A Report Card to Evaluate Educational Capacity

by Howard Coleman and John Fischetti

Abstract

Policymakers target educational accountability primarily at public school administrators and teachers, rather than also include the broader society in which schools are housed and where poverty thrives. This article proposes a process through which community members can develop a report card to determine the educational capacity of a region and address school-related and interconnected poverty-related issues simultaneously.

As part of that research project, the authors developed a report card for “Community Educational Capacity.” Several indicators in the data would allow communities to set target goals that impact public school success, including but not limited to academic achievement. This report card does not indict public schools but proposes selected key variables of academic achievement to measure a region’s capacity to support public education.

By gathering and analyzing regional data outside the No Child Left Behind Act’s mandates of adequate yearly progress, this report card could facilitate increased support for public education.

Keywords: educational policy, accountability, community involvement, K–12 schooling in U.S.

Thomas Jefferson wrote, “I look to the diffusion of light and education as the resource most to be relied on for ameliorating the conditions, promoting the virtue, and advancing the happiness of man” (Jefferson 1822).

In the 1980s and 1990s, poverty in the United States increased (Treist 1998) despite standards and high-stakes assessments intended to realize Jefferson’s vision of education. Laws, mandates, regulations, and policies all advance programs, curricula, and assessments.
designed to narrow achievement gaps among student subgroups, yet persistent poverty threatens that goal (Jorgenson 2002). Educational accountability primarily targets public school administrators and teachers rather than the broader society in which schools are housed. This article proposes a process that allows communities to develop a report card that determines their region’s educational capacity to address school-related and interconnected poverty-related issues simultaneously.

The Educational Pipeline

Educators who focus solely on school accountability may forget that public schools’ performance will determine society’s future, including socioeconomics, culture, politics, environment, health, and lifestyle. Numerous examples of schools enhancing student learning can be found throughout the country (Education Trust 2005). However, the current education system invariably accepts mediocre performance, particularly at the high school level, from a significant proportion of the student population (OECD 2006a).

The national Center for Public Policy and Higher Education has identified an “educational pipeline” trend that directly affects the nation’s economic and social well-being (Ewell, Jones, and Kelly 2007). The pipeline is an integrated system of public schools, universities, governmental agencies, and businesses designed to increase the “capital” of future workers.

Community Accountability and Responsibility

In 2007, former President Bush urged Congress and the nation to continue supporting the educational reforms he had spearheaded in his first term:

Five years ago, we rose above partisan differences to pass the No Child Left Behind Act, preserving local control, raising standards, and holding those schools accountable for results. . . . Now the task is to build on the success, without watering down standards, without taking control from local communities, and without backsliding and calling it reform. (U.S. Department of Education 2007)

President Obama recently focused his recommendations on educational reform:

We have let our grades slip, our schools crumble, our teacher quality fall short and other nations outpace us. . . . The time for finger-pointing is over. The time for holding ourselves accountable is here. The relative decline of American
education is untenable for our economy, unsustainable for our democracy, and unacceptable for our children, and we cannot afford to let it continue. (CNN 2009)

The forthcoming discussions between the Obama administration and Congress over reauthorization of the No Child Left Behind Act will probably still concern “holding schools accountable,” rather than communities, yet broadening accountability to include local policymakers, businesses, school boards, agencies, and the general public is critical. We define community to include local schools geographically connected to a hub of interdependent societal factors. Current accountability systems isolate individual schools from their geographic and organizational contexts. Nonetheless, an urban school district is connected to the suburban districts that surround it; a rural district is connected to its nearest large town; and a community is larger than one’s neighborhood, subdivision, or county.

Fostering higher educational standards and advanced degrees has many benefits (Ewell, Jones, and Kelly 2007).

- Workers with higher education levels earn more and thus provide more tax revenue for infrastructure and support services.
- Knowledgeable workers make fewer demands on welfare, crime prevention, and prison services.
- Educated workers make better health and lifestyle choices, which in turn saves public resources.
- Knowledgeable citizens are more independent and capable of caring for themselves, which decreases community agencies’ need to provide guidance and support.
- Educated citizens participate in the democratic process by voting and contributing to discussions on critical issues at all levels.

Many challenges will confront our communities as the American workforce becomes more brown and gray. Reaching consensus about a positive, civil, and productive work culture is becoming more problematic in our increasingly diverse society (Florida 2005). In addition, technological change and economic globalization require flexible workers who can adapt to new job roles and responsibilities; most workers entering the job market this year will change jobs five to seven times during their careers (Dwyer and Wyn 2001). Knowledge, educational level, and a commitment to continuing education will determine employee and organizational success.
In this Innovation Economy, the most valuable assets are not physical materials or natural resources, but human capital—the skills, capabilities, and education of individuals. Economic growth is driven by brainpower instead of the horsepower that came to define the mass production era of the Industrial Age. (Microsoft 2005)

Business, industry, health-care organizations, and government agencies require an adequate supply of qualified employees and leaders to compete in the global marketplace (Rouse 2005). In addition, population growth in some communities and loss in others will multiply the challenges during the coming decades. We believe that bringing diverse groups and resources together will help communities increase both high school and postsecondary graduation rates, establish policies that respond to the issues, and create a structure for problem solving.

A Report Card on Community Educational Capacity

One way to engage communities in the conversation about public education more specifically is to implement a report card on “Community Educational Capacity.” For example, several indicators in the data from the authors’ community could supplement No Child Left Behind’s accountability system. Communities could set their own goals to impact public school success, including but not limited to academic achievement. This report card would seek not to indict public schools but to measure key variables of academic achievement that the community can affect. The criteria for the report card are similar to using vital signs such as body temperature, heart rate/pulse, blood pressure, and respiratory rate to determine a person's general health. Proposed criteria include the achievement gap in Algebra I and English I in high school; teenage and adult high school completion rates; overall poverty rates; senior citizen poverty rates; and incarceration rates in state prison. Table 1 shows the sample community educational-capacity report card for an eight-county region in North Carolina. The number in boldface is the current aggregate mean for each criterion across the eight counties. The authors developed the grades “A” to “F” based on a review of the scales currently used to judge success independently of these criteria and our own professional judgment. The report card is a means for communities to initiate the conversation about the changes necessary to maximize the educational potential of all children.
The proposed report card indicators are defined as follows:

1. **High School Graduation Percentage.** Graduation percentage is the *percentage* of students who begin ninth grade together and graduate four years later. Even if one factors in those who complete high school or a GED within two more years, the percentage is approximately 73 percent. A grade of “A” is proposed for achieving a greater-than-90-percent graduation percentage.

2. **Percentage of Adult Population with High School Degree.** The influx of new residents to many communities mandates that the newcomers acquire the knowledge and skills to compete in a global economy. Adult education programs must move beyond high school equivalents to build capacity for twenty-first-century skills. About one-quarter of the community’s adult population lacks a high school degree. A grade of “A” is proposed for achieving a greater-than-90-percent high school graduation percentage for the adult population.

3. **Achievement Gap in High School Algebra I and English I Proficiency Rates.** A grade of “A” is proposed for narrowing the proficiency gap between majority and minority students to less than 5 percent in English I and Algebra I. Many indicators of academic achievement could be included. Fourth-grade achievement is generally strong across the United States; ninth grade is a critical year for educational success. We are proposing using this criterion and the gap between majority and minority students as a benchmark for community educational capacity to support all students’ success.

### Table 1: A Report Card for Assessing Current Community Educational Capacity

<table>
<thead>
<tr>
<th>Grade</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Graduation Percentage</td>
<td>&gt; 90%</td>
<td>&gt; 80%</td>
<td>&gt; 70%</td>
<td>&gt; 60%</td>
<td>&gt; 50%</td>
</tr>
<tr>
<td>Percentage of Adult Population with High School Degree</td>
<td>&gt; 90%</td>
<td>&gt; 80%</td>
<td>&gt; 70%</td>
<td>&gt; 60%</td>
<td>&gt; 50%</td>
</tr>
<tr>
<td>Achievement Gap in High School Algebra I and English I Proficiency Rates</td>
<td>&lt; 5%</td>
<td>&lt; 10%</td>
<td>&lt; 20%</td>
<td>&gt; 20%</td>
<td>&gt; 30%</td>
</tr>
<tr>
<td>Percentage of Population Below Poverty Level in All Subgroups</td>
<td>&lt; 10%</td>
<td>&lt; 15%</td>
<td>&lt; 20%</td>
<td>&gt; 20%</td>
<td>&gt; 30%</td>
</tr>
<tr>
<td>Percentage of Elderly Below Poverty Level</td>
<td>&lt; 10%</td>
<td>&lt; 15%</td>
<td>&lt; 20%</td>
<td>&gt; 20%</td>
<td>&gt; 30%</td>
</tr>
<tr>
<td>Percentage of Population Currently Incarcerated in State Correction System</td>
<td>&lt; .001 (1 in 1000)</td>
<td>&lt; .002 (2 in 1000)</td>
<td>&lt; .004 (4 in 1000)</td>
<td>&gt; .005 (1 in 200)</td>
<td>&gt; .010 (1 in 100)</td>
</tr>
</tbody>
</table>
4. Percentage of Population below Poverty Level in All Subgroups. The percentage of the community’s population below the poverty level is 17 percent. Sustained or persistent poverty is defined as 20 percent of the population remaining at or below the poverty level for twenty years. “Poverty” is still defined as a family of four earning less than twenty thousand dollars per year. The poverty rates of black, Latino, and American Indian populations average well above 20 percent in this community. A grade of “A” is proposed for achieving a poverty level below 10 percent.

5. Percentage of Elderly below Poverty Level. The elderly make up an increasing percentage of America’s total population. Elder citizens living below the poverty level are the sector of the population most vulnerable to health care, housing, and other basic problems. The elderly’s increasing demands and needs for community resources greatly influence local, state, and federal K–12 education budgets. If we disaggregate the two wealthiest areas of the community, the elderly poverty level is 21 percent. A grade of “A” is proposed for achieving a poverty level below 10 percent.

6. Percentage of Population Currently Incarcerated in State Correction System. Some four of every one thousand in the community are currently incarcerated in state prisons. That figure does not include those confined in county jails, furloughs, parolees, etc. Most of these inmates were not successful in school. The number of individuals held for felony convictions drains community financial resources. One goal should be to reduce the prison population by 75 percent through increasingly successful public education. A grade of “A” is proposed for achieving an incarceration rate of less than one in one thousand citizens.

Information from the Eastern North Carolina Poverty Committee (ENCPC 2007) and the North Carolina Department of Correction (NCDC 2007) databases was collected to determine the capacity of the community under study. We propose that based on this report card, the community receive an educational capacity grade of “C” (see table 2). That is not a grade for children, teachers, or schools, but a summary of the vital indicators that create educational capacity. The indicators are interconnected in ways that enable or inhibit the success of schools, much as blood pressure is connected to heart rate. Public schools cannot independently provide the capacity to support educational success for everyone: a broader, systemic effort involving all community stakeholders is needed.
Table 2: Grading the Community

<table>
<thead>
<tr>
<th>Grade</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Graduation</td>
<td>&gt; 90%</td>
<td>&gt; 80%</td>
<td>&gt; 70%</td>
<td>&gt; 60%</td>
<td>&gt; 50%</td>
</tr>
<tr>
<td>Percentage</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Percentage of Adult</td>
<td>&gt; 90%</td>
<td>&gt; 80%</td>
<td>&gt; 70%</td>
<td>&gt; 60%</td>
<td>&gt; 50%</td>
</tr>
<tr>
<td>Population with High School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree</td>
<td></td>
<td></td>
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<tr>
<td>Achievement Gap in High</td>
<td>&lt; 5%</td>
<td>&lt; 10%</td>
<td>&lt; 20%</td>
<td>&gt; 20%</td>
<td>&gt; 30%</td>
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<tr>
<td>School Algebra I and</td>
<td></td>
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<tr>
<td>English I Proficiency Rates</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Percentage of Population</td>
<td>&lt; 10%</td>
<td>&lt; 15%</td>
<td>&lt; 20%</td>
<td>&gt; 20%</td>
<td>&gt; 30%</td>
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<tr>
<td>Below Poverty Level in All</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Subgroups</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Percentage of Elderly Below</td>
<td>&lt; 10%</td>
<td>&lt; 15%</td>
<td>&lt; 20%</td>
<td>&gt; 20%</td>
<td>&gt; 30%</td>
</tr>
<tr>
<td>Poverty Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of Population</td>
<td>&lt; .001</td>
<td>&lt; .002</td>
<td>.004</td>
<td>.005</td>
<td>.010</td>
</tr>
<tr>
<td>Currently Incarcerated in</td>
<td>1 in 1000</td>
<td>2 in 1000</td>
<td>4 in 1000</td>
<td>1 in 200</td>
<td>1 in 100</td>
</tr>
<tr>
<td>State Correction System</td>
<td></td>
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</tr>
</tbody>
</table>

**Education and Economics**

One way to determine the economic impact of student educational levels on citizens and communities is to calculate how many students graduate from high school each year. In 2006, the North Carolina Department of Public Instruction for the first time calculated the *four-year cohort graduation rate* of all high schools in the state. The four-year cohort graduation rate compares the number of ninth-graders entering high school with the number of twelfth-graders who graduate four years later. In 2006 the community’s overall graduation rate for traditional high school students (those receiving a diploma in four years) was 63 percent. That means that 37 percent of the ninth-grade students of 2002 did not graduate in 2006. In real numbers, three thousand students who were ninth-graders in 2002 did not graduate from high school four years later (NCDPI 2007).

Those three thousand dropouts will earn lower annual salaries and provide significantly smaller tax revenues for community infrastructures and services. The average annual salaries and projected lifetime earnings for various educational levels are presented in table 3 (U.S. Census Bureau 2005).

The difference between a high school dropout’s average annual salary and that of a high school graduate is $9,671 ($26,156 – $16,485). Multiplying the number of community students who did not graduate from high school in 2006 by this annual salary difference yields
a total annual lost income of just over twenty-nine million dollars. Using an average tax rate of 28 percent to calculate the taxes that the 2006 high school dropouts would have paid if they had completed high school, the annual lost tax revenue equals more than eight million dollars.

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Average Annual Earnings</th>
<th>Projected Lifetime Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Dropout</td>
<td>$16,485</td>
<td>$494,550</td>
</tr>
<tr>
<td>High School Diploma</td>
<td>$26,156</td>
<td>$784,680</td>
</tr>
<tr>
<td>Two-Year Degree</td>
<td>$35,103</td>
<td>$1,053,090</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>$49,656</td>
<td>$1,489,680</td>
</tr>
</tbody>
</table>

*U.S. Census Bureau, 2005

The projected lifetime earnings presented in table 3 highlight significant long-term differences in earning potential for each educational level. A worker with a high school diploma will earn an average of $290,130 more over his or her lifetime than will a high school dropout ($784,680 versus $494,550). A worker with an associate’s degree will earn an average of $558,540 more over his or lifetime than will a high school dropout ($1,053,090 versus $494,550). Workers with college degrees will earn on average $995,130 more over their lifetimes than will high school dropouts ($1,489,680 versus $494,550). If we again use an average tax rate of 28 percent to calculate the projected lifetime taxes that the 2006 high school dropouts would have paid if they had completed high school, the projected lost lifetime tax revenue equals nearly 244 million dollars.

State Fiscal Projections

The problem of annual tax-revenue loss versus spending is compounded by the budget problems states are projected to face in the next five years. A recent study conducted by the National Center for Higher Education Management Systems (NCHEMS) concluded that all fifty states will face potential budget deficits by 2013 (2005). The study identified several reasons for the predicted state revenue deficit gaps: 1) economic growth will not generate major annual surges in capital gains income; 2) sales tax revenues will decline due to a steady shift in consumption from goods to lightly taxed services, in addition to the increasing difficulty of collecting taxes on Internet transactions; 3) excise taxes will not keep pace with overall economic growth; 4) the rising cost of Medicaid will increasingly dominate spending; and 5) the federal budget deficit will continue
to increase (Jones 2006). Although most states’ financial conditions improved in 2006, long-term state-level funding projections indicate that every state will face gaps between revenues and expenditures from 2007 to 2013 (Boyd 2002). For example, if current trends continue, North Carolina’s deficit between tax revenues and spending will reach 6.7 percent by 2013 (Jones 2006).

The shortfall between revenues and spending will be exacerbated if current public school dropout rates continue into the next decade. As mentioned earlier, the North Carolina community under study averages three thousand high school dropouts each year. If that number continues annually until 2013, the community workforce will contain an additional fifteen thousand workers without high school diplomas. The absence of potential tax revenues increases the likelihood of a state budget deficit and decreases the funds available for community support services. Furthermore, workers lacking high school diplomas need more community support services than do workers who graduate. The result is a systemic and self-perpetuating economic problem tied to the projected state shortfalls between tax revenues and budget expenditures. Conversely, workers with higher educational levels earn higher wages, generate higher tax revenues, decrease projected budget deficits, and reduce the public expenditures needed for community support programs.

**Majority-Minority Achievement Gap**

The North Carolina Accountability Model has established proficiency standards to determine the academic performance and progress of public school students. A student who meets proficiency standards is considered well prepared for the next grade level. At the high school level, English I and Algebra I end-of-course test scores assess the percentage of students who meet proficiency standards. In the 2006 school year, 82.1 percent of community high school students met English I proficiency standards and 80.7 percent of high school students met Algebra I proficiency standards.

Those percentile proficiency ratings represent aggregate test results for all high school students. An analysis of student subgroup performance reveals lower proficiency ratings for minority students in the community. The average achievement gap between majority and minority students is 12.9 percent; a review of graduation rates reveals a similar gap between the two groups. Graduation rates for minority students in the community are 11.4 percent less than majority students achieve.

The majority-minority achievement gap will directly affect the community’s productivity over the next decade. By 2020, the area’s
population is projected to increase from 621,000 to 841,000 (Reid 2006). During that time, the minority portion of the local work force is projected to double, from 18 percent to 37 percent (Ewell, Jones, and Kelly 2007). If the current achievement gap continues, the greatest increase in the work force population will be among minorities with lower education levels than the other 63 percent of the work force.

The educational work force deficit will directly affect this community's ability to compete in the global economy. Future workers will not possess knowledge or skills comparable to their counterparts in other nations. Among developed countries, the United States currently ranks seventeenth in high school graduation rates (OECD 2006b).

Incarceration Rates

The United States has the highest incarceration rate in the world.

One in thirty-seven adults are in prison or have served time. If current trends continue, they mean that a Black male in the United States would have about a one in three chance of going to prison during his lifetime. For a Hispanic male, it's one in six; for a White male, one in seventeen. . . . By 2010, the number of American residents in prison or with prison experience is expected to jump to 7.7 million, or 3.4 percent of all adults. (Chaddock 2003)

Those sentenced to state or federal prison for committing felonies are more likely to have been unsuccessful in school, and they turn out to be extraordinary economic drains on our society. The culture in some communities is deeply rooted in close family members “serving time.” This drain on human capacity, which is rarely discussed as part of the educational continuum, should be the paramount goal of any program aimed at enabling success for all children. If one goal is to cut the prison rates by 75 percent in the next generation, dramatic changes in educational, health care, housing, and social service systems must take place. Communities must include reduced incarceration rates in discussions about school accountability.

Future-Ready Students

Government, public schools, colleges, universities, and businesses must all play roles in developing an educated and skilled work force. Continuing changes in technology and the global economy will require future workers who can change and adapt to new
employment and market conditions, or communities and future citizens will face economic failure.

The high school dropout rate significantly reduces the community’s educational capacity. The three thousand students who exited community high schools in 2006 without diplomas represent wasted human and economic potential. In addition to higher salaries and greater tax revenues, studies have also identified the following benefits of high school graduation:

- high school graduates live longer (Muenning 2005)
- high school graduates are less likely to commit crimes (Raphael 2004)
- high school graduates are less likely to depend on government health care, welfare services, or housing assistance (Garfinkel, Kelly, and Waldfogel 2005)

**Recommendations**

We propose enlarging the discussion of accountability under NCLB to include a community-wide report card on educational capacity (Schlechty 2005). Each community can then convene all those who have a stake in the success of public education and undertake extended conversations about working together to:

- define and affirm the “community”
- include all political, economic, social, and environmental agencies, boards, action committees, and other policymaking and advocacy groups in discussing the success of public education in the community
- increase the capacity to support children, families, and the elderly who are entrenched in sustained, persistent poverty
- improve graduation rates
- decrease the incarcerated population
- enhance adult education programs to support twenty-first-century knowledge and skills
- recruit and retain high-quality teachers and administrators in public school districts
- develop and implement strategic planning structures involving all government agencies, businesses, and educational institutions that will maximize the use and allocation of community resources
- respond to the predicted population changes that will create significant challenges, opportunities, and problems during the next decade
- provide affordable medical, dental, and vision care to all citizens
Next Steps
We encourage community members to take the following next steps:

1. Refine our proposed report card. Adjust the criteria based on community input.
2. Determine the levels of the report card, grades “A–F.” What are the appropriate measures for a grade of “A” for each criterion?
3. Agree upon steps and timelines to achieve the goal of an “A” for each criterion.
4. Establish a process for assessing progress toward our goal of an “A” in each area.
5. Participate in state and national discussions to determine criteria that might be agreed upon at the national level, so that certain aspects of a community’s report card can be aggregated into the nation’s report card on educational capacity.

Limitations
Our proposed report card has many limitations. The first is assuming that the public is inclined to seek simultaneous solutions to poverty and educational shortcomings. Second, the separation of our policymaking system into factions on key issues makes it difficult to gain consensus. Third, many of the variables involved have multiple, unreliable, and inconsistent measures upon which to grade progress. Obtaining good data and gaining public confidence about them are crucial steps in moving forward. Fourth, aside from mediocre high school achievement results, growth in this particular community affects infrastructure and coastal environmental issues simultaneously. Working together across knowledge bases, special interests, funding sources, and county lines is currently problematic, and at least in the short run discussions to develop the report card may only exaggerate current differences.

Conclusion
Jefferson’s vision for education is as relevant today as it was at the beginning of schooling in America:

If the children are untaught, their ignorance and vices will in future life cost us much dearer in their consequences than it would have done in their correction by a good education. (Jefferson and Cabell 1856)
By redefining school accountability as community accountability and by bringing together boards, agencies, and citizens from across currently disparate political turfs to develop, implement, and assess a community report card, our goal should be citizen and community success in a global, innovation-based economy and interdependent world (Friedman 2005).

References


Report Card on Educational Capacity


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