

FOREWORD

Two powerful economic trends have driven education reform since the seminal publication of *A Nation at Risk* in 1983.

The first trend, widely celebrated by educators, is that, on average, irrespective of field of study, the wage premium for college degrees over high school diplomas has doubled. That trend implies that, on average, more postsecondary education results in higher earnings irrespective of major field of study. This suggests that the proper goal for policy is the oft-repeated “college for all,” with the BA as the gold standard for success and the graduate degree as even better.

The second, and more dramatic, trend is most often ignored by education reformers. That trend shows that while the wage premium for the average BA has doubled, at the same time, the variation in earnings by postsecondary field of study, from the lowest to the highest, has more than quadrupled. This demonstrates that the relationship between fields of study and their connection to particular career pathways has increasingly powerful effects on future earnings. Differences in earnings by field of study is also why oftentimes less education is worth more in a high-paid field of study than more education in a low-paid field of study. It is why more than 40 percent of people with BAs make more than people with graduate degrees; 30 percent of AAs result in higher incomes than the average BA; and many certificate holders make more than the average person with an AA or BA. But until the recent past, education reformers continued to embrace “college for all” and largely ignore the importance of field of study or the value of any postsecondary credential other than the four-year degree.

In 2011, however, with the publication from the Harvard Graduate School of Education (HGSE) of *Pathways to Prosperity*, the tide began to

turn. Drawing on data from the Center I lead at Georgetown University and other sources, the Pathways authors challenged the premise that the only path to a middle-class income is through a four-year college or university, and provided compelling evidence from other nations that strong vocational education systems could be engines of economic mobility and growth.

In *Learning for Careers* one of the *Pathways* report authors, Bob Schwartz, along with Nancy Hoffman, documents the extraordinary efforts of a growing number of states and regions that have come together under the umbrella of HGSE and Jobs for the Future (JFF) to tackle the challenge of building career pathways systems designed to provide young people with the combination of academic, social, and technical skills, credentials, and work experience needed to launch them into careers in high-growth, high-demand fields like health care and information technology. The Pathways to Prosperity Network, cofounded by Hoffman and Schwartz in 2012, brings together leaders from government, business, K–12 and higher education, and the workforce system at the state and regional levels to build pathways that span grades 9–14 and are aligned with regional labor market needs. In states as diverse in size and demographics as Arizona, California, Delaware, Massachusetts, Tennessee, and Texas, and regions including Central Ohio, the Twin Cities, and New York City, leaders are working across agencies and sectors to create a visible opportunity structure for a broad cross-section of young people whose needs are not well served by an academics-only diet. The book documents the progress some of the leading states and regions in the Pathways Network are making without at all minimizing the technical and political challenges entailed in trying to strike a better balance between the academic and career purposes of education. The Pathways Network is trying to elevate career readiness, not just college readiness, as an important goal for all students. The importance of the Pathways Network—and of this book, which describes what it has accomplished and points to the work ahead—can scarcely be overstated.

We often forget that the clarion call to education reform in 1983 was primarily a response to an economic threat. It announced: “Our nation is at risk. Our once unchallenged preeminence in commerce, industry, science,

and technological innovation is being overtaken by competitors throughout the world . . . (W)hat is at risk is the promise first made on this continent . . . that all children . . . can hope to attain . . . gainful employment.”

“Gainful employment” is a far cry from “college for all.” In part that disconnect has resulted from the fact that for its first twenty years education reform focused on the academic basics in elementary school, far removed from the nexus of the education pipeline and the economy. But as the reform movement moved up the education ladder toward high school, the need to align education reforms with economic ends has become unavoidable.

The 2005 National Education Summit on High School moved beyond the academic basics toward a reassertion of the “gainful employment” standard for reform: “Building and expanding on past successes, the 2005 National Education Summit on High Schools looks toward an even bolder goal: redefining the role of high school in America while better connecting its curriculum to the expectations of colleges and employers. It takes us to the next level in raising standards and achieving accountability. It is no longer enough to ensure that all students are proficient at each grade level. It is time for every student to graduate both proficient and prepared for the real demands of work and postsecondary learning.”

But this reassertion of the gainful employment perspective proved to be way too little and way too late. By 2005 vocational education had already been banished from high school curriculums in favor of a one-size-fits-all academic pedagogy and curriculum designed to move everybody from high school to Harvard. Less than 1 percent of high school students were getting any meaningful occupational preparation.

To their credit the K–12 reformers were intent on providing a solid standards-based academic education for all students. But standards-based academic education has become too much of good thing, especially at the high school level. As the vocational pathways in high school shut down, the academic curriculum rapidly became the only pathway to college and middle-class careers. It has become harder and harder to sell the pure academic pathway when no more than a third of the students are able to make the journey from high school to the BA. Academic reform in high school

has also foundered on the shoals of abstraction characteristic of the new academic curriculum. Algebra II, for example, has become, for many, an artificial academic barrier to meaningful learning, not to mention high school and postsecondary completion. Nonetheless, the academic gatekeepers have soldiered on and doubled down on the academic high school with commitment to a nationwide “common core” curriculum.

As Hoffman and Schwartz show, academic standards have their place, but the logic of gainful employment and career pathways refuses to go away. They document why and how career pathways have gradually regained traction in secondary and postsecondary education. After banishment from the high school curriculum, vocational education has changed its name and rejoined the polite conversation in the guise of Career and Technical Education (CTE). There is a host of new entrants—including career academies, early college high schools, internships, apprenticeships, and occupational certificates—to the world of career-oriented programming.

The authors explain why and how our ability to move on with progressive education reforms will depend on our success in crossing four of the great divides between education and the workaday world.

First, at the most general level, we need to bridge the divide between academic and applied pedagogies. The current math, science, and humanities curriculums, for example, are organized as discrete hierarchies of increasing complexity and abstraction. Because they are taught abstractly, they don’t take advantage of applied pedagogy and are less accessible to students with an applied orientation and learning style. Both academic and applied learning suffer for want of integration.

Second, we need to bridge the divide between high school and college curriculums. The majority of students step off the disciplinary hierarchy in math, the sciences, English, and the humanities after high school in favor of applied major fields of study. The current focus on an academic core curriculum in high school does not provide an obvious transition to the more applied focus of postsecondary majors and fields of study.

Third, we need to do a better job of crossing the divide between general education and particular career pathways in the interest of advancing both

for all Americans. The current academic curriculum does best at producing academic knowledge and abilities—the kinds of knowledge and abilities measured by tests like the ACT, SAT, and GRE. Academic education does not do well at producing career competencies, like problem solving and critical thinking, that are best learned and tested in applied contexts. For example, the current high school math curriculum, which emphasizes arithmetic through Algebra II, does not match up with the math requirements of the vast majority of college majors or occupations. Even a casual analysis of the distribution of occupational skills demonstrates that less than 10 percent of workers use specific academic operations from geometry, algebra, or calculus on the job.

Fourth, we need to make sure that career pathways programs help to reduce, not increase, the class and racial divide in education and economic opportunity. We need to be sure that pathway programs do not reinforce the class- and race-based tracking deeply embedded in American society and, which, unfortunately is the default tendency in American education. The reforms that began in 1983 were intended to eradicate class- and race-based tracking by eliminating vocational and academic dumping grounds for the least advantaged students. Instead, by elevating a single academic pathway from high school to the BA as the highly preferred, most well-traveled but least often completed pathway to the middle class, standards-based academic reforms have encouraged striving among disadvantaged students but have also helped increase race and class inequality. That's why differences in access to postsecondary degrees with labor market value have accounted for most of the historical increase in earnings inequality since it began its dramatic spike in the early eighties. That's also why Hoffman and Schwartz insist that, while the focus of their Network's efforts is on getting more young people through to a first postsecondary credential with labor market value, this must be done in ways that don't foreclose the opportunity to continue on to a four-year degree, or more, should a young person wish to do so. Indeed, what we see so often is that once young people gain a sub-baccalaureate education and the capacity to enter the labor market in a well-paying job, they have the confidence and resources to go on to the BA, thus reducing the increasing

dualism in our education system that disproportionately reserves the BA for affluent whites and increasingly relegates minorities and lower-income students to sub-baccalaureate job training.

Ultimately, we need to cross the divide between schooling and career pathways because of the inescapable fact that our society is based on work. Those who are not equipped with the knowledge and skills necessary to get—and keep—good jobs are denied full social inclusion and tend to drop out of the mainstream culture, polity, and economy. In the worst cases, they are drawn into alternative cultures, political movements, and economic activities that are a threat to mainstream American life. Hence, if secondary and postsecondary educators cannot fulfill their economic mission to help youth and adults become successful workers, they also will fail in their cultural and political missions to create lifelong learners, good neighbors, and good citizens. The ultimate relevance of education is when it empowers people to do work in the world rather than retreat from it.

Learning for Careers is a signal contribution to this urgent effort to make education fully relevant to the career and life aspirations of all young people. In their vivid account of how Pathways networks—real collaborations between a range of educational institutions with businesses and political organizations—make it possible for young people to prepare for and embark upon successful, lasting careers, Hoffman and Schwartz summarize exceptionally important work and progress of the last decade while pointing to work that has yet to be accomplished. Their book will remain a touchstone for many education and workplace reformers in the years ahead.

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