

## **Schools and the Economy: What's the Real Return on Investment? ©**

By Sharon L. Contreras, Ph.D.

Good morning. Thank you for being here and thank you to Winston McGregor and the Guilford Education Alliance for providing this forum.

On behalf of the more than 73,000 students we serve from prekindergarten through grade 12 in Guilford County Schools, it is a privilege to have the opportunity to speak to you this morning about a topic that I believe is critical to our future success as a county, state and nation – the return on investment in our public schools.

Or, to put it another way, how much is a good school system worth, and will greater investments yield bigger dividends for the taxpayers footing the bills and the businesses and communities benefiting from its product?

Economists and social scientists who have studied these questions extensively have identified several trends that help determine whether a community is thriving, declining, or merely maintaining the status quo. Not surprisingly, the quality of a community's public schools plays a vital role in each of them.

Greater investments and efficiencies in K-12 education pay for themselves via increases in economic productivity.

- A study regarding the financial return of states' investment in improving K-12 education for the National Bureau of Economic Research indicated that if all students in the U.S. could achieve basic mastery as measured by the National Assessment of Educational Progress or NAEP, the U.S. GDP would increase by \$32 trillion, or 14.6 percent.
- Yet, spending on K-12 education by states and localities amounted to just 4 percent of the total GDP of \$18.57 trillion in 2016. The economists also determined that the economic growth driven by even modest improvements in education would easily outweigh the additional costs (Hanushek, Woessmann and Ruhose, 2015).
- Closer to home, a 2015 study in Wake County found that good schools, are in fact, good for the local economy. In addition to providing employment for 18,000 people, the study found that each graduating class of the Wake County Public School System generates between \$1.4 billion and \$1.6 billion in additional lifetime income and saves taxpayers about \$639 million in welfare, crime and health costs. In addition, the study found that every \$1 million spent on school construction projects creates about 10 local jobs. Given that the average elementary school typically costs between \$15 million to \$20 million to build, the economic impact of building new schools and keeping current schools in good repair is significant (Walden, 2015).
- Other studies have shown that communities with higher-performing schools have higher levels of economic growth and development, and are more attractive to entrepreneurs starting new businesses as well as to business leaders seeking to relocate or expand their companies.

- The Greensboro Chamber/Piedmont Triad Partnership points out that when companies consider where they want to relocate, they consider quality of life, including the quality of public schools and other educational opportunities, as well as the presence of a well-educated and highly skilled workforce (Greensboro Chamber; Piedmont Triad Partnership, 2017).
- And Action Greensboro reminds us that young professionals want to live in vibrant communities where business, entrepreneurship, technology, museums, entertainment and the arts thrive – factors that our schools can help shape for good or ill (Action Greensboro, 2017).
- Lastly, as any Realtor will tell you and countless studies have demonstrated, housing values are largely shaped by the quality of schools available in each neighborhood and community, which is why GCS is proud to offer multiple magnet and choice themes. I am, however, recommending that we evaluate our magnet and choice themes to measure student/parent interest as well as alignment to regional, state and national employment trends.

Our economic development partners currently estimate that Guilford County has in excess of 1,000 fulltime positions local employers cannot fill simply due to the lack of skilled workers.

- Currently, for example, North Carolina ranks second in the nation in Information Technology (IT) employment growth, and we have two metro areas nearby – Raleigh and Charlotte – that rank in the top nationally in tech-oriented job growth, depending on the study and the years analyzed.
- In 2015, *Forbes* noted that Raleigh has the highest percentage increase in new STEM jobs (science, technology, engineering and mathematics) in the past decade, at 39 percent – second only to San Francisco and beating out Silicon Valley, Austin, Nashville, and other, better-known tech hot spots. Charlotte was sixth in 2015, but moved to first in tech job growth in 2017.
- Yet GCS lacks AP courses in computer science and informational technologies/systems, and the vast majority of our career and technical education students are using outdated equipment, machines and technology to learn lower-level job skills in Microsoft Office that aren't going to pay them enough to live on. No wonder 45.4 percent of all GCS students matriculating to GTCC have to take remedial math or reading courses – there is clearly a gap between college and career readiness standards and what we teach in our classrooms and the resources provided to our schools.
- Contrast our fledgling aviation program at Andrews High School, which uses small flight simulators to help students earn their pilot licenses, and our small but growing apprenticeship program through GAP (Guilford Apprenticeship Partners) with the large programs that exist in Oklahoma, Indiana, Texas, Ohio and other states.
- Houston, for example, just built a new 237,000 square-foot aviation high school that includes a two-story, 7,100 square-foot hangar where students work on actual aircraft and engines for planes made by Cessna, Skyhawk and other manufacturers. The school also has welding and automotive labs, a high-tech paint room and state-of-the-art science labs where students study elements of flight, along with two full size flight

simulators and an observation deck to watch planes take off and land at the nearby William P. Hobby airport.

- In Columbus – which we visited a few months ago with the Greensboro Chamber – ranks no. 5 in STEM-related job growth. STEM employment in Indianapolis is up 18 percent since 2006. Tech employment has grown even more rapidly. The job count at tech companies in Indianapolis is up an impressive 68 percent since 2006.
- One of the primary drivers of Columbus' growth is the region's investment in its mega site for advanced manufacturing and in its K-12 public schools, particularly in career/technical education. We have a mega site underway in a neighboring county, and the *News and Record* announced a developers' intention to develop additional advanced manufacturing sites in Guilford County. How are we preparing students for these jobs and careers? Many of you have heard me speak about the concept of a PTECH (Pathways in Technology Early College) High School renovated for and themed as an advanced manufacturing high school.
- During the Chamber's tour of the Honda automotive plant in Columbus, plant officials said it is key that students use the technology and equipment they're going to use at work – yet, once again, our Weaver Center facility is outdated and too inadequate space-wise to house the most modern equipment and technology – assuming we could afford to purchase it in the first place.

The aforementioned examples are the kinds of educational opportunities other students across the country are getting. Our graduates will be competing with them when it comes to jobs, whether in NC or globally.

In other words, we have job growth in this state and we, as a community, are not adequately preparing our students. This is not simply a school district issue. We know what needs to be done. If we want young adults to stay or come back to this region and contribute after they graduate we need to prepare them better for college and career success, and we need to bring more jobs to Guilford County. Not Raleigh. Not Charlotte. Here.

And, while a number of recent business rankings rate Guilford County and the Triad high on the list of potential relocation spots, others expressed concern that the state's continued disinvestment in public education will hamper the region's and the state's progress in securing new business.

Any discussion about the real return on investment in public schools would be incomplete without a deeper understanding of how the achievement gap between different student demographic groups is draining our productivity and causing real harm to children, families and entire communities.

That's why I believe that eradicating the achievement gap—which can absolutely be predicted by race—in Guilford County, North Carolina and nationally should be an economic imperative, as well as a moral one. Consider the following:

- A 2009 study, for example, indicated that **our annual GDP could increase by as much as \$525 billion** if we were to close the gap between white students and their black and Latino peers. (McKinsey Study: "The Economic Impact of Closing the Achievement Gap

in American's Schools," 2009).

- According to McKinsey, "...the underutilization of human potential as reflected in the achievement gap is extremely costly. **Existing gaps impose the economic equivalent of a permanent national recession - one substantially larger than the deep recession the country experienced recently.** For individuals, avoidable shortfalls in academic achievement impose heavy and often tragic consequences via lower earnings, poorer health and higher and costly rates of incarceration."
- McKinsey also noted that **gaps in U.S. educational achievement have affected GDP more severely than have ALL of the recessions since the 1970's.** If the U.S. had closed educational achievement gaps by 1998, its GDP in 2008 could have been \$1.3 trillion to \$2.3 trillion higher.
- The business case for closing the achievement gap is crystal clear – our future success as a community, state and nation is going to be determined by the students for whom the promise of public education and the promise of our democracy have yet to ring true.

That's why investments in K-12 public schools that provide additional supports and interventions for students at-risk for school failure save taxpayers long-term by reducing crime and dependency on social services.

- According to a 2008 study, **each cohort of high school dropouts costs the U.S. \$192 billion in lost income and taxes**, while a 2006 study found that if just 5 percent more of the young men in high school graduated, America would see an annual savings of \$4.9 billion in crime-related costs (Amos, 2008; Alliance for an Excellent Education, 2006).
- The personal and societal costs associated with dropping out of high school are unacceptably high. The Alliance for an Excellent Education estimates that when dropouts increase, local, state and national tax revenues suffer. Dropouts have a more difficult time finding and keeping jobs and even when they do, they earn, on average, \$8,000 less annually than high school graduates.
- **Without a high school diploma, individuals are far more likely to spend their lives unemployed or underemployed, on government assistance, or cycling in and out of the costly and ineffective prison system**, according to the Alliance for Excellent Education.
- **Similarly, national experts estimate that 65 percent of those convicted of criminal offenses are high school dropouts**, and that the lack of education is one of the strongest predictors of criminal activity (Amos, 2008).
- On the other hand, for each additional year of schooling a young person attains, **the odds that a student will someday commit a crime like murder or assault are reduced by almost one-third.**
- Investments in early childhood education also pay significant dividends. When early education investments are compared to other kinds of state investments, studies have found that **early education investments yield a return that far exceeds the return on**

**most public projects** that are considered economic development. A recent study raises the critical issues of how to build and maintain a viable state economy and considers the role of state subsidies in that economic endeavor while simultaneously examining where state subsidies have failed to create economic growth. The authors argue that funding should be directed to early education because of the long-term effects. **Other economists estimate an \$8 return on every \$1 invested in early childhood education.**

Moreover, investing in K-12 public schools is cheaper and more effective than incarceration in terms of transforming lives and opportunities.

- North Carolina, for example, spends an average of \$32,594 to incarcerate one prisoner each year. Electronic monitoring costs an average of \$2,686 per parolee per year, while probation and parole supervision costs \$1,770 per parolee each year.
- By way of contrast, GCS currently spends about \$8,300 per student per year and it takes a GCS teacher with a bachelor's degree and a state teaching credential (license) more than 10 years to earn \$50,000.

Investing in public education represents our nation's best and most effective anti-poverty/economic development program. We cannot de-couple economic development/poverty from learning – we have to address both.

- The current trends of increasing poverty and increasing student needs juxtaposed against decreasing public resources in North Carolina and in Guilford County simply are not sustainable for our community, and most importantly, are not sustainable for our children and their families.
- Our state has the thirteenth highest poverty rate in the nation and ranks among the top 10 in the nation in terms of food insecurity (NC Justice Center).
- Although our state's median income of \$50,584 increased by more than \$2,000 from 2015, it is still \$1,130 less than what it was in 2007; at that same time, 6.7 percent of North Carolinians live in extreme poverty. This means their incomes are less than half of the federal poverty line – or about \$12,300 a year for a family of four (NC Justice Center).
- Not surprisingly, poverty continues to hit some groups harder: particularly communities of color, women and children.
- In 2016 in our state, one in five children lived in poverty, and women faced higher poverty rates than men -16.7 percent, compared to 14.1 percent, respectively. (NC Justice Center).
- So how does Guilford County compare? The median household income in Guilford County is estimated at \$45,651 (about \$5,000 less than the state median), and about 17.6 percent of all residents live in poverty, according to 2015 and 2017 Census Data and using the federal subsistence level formula.
- In 2017, the federal poverty rates by income and family size are as follows:

- \$12,060 for one person;
  - \$16,240 for two people;
  - \$20,420 for three people;
  - \$24,600 for four people.
- Digging a bit deeper – and here’s where it gets really interesting and really challenging for those of us who care about children and public schools – while only 9.2 percent of adults in Guilford County age 60 or older live in poverty in our county, more than 25.4 percent of our children do.
  - We see the same trends in GCS data as well. As of last spring, approximately 65 percent of our students were considered economically disadvantaged, according to our Community Eligibility Provision and free- or reduced-price lunch data – another common indicator of poverty.
  - Keep in mind that that the U.S. Department of Agriculture’s calculations for Free and Reduced Meals are based on 185% of the federal poverty rate for reduced price meals and 130% of the federal poverty rate for free meals.
  - Generally, in 2017, a child in a family of four qualifies for free meals if the family’s combined household income is around \$24,600. That same family will qualify for reduced price meals if the combined household income is around \$45,510.
  - The fact that we have so many children living in poverty in our community is deeply concerning and requires our immediate attention and action.
  - According to the North Carolina Department of Public Instruction (NCDPI), school performance grades designated by the state align closely with student poverty levels. **Among all North Carolina schools in 2016-17 that received a D or F, 92.9 percent had enrollments with at least 50 percent of students from low-income families.** Clearly, this is not simply a case of parents not being involved in or concerned about their children’s education.
  - This finding dovetails with national studies that indicate that poverty has a significant, persistent and negative impact on student learning and achievement. Parents’ socioeconomic and educational levels correlate closely with most measures of student achievement, including reading proficiency levels, standardized state tests, AP/SAT scores, college entrance and complete rates, and other academic outcomes.
  - A number of studies indicate that American social mobility is increasingly a relic of the past, with nearly two-thirds of children born to parents in the bottom income quintile remaining stuck in the lowest two quintiles as adults. (Education and Economic Mobility, 2008).]
  - Sadly, **it is also true that race and ethnicity in our district correlate even more strongly to student performance than poverty** – there is no explanation for this other than implicit bias and institutional racism – we have to address this head on as well as a school district and as a community.

- The same is true for school segregation. Study after study shows that children of color and children living in poverty who attend segregated schools do not perform as well as children of color and children living in poverty who attend integrated and less racially isolated or economically stressed schools.
- This current status is unacceptable to me, and I hope – and pray – that it is unacceptable to you as well. This also is one of the reasons that we can't ignore poverty, race and ethnicity.

As a community and as a society and nation, we cannot afford to condemn so many children and young people to a future we would not want or choose for our own children and grandchildren, or our own nieces and nephews.

We have incredibly talented students in GCS who will rise to our level of expectations for them. We have smart educators and school leaders who are tackling these longstanding inequities head-on, and are making some progress.

The good news is that national studies show that high quality teachers and principals also can have an outsized effect on student learning, contributing about 58 percent of a school's total impact.

That's why we were pleased that 83.6 percent of our schools this past year met or exceeded growth, an accomplishment that reflects the hard work of our educators and students. We had a higher percentage of schools exceed growth – 32.5 percent – than other large districts in our state.

Acceleration is critical if we are going to meet the higher academic standards associated with the Common Core and begin eradicating the achievement gaps that have persisted far too long in GCS as well as across the state and nationally.

We also posted a new record high graduate rate of 89.8 percent, and matched the state average for the first time in terms of our more than 5,500 eleventh graders ACT scores, with 59.3 percent achieving a 17 or higher, which represents the minimal score accepted by most UNC system universities.

The hard truth is this, however. Currently, the majority of students in GCS – about 66 percent – are students of color, and an increasing number are immigrants and other English language learners. GCS students currently speak more than 105 world languages and dialects.

(20<sup>th</sup> day data 2016-17 = 40.6% Black; 15% Hispanic; 6.25% Asian; 4% multi-racial; .06% other and 33.4% white.)

Yet, GCS' Black and Hispanic students lag white and Asian students on just about every academic measure. They are under-represented in gifted programs, honors and college-level courses and are over-represented in special education and disciplinary data.

This is a matter of life and death for these students, and frankly, I believe, this is a matter of future sustainability for Guilford County. We have to intervene now and in significant, evidence-based ways if we want to tip the tide back in our favor and improve learning and life outcomes for all the children in our care.

Thriving communities start with strong schools and school systems that serve all children well. To help us improve how we prepare our future leaders and citizens, I engaged a 90-member Transition Team last year to study our district and make recommendations in several key areas. I am now using their recommendations to shape our next strategic plan, which will launch later this fall.

Given the urgency of our mission and the need to raise expectations districtwide while more rapidly scaling improvements, we have already started working on several initiatives. These include:

- Strengthening, deepening and expanding our career and technical education program to more closely align with our region's economic development priorities and the high-skill, high-wage jobs already available in informatics, advanced manufacturing, logistics, engineering, coding, cybersecurity and other related career pathways; This includes the formation of blue ribbon task force co-facilitated with the Chamber(s) of Commerce.
- I just came back from a convening of the Wallace Foundation, Council of Great City Schools (CGCS), the National Urban League and the Council of Chief State School Officers (CCSSO) where the discussion centered on the development of school leaders (principals) as well as principal supervisors as critical to school improvement efforts. Additionally, we discussed how state departments are leveraging federal set asides from our Title I, II, III and IV dollars to invest in leadership development as well as to develop and grow partnerships that focus on collective impact strategies that will improve schools and student outcomes, as well as foster economic development. In Guilford County, I have dramatically changed the way in which the district is organized to align with proven practices to address the issue of leader quality, and have continuously requested that the Board of Education support teacher development initiatives.
- We have commissioned a study on facilities use and boundary optimization with the BOCC to ensure 21<sup>st</sup> century facilities in GCS; implementation of study findings may well have the potential for diminishing isolation of our students by race and socio-economic status.
- I have presented several options to the Board of Education to address equity and to increase the system's efficiency and effectiveness through the use of technology solutions. I've presented a One Card initiative used by more than 600,000 students in over 1,000 schools throughout the United States. The One Card provides identification for students and can be used to improve transportation practices, communicate with parents about their students' daily attendance, increase access to and use of public and school libraries as well as our public transportation systems. The One Card initiative will allow for more powerful data analytics that increase our capacity to support students.
- Additionally, moving away from paper and pencil student enrollment/registration practices is more convenient for parents and more equitable for students who will no longer need to complete multiple applications or solicit numerous teacher evaluations to apply for our specialized or magnet schools. Such a tool—used in most if not all school districts or our size—would improve opportunities for evaluating how equitable our system is with respect to access to opportunities while also providing data critical to program evaluation that has not occurred. This technology solution would allow

homeless students, students with disabilities and English Language Learners, along with other vulnerable children, to be enrolled in school without delay.

We know schools benefit a community and we know what we need to better our schools for our community – so what can we do, collectively, to intervene and change our community's trajectory?

- We need each of you to stay informed and to continue actively supporting and advocating for high quality public schools for all children and for Guilford County Schools.
- We need collective action on these systemic issues – the risk factors and the outcomes are all intertwined, and system-by-system, person-by-person strategies have failed repeatedly. The key question is, therefore, what are we going to do together to: 1) raise awareness; 2) develop more powerful approaches; and, 3) increase the investment in public schools?
- We need your support as we continue to make difficult choices and decisions that will shift our limited resources to areas research tells us will have a greater impact.
- This list includes ongoing investments in teacher and principal compensation, professional learning for educators and in better facilities and current technologies for instructional purposes as well as operational areas.
- We need to expand public-private partnerships and find new ways of getting the work done so we can concentrate our efforts on what we do best – teaching and learning.
- We need our community, state and nation to come together and support all children, recognizing that our destinies are interconnected and inter-related, and that we must truly either pay now or pay more later.
- We need more flexibility for implementation of and greater investment in research-based strategies and programming that improves student learning and life outcomes.
- We are going to need to stay the course during the tough times because change is hard, and the issues we are tackling are deeply rooted in hearts and minds as well as in systems, processes and services. In other words, we must challenge the very “culture” of the system in areas where it impedes improvement, progress and innovation. And again, aligned and collective impact strategies are the only way we're going to move forward in significant ways.

Imagine what we could do – imagine what our community could be – if we had the resources and more importantly – the will – to carry out what was good for our students and the economic development of our community. Imagine the lives transformed; the hope and trust restored; and the future of our great democracy secured.

The Return on Investment would be extraordinary.

Thank you.