Near 100,000 new jobs will be generated in Baltimore during the current decade, most of them in the business service sector. During the same decade, all nine of Baltimore’s large, low-performing neighborhood high schools will be transformed into numerous smaller high schools to, as the school system’s reform blueprint states, better prepare students to “pursue . . . challenging careers.” Both developments have enormous implications for Baltimore’s future. They are also inextricably entwined, both critical parts to a supply-and-demand equation on which the city’s economic growth prospects hinge.

These trends in mind, Baltimore’s business and workforce development leaders have spent recent years urging the Baltimore City Public School System (BCPSS) to give high school reform a sharper career focus. In a June 2003 report to the school system’s High School Steering Committee, the Baltimore Workforce Investment Board (BWIB) declared “Baltimore City’s students represent this metropolitan area’s greatest hope and challenge to building a stable and progressive economy . . . [and] high schools with an authentic workplace focus will engage and prepare students most effectively for post-secondary education and employment opportunities.” Alongside subsequent news reports that nearly half the city’s working-age citizens are unemployed, BWIB again underscored local demand for skilled workers and identified the industries most in need. Baltimore, it asserted in a March 2004 report, is “well positioned for rapid growth and development in service industries like health care and medical technology, financial services, information technology, and biotechnology.”

But despite their symbiotic nature—and business leaders’ recent prodding—workforce development and high school reform in Baltimore 2005, at the decade’s mid-point, continue to unfold in relative isolation of one another. Most perplexing: vocational education, better known as career and technology education (CTE) today, does not figure prominently into current high school reforms. This, despite economic and employment projections for Baltimore, and despite data showing that CTE not only prepares high school students for employment and bolsters their post-graduation earning potential, but engages those at risk of dropping out—a very real issue here, where nearly half of entering high school students never see graduation.
To help BCPSS explore the status of CTE in city schools and its potential role within Baltimore’s workforce development system, The Abell Foundation published the March report, “Help Wanted: Career and Technology Education in Baltimore City Public Schools.” The report brings into stark focus CTE’s promise for Baltimore, its recent and rapid demise here, and the unambiguous reality that in its current form it is unable to provide the career orientation necessary to realize the employment prospects spelled out above. A victim of drastic funding cuts, federal policy that favors academic achievement over career skills, and management oversight, CTE in Baltimore is currently failing its students and fast becoming obsolete.

Albeit real, the funding and policy challenges posed by the No Child Left Behind Act are hardly unique to Baltimore; school districts nationwide are struggling to re-invent career programs and keep them afloat. But the high stakes, lack of intervention, and even irony characterizing CTE’s local demise may be: CTE is unraveling without any consideration by school officials of its worth or potential—in a city where high school completion rates are dismally low and increasingly specialized jobs are going unfilled.

Baltimore City needs to be in the business of workforce creation, a process that needs to start, in a meaningful way, during the high school years. This article, a synopsis of the larger Abell report, argues that BCPSS should review its CTE program and weigh whether CTE in some form has a rightful place among today’s high school reforms, rather than simply let it die—particularly if unintentionally—from neglect.

**Background: 100 Years of Career Education**

Vocational education, first offered in America’s public high schools in the early 1900s, has evolved over the last century, responding to different times, falling under different names and assuming different forms. Career and technology education today is perhaps the most comprehensive of these, encompassing not just technical preparation for specific occupational fields, but also the strong academic underpinnings and analytical and interpersonal skills that are widely deemed critical to success in the workplace. That said, the original purpose of vocational education has remained constant throughout its century-long evolution: to keep high school students in school, to improve their prospects after school, and to increase their earning potential.

While public schools in the early 20th century were focusing on college preparation, some 90 percent of people ages 17 and older were either not attending high school at all or dropping out—in most cases to work, writes Michael Wonacott in his book, *History and Evolution of Vocational and Career-Technical Education* (2003). Public schools, though open to all, were clearly not meeting the needs of a majority, and in 1914 the Commission on National Aid to Vocational Education declared vocational education the means for making public schools more accessible—and relevant—to all segments of the population. It would provide an alternative to students leaving school to work; give students a reason to stay in school, thereby creating a more educated citizenry; create more efficient and productive workers; and increase young people’s starting wages. Perhaps most importantly, Wonacott asserts, it would “introduce to the educational system the aim of utility, which would . . . connect education with life by making it purposeful and useful.”

The benefits of career and technology education cited in research findings today ring similar: CTE graduates have better skills and earn higher salaries than their non-CTE counterparts upon entering the workforce; they are more likely to succeed in college; and they are generally less likely to drop out of high school than their non-CTE counterparts.

Yet these intrinsic values of vocational education have been largely overlooked in recent decades as federal education policy increasingly values academics over career and other alternative programs. The most recent upshot of this trend was the January 2002 enactment of...
ment of the No Child Left Behind Act (NCLB), the current administration’s initiative to ensure academic achievement through a rigorous carrot-and-stick system of accountability. While NCLB poses opportunities for raising standards, it perpetuates the notion that academic achievement leading to a college degree is the preferable outcome for all Americans, directing federal education dollars, state accountability and local school system priorities toward that end—and away from career-focused work.

For more than 30 years, the federal Carl D. Perkins Vocational and Technical Education Act has channeled federal dollars to CTE programs nationwide. In 2005 that pot totaled $1.3 billion—just 10 percent of vocational dollars overall, yet the single, largest source ever of federal high school spending. Now, the Bush administration is angling to eliminate all Perkins funding from its 2006 budget and redirect it to support NCLB initiatives. While this doesn’t necessarily pose a new challenge for vocational programs—local school districts have been siphoning vocational funds to pay for high-cost NCLB mandates for years—the possible removal of Perkins money as a reliable funding stream, coupled with stepped-up pressure to produce academic results, has CTE programs across the country scrambling to remain both relevant and viable.

Baltimore: Demand for Career Education Especially High

Nowhere would that scramble seem more probable than in Baltimore, where public school system dollars are scant—recall last year’s $58 million deficit—and career programs make sense: Technical jobs abound, unemployment of able-bodied workers is disproportionately high, and less than 60 percent of entering 9th grade students make it through public high school.

According to a March 2004 article in The Baltimore Sun, Baltimore City ranks sixth from the bottom among the nation’s 100 largest cities when it comes to labor force participation: Because some 200,000 residents 16 and older don’t have jobs, just 57 percent of the city’s working-age residents actually work. Roughly half of all high school students drop out and nearly one-third of city adults lack a high school diploma or its equivalent, yet because many jobs require this credential there are few positions for those who do not have it. In short, Baltimore has a labor pool; it just doesn’t have people in that pool equipped to meet current and emerging workplace demands.

Baltimore also has jobs. In its March 2004 report, the Baltimore Workforce Investment Board identified the five industry sectors with the best employment prospects for citizens of working ability and age. Within all five, demand for workers with specific skill sets—but not necessarily college degrees—is on the rise.

Baltimore has a labor pool; it just doesn’t have people in that pool equipped to meet current and emerging workplace demands.

Healthcare/Life Sciences, Baltimore’s largest employment sector, employs 17 percent of the local workforce and was one of just three industries to grow in Baltimore City between 1990 and 2002—by 9.3 percent. Wages grew 26 percent during that time and throughout the industry vacancies and career ladder opportunities both exist, and pipeline strategies are underway. Business Services, which employs 12 percent of the local workforce, also grew 9.3 percent during the 1990s, and statewide wages for the industry were up 51 percent. Hospitality and Tourism employs 8 percent of the workforce, and while industry wages are characteristically low, they increased 36 percent statewide during the 1990s. Construction Development accounts for 3 percent of total employment in the city, and average weekly wages for the industry increased 46 percent during the 1990s. Finally, Computer, Internet and Data Services represents 5.5 percent of Baltimore’s employment—thanks to steady growth during the 1990s in which employment grew 10 percent and wages increased 47 percent—and of all Baltimore industries, it pays the highest weekly wages.

Just as jobs and potential workers exist in Baltimore, so apparently does the will and need, to work immediately after high school. Between 1999 and 2002 some 35 percent of BCPSS graduating 12th grade students reported to the Maryland State Department of Education’s Pre-Graduation Survey that they planned to seek employment following graduation; in 2003, 6,488 of Baltimore City’s 25,543 high school students were enrolled in CTE courses, more than half of them at neighborhood schools slated for reform. Clearly what is lacking in Baltimore is the means to connect—in a
strategic and significant way—these sources of supply and demand, to train Baltimore’s prospective workers to fill its jobs.

CTE in Baltimore City Public Schools is Unable to Meet Demand

The relative dearth of workforce feeder systems in the city, coupled with the need for job training to start during high school years, make BCPSS an obvious candidate for assuming this workforce development role. With a roster of career clusters that closely parallel Baltimore’s workforce shortage/target growth areas, the school system is well positioned to do so.

Yet a close review of CTE in city high schools today reveals a glut of programs, many of them irrelevant and under-enrolled; declining enrollment in programs reflecting key growth areas like the health and biosciences; program duplication; and funding disparities among programs based neither on numbers nor need. While the causes for this dysfunctional portrayal of CTE are varied and complex, key factors in its decline to date span massive budget cuts, under-qualified instructional staff, a waning Tech Prep program, inadequate work-based learning, and ineffective industry advisory boards—all factors rooted in a general lack of coordination, oversight and regard for the purpose of CTE and the population it aims to serve.

No Accountability

Perhaps the starkest example of this lack of accountability is the overall neglect of policies to influence and steer the administration of BCPSS’ dwindling CTE program.

The Blueprint for Neighborhood High Schools, the document guiding BCPSS’ high school reforms, cites “career standards and life skills, such as problem solving, resource management and communication” as critical to promoting “strong academic rigor.” It also advocates establishing “strong partnerships with . . . employers” and developing “ways to create collective responsibility for student success that is shared across all education stakeholders”—including employers. The Master Plan II: 2002 – 2008, BCPSS’ system-wide road map for reform, also identifies CTE as a strategy for increasing student achievement. Specifically it pledges to “ensure that career and technology education programs meet industry standards” between FY’03 and FY’05 by enlisting CTE industry advisory boards to review curriculum and CTE program facilities, and providing work-based learning experiences for students and professional development for teachers. Together, these reform documents speak of CTE—at times broadly, at times very specifically—as a vital, going concern, worthy of greater emphasis and attention. Yet CTE in its current form is not vital, and it is quickly disintegrating.

Budget Gutting

A review of BCPSS budgets and spending reports between FY’03 and FY’05 reveal dramatic funding cuts and a haphazard funding process that have also contributed to CTE’s decline.

The announcement midway through the FY’04 budget year that BCPSS was facing a $58 million deficit spurred drastic layoffs and a very lean FY’05 budget which, combined, hit CTE particularly hard. CTE’s local funds are its largest and most critical funding source, earmarked for its largest, most critical investment: teachers. Yet according to BCPSS budget documents, CTE funds have been slashed by 56 percent in the last two years: a former central-office staff of a dozen now amounts to one, and 280 teaching positions have been whittled to 94. These local funding cuts, in turn, have forced BCPSS’ CTE administrator to tap its much leaner Perkins budget to underwrite basic aspects of the program—instructional materials and supplies—and keep it afloat. Given that these funds are themselves in danger of severe, if not wholesale cuts, and given that their own distribution has been questionable in the past (with certain schools getting a disproportionate share), CTE in Baltimore City could soon be facing a not-so-slow death by fiscal starvation.

Ill-Equipped, Under-prepared Teachers

An ongoing instructional crisis also continues to threaten the quality of CTE.

In FY’03, BCPSS provided funding for 235 CTE teacher positions across 33 program areas and 25 high schools. Of continued on page 5
those filling the positions, however, a number were unqualified for what they were assigned to teach. Twenty-five percent of all CTE teachers were provisionally certified in 2003, compared to 33 percent system-wide. Yet BCPSS staffing reports for individual schools, most notably zoned high schools, show that the percentages of provisionally certified CTE teachers are much higher. At Patterson, for example, 65 percent of CTE teachers were provisionally certified in FY'03; at Walbrook 46 percent were provisionally certified. Meanwhile, ill-equipped CTE teachers are only half the challenge; nearly half of all CTE teachers have served for 26 years or more, and many of those in highly-enrolled disciplines are nearing retirement. Should these teachers retire in the near future as expected, CTE could face even more acute teacher quality issues—especially given that professional development among CTE teachers in recent years has been minimal.

A Threatened Tech Prep Program

The demise of one of CTE’s strongest components, Tech Prep, in some of its most critical career areas has abetted CTE’s demise and bleak prospects overall.

Tech Prep is a federal program in which the junior and senior years of high school are linked with the first two years of college through an instructional sequence of college preparatory courses and rigorous technical training. For a number of years BCPSS collaborated with Baltimore City Community College (BCCC) to run this program with federal Tech Prep funding and staffing. But the loss of these resources in the last two years, and the deterioration of the relationship between the two institutions, has left the highly successful program in peril—and Baltimore’s workforce development prospects diminished: 20 of BCPSS’ 53 CTE programs are offered through Tech Prep, 16 of them in fields BWIB has identified as workforce shortage areas. But given the absence of a BCPSS/community college Tech Prep partnership, several CTE programs falling within BWIB focus areas are not presently available: Construction Trades, International Business Marketing, Manufacturing Engineering, Media Production Technology, Nursing, and Telecommunications.

Work-Based Learning: Barely Existent

The program that provides the critical work-based learning component of CTE in Baltimore is all but defunct, such that fewer and fewer students are getting applied training in the city’s key industry growth areas.

BCPSS provides work-based learning experiences to CTE students through Career Connections, a statewide program that links career development and education reform activities at the school system level with local economic and workforce development initiatives. At one time, this program provided all city high schools with counselors to develop and oversee work experiences and internships for students. But in FY’01, a five-year federal grant for Career Connections ended, and work-based learning in Baltimore has been in decline since. Other than the CTE Director, there is nobody to manage the many functions essential to the successful operation of an internship and cooperative education program: the recruitment of employers, monitoring of student progress, the collection and evaluation of information on outcomes. Similarly, there are little or no efforts to promote the program to students and community members or to regularly visit work-based learning sites to follow up with students and employers. Meanwhile, student participation in work-based learning experiences has dropped 66 percent overall between FY’00 and FY’03. More troubling yet, declines have been especially dramatic in four of the five clusters aligned with BWIB’s five target industry sectors—most notably the Health and Biosciences cluster which had 31 student participants in FY’00, and just one in FY’03.

Increasingly Defunct Industry Advisory Boards

Industry advisory boards have become increasingly inactive in recent years and a major factor in the breakdown of accountability and quality in BCPSS’ CTE program.
According to BCPSS’ Master Plan, steps to ensure that CTE programs “meet industry standards” were delegated to the 10 industry advisory boards charged with developing CTE curricula, locating CTE resources and providing oversight for the career clusters that comprise BCPSS’ CTE program. Former CTE staff members recall a time some 10 or 15 years ago when these boards were not only active, but proactive. One well-known example: The manufacturing/machinists program at Mergenthaler Vocational-Technical High School hired an instructor with an industrial arts background but insufficient experience to teach. One member of the advisory board for Manufacturing, under which the machinists program fell, hired the instructor at his plant over the summer to train, through work, as a teacher. Former CTE staffers recall other programs that remained activist right up until 2000, such as the Transportation and Graphics and Communication advisory boards.

The work and commitment of these bodies today is another story. Advisory board membership lists were unavailable for five of the 10 career clusters, four of which align directly with BWIB’s five target industry sectors. The advisory boards are designed to bring outside expertise and legitimacy to BCPSS’ CTE offerings, and include representatives of local businesses, non profit organizations, government and higher education, as well as BCPSS staff. But according to the lists that were available, BCPSS staff comprise one-third of membership overall and higher-education officials barely make a showing; community college officials represent just 2.5 percent of members, yet nearly half of all CTE programs in Baltimore are classified as Tech Prep. Finally, despite the charge bestowed upon them by the Master Plan, records show that CTE advisory boards met just once in FY’04, and meeting minutes were unavailable for review.

Next Steps
Some of the problems that exist within CTE in Baltimore City are related to recent budget cuts and insufficient funds. There are just as many issues that could be righted with decisions to do thing differently.

The First Step: Careful Consideration
School system officials must first decide whether they are committed to exploring the potential of CTE. Research and economic development data make a strong case for preserving CTE in Baltimore City; glimmers of CTE success throughout the city’s high schools further underscore the possibilities of a sound CTE program. BCPSS must undertake an in-depth review of the program so that it can make an informed decision about what place, if any, CTE has in current high schools reforms—as opposed to the current posture of negligence. To simply let CTE continue its current course would be irresponsible.

Next Steps: Concrete Actions to Strengthen CTE
Should BCPSS conclude that CTE is indeed worth preserving, there are some early and critical steps it should take.

1. Clarify CTE enrollment and programming for current 2004-05 school year.
As CTE data for this report was available only through 2003-04, prior to the dramatic 60 percent budget reduction, it is strongly recommended that the Office of Career and Technology provide enrollment figures by school, program and CTE teacher for programs offered in the current, 2004-05 school year. The Abell Foundation has offered external support for completing this process on a timely basis.

Based on the Blueprint for Baltimore’s Neighborhood High Schools, high school reform is moving forward with little consideration for what a well-supported CTE program might do to improve outcomes—despite the fact that most of the CTE enrollment is in the nine neighborhood high schools currently undergoing break-up and reform. This matter deserves the attention of the High School Steering Committee.

3. Build staffing, oversight and accountability of CTE department.
BCPSS’ CTE program reflects
numerous oversight lapses that have contributed heavily to
the program’s spotty system of accountability. These laps-
es must be addressed through increased staffing and estab-
lishment of a reliable process for identifying and tracking
CTE programs outcomes. For years, CTE has functioned
as an autonomous division within BCPSS. In 2001 a sepa-
rate office was created to aid the High School Reform Ini-
tiative; it is strongly recommended that CTE become part
of the High School Area Office to facilitate coordination
and alignment of CTE programs with the creation of new
high schools.

4. Conduct a program review with an eye toward con-
solidation.
Staffing and funding issues necessitate a rigorous
review to determine essential programs and areas for
expansion. Key steps in this review process would include:
eliminating programs with low enrollment and high pro-
gram duplication; strengthening current or adding new pro-
gams in BWIB focus areas; making BWIB a CTE plan-
ing partner; re-activating industry advisory boards, begin-
ning with Health/Biosciences and Business Management;
and ensuring that CTE funds are allocated equitably and
fully provide for program needs.

Bottom Line: CTE Holds Promise
As mandated by No Child Left Behind, meeting the
needs of all Baltimore City’s public high school students
will require meaningful programming. Career and technol-
ogy education engages students through their high school
education and offers them a firm first step into the “real
world.” BCPSS should fully investigate the problems and
potential of its CTE program before dismantling it. On the
brink of extinction, CTE may yet be a valuable strategy to
meet the needs of both career-bound students and Balti-
more’s workforce in the 21st Century.

Recently Awarded Grants

Baltimore Substance Abuse Systems .................. $120,000
Baltimore, MD
Towards a demonstration project, Threshold to Recover Pro-
gram, three threshold centers providing extended hour access
on a walk-in basis to traditional drug treatment and alternative
healing therapies.

The Book Thing ................................. $20,000
Baltimore, MD
For the purchase of a building to expand the free distribution of
donated books to students, teachers, and residents of Balti-
more City.

The Conservation Fund ......................... $100,000
Annapolis, MD
Two-year grant in support of the Technical Assistance Program
that helps develop vision plans for smart growth and smart
conservation with selected local county
planning boards.

Citizens Planning and Housing Association ....... $80,000
Baltimore, MD
For the development of a professional association of support-
ive housing providers to ensure safe, stable, drug-free and
affordable housing for ex-offenders and former addicts.

Mayor’s Office of Employment Development ........ $477,259
Baltimore, MD
Toward the establishment of the Ex-Offender Job Center in the
Mondawmin Mall, serving as a one-stop that will offer a broad
menu of needed transitional, supportive and employment-relat-
ed services to ex-offenders in an effort to reduce the recidi-
vism rate.

New Leaders for New Schools ..................... $110,000
Baltimore, MD
In support of a program to recruit and develop outstanding
school principals for Baltimore City public schools. The pro-
gram will offer a six-week summer institute, followed by a year-
long residency, mentoring, and intensive professional devel-
opment.

Johns Hopkins University School of Medicine ........ $50,000
Baltimore, MD
Towards an initiative designed to link community-based pri-
mary care settings with Hopkins to enabled the continued use
of prescribed buprenorphine as a drug treatment strategy to
prevent relapses for heroin addictions.

The full report of
“Help Wanted: Career and Technology Education
in Baltimore city Public Schools” is available on
The Abell Foundation’s website at
www.abell.org or: write to The Abell Foundation
111 S. Calvert Street, Baltimore, MD 21202
Summarizing results, Mr. Quayle reports, “Since October 8, 2004, we have purchased 34 houses from HUD. Construction was completed on 12 houses and they were sold immediately. The homes are beautiful, and we expect to meet our objective of 60 houses by October 8, 2005.

“A second objective is to renovate and sell houses to homeowners, repopulating and stabilizing neighborhoods. That is why all of the houses have been, and will be, sold to ‘homeowners’. A year ago houses in the Northeast neighborhoods where we are working were sold for $85,000 to $95,000. Today, these same houses are selling in a day or two, and for $115,000 to $125,000. We are playing a role in driving the market—stagnant in these neighborhoods for the past decade.

“We believe the strong market sales of our Asset Control houses increase the equity of existing homeowners and bolsters their confidence in their community.

“Our third objective is to set higher standards for renovation and to encourage other homeowners to invest. When budgets allow, we build new decks, wooden picket fencing, window shutters in the front. Outside, we provide new landscaping, brass lights and mailboxes.”

First year operating expense was provided by a $150,000 grant from The Abell Foundation; other support came from the Marion S. Knott Foundation ($35,000), Maryland Dept Housing and Community Development ($45,000), Baltimore Community Foundation ($10,000); Wm. Baker ($10,000) and Clayton Baker Trust ($25,000). Five lending institutions—Sun Trust, Susquehanna, K, Bradford, Madison Bohemian banks, and Liberty Federal Savings and Loan, provide loans for acquisition and renovation of houses. Building on early success, Senator Barbara Mikulski recently secured a $300,000 federal grant to expand the program to buy and renovate private, non-FHA foreclosures in the Asset Control area. State bond funds of $200,000 and Baltimore City HOME funds of $100,000 have also recently been contributed to expand the program in Belair-Edison.

Quayle adds: “We expect to earn $18,000 on each of the first homes that have been sold for $144,000. If we can keep up this pace the project would become self-sufficient and earn enough money to support our other programs—in anticipation of deep, federal cuts. We hope to be able to buy and renovate 100 HUD owned and privately foreclosed houses a year by 2007 and expand beyond the Northeast neighborhoods.

“But the really exciting news is this: Since we have been working with the program in these neighborhoods, no FHA foreclosure has been lost out of ‘home ownership’!”

Abell Foundation Salutes: Vincent Quayle, the funders, Senator Mikulski, and all of the participating financial and philanthropic institutions, the city and state leadership for leadership and support of the Asset Control program—helping to stabilize city neighborhoods by preserving houses for home ownership by purchasing, renovating them, and then selling them to new owner-occupants—and, in the end, for taking control of Asset Control.