

**Community-Driven Globally Competitive High Schools:
Creating a Workforce for the 21st Century in the Greater Owensboro Region**



A Blueprint for Success

Prepared for the Greater Owensboro Economic Development Corp.

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Introduction

Bill Gates said it best when speaking to the nation’s governors in 2005 about American high schools—“Even when they are working as they are designed, they cannot teach our kids what they need to know today. Training the workforce of tomorrow with the high schools of today is like trying to teach the kids about today’s computers on a 50-year-old mainframe. It’s the wrong tool for the wrong times.”

The conclusions presented a few months ago in a study commissioned by the Citizens Committee on Education as well as First Lady Jane Beshear’s recent summit on high school dropouts highlight the need for community discussion on the importance of quality high schools to the economic well being of the region. The Citizens Committee study concluded that the direct cost of high school dropouts cost to our local governments is more than \$2 million a year. The problem is far larger than the financial ramifications.



| | OECD Reporting Country | Graduation Rate (%) |
|----|------------------------|---------------------|
| 1 | Denmark | 100 |
| 2 | Norway | 97 |
| 3 | Germany | 93 |
| 4 | Japan | 92 |
| 5 | Poland | 90 |
| 5 | Switzerland | 90 |
| 7 | Finland | 85 |
| 7 | Greece | 85 |
| 9 | France | 82 |
| 9 | Hungary | 82 |
| 9 | Italy | 82 |
| 12 | Czech Republic | 81 |
| 13 | Belgium | 79 |
| 13 | Iceland | 79 |
| 15 | Ireland | 77 |
| 16 | United States | 73 |
| 17 | Sweden | 72 |
| 18 | Luxembourg | 68 |
| 18 | Spain | 68 |
| 20 | Slovak Republic | 61 |

We are not preparing adolescents for the future. Owensboro, like 90 percent of the communities in the U.S, educates students that leave to go to college and never return. But a large percentage of students who never become adequately engaged in high school, including those who never finish, remain in the region and are a part of our workforce. We need to provide these students with new options that meet their unique talents and skills.

Economic Imperative for Change

The combined forces of globalization, technology and demographic change have created the perfect storm of economic change. The demographic challenge facing America, and the entire developed world, with its aging Baby Boomers, is well documented. It has created expectations for health care and retirement policy that, if unchanged, the nation can no longer afford. Technological change and globalization have accelerated the pace of economic change. Despite these changes our system of education has largely stayed the same. We are essentially preparing our young people to work in 20th century manufacturing jobs – jobs that increasingly do not exist. In fact, about half of the jobs we will need

in 2015 don't yet exist. The future lies in creative work: research, development, design, marketing and sales, global supply chain management.

The two-year degree is quickly replacing the high school diploma as the credential required for most jobs and the attainment of a middle class lifestyle. Projections by the Bureau of Labor Statistics indicate a strong demand for "middle level skills" and occupations for the next 50 years, with nearly all jobs requiring postsecondary education. Replacement needs for retiring workers will be strong, generating even more job openings in the middle level of the skills spectrum.

This is true in the Owensboro-Evansville Labor Market region. According to data gathered by the Green River Workforce Investment Board, many local industries from food processing to

| Education | Average Annual Earnings | Average Lifetime Earnings |
|---------------------|-------------------------|---------------------------|
| High school dropout | \$22,000 | \$1.1 million |
| High school diploma | \$31,000 | \$1.4 million |
| Associate degree | \$38,000 | \$1.8 million |
| Bachelor's degree | \$50,000 | \$2.5 million |

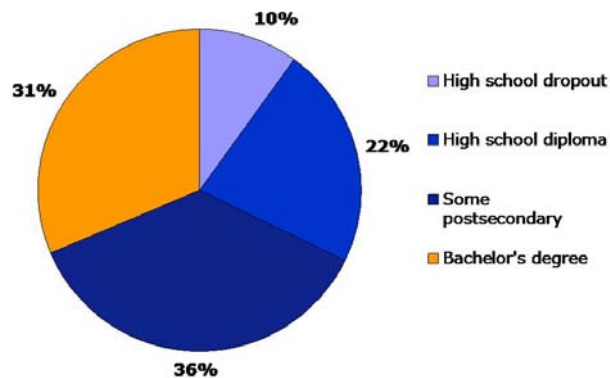
aluminum will experience a significant number of retirements in middle level skill occupations. The announced expansion of Owensboro Medical Health System adding 500 jobs, 300 of which will be in nursing, is another good example of this labor market need.

Many of the skills most in demand can be a part of the curriculum that blends the last two years of high school with the first two years of postsecondary education at a community/ technical college. The high school is now the frontline in America's and Owensboro's battle to remain competitive on the increasingly competitive international economic stage. The institution is only marginally different than when it was invented 150 years ago. As illustrated in the recent documentary Two Million Minutes, the US is falling behind other developed countries in high school graduation rates and postsecondary attendance. The US ranks 16 out of 21 highly developed nations with respect to high school graduation rates.

Reinventing the High School

The answer lies in reinventing high school - not just through reform within the institution, but reform of THE institution. We need innovative schools that engage students with learning by connecting them to the real world outside of the school walls.

This is not an indictment of the performance of the high schools in the Owensboro region. All of our high schools have excellent leadership. The professionals that work in our high schools do an outstanding job. This is not intended to be a criticism of the work that they do. The truth is that our high schools are doing exactly what they were designed to do for the industrial age—be successful with about half of the students they serve, while providing a place of refuge for the other half until they are of age to enter the workforce. It is the wrong tool for our present age. This model will not allow the nation or region to successfully compete in the post-industrial high tech global economy.



The solution is not easy. This paper is a call to action through a **partnership** between economic development, business leaders, and our local high schools to create new tools for the future of Owensboro’s workforce. We believe the new tools needed are multi-district alternatives to complement our existing large high schools. We need programs and schools to better engage kids and prepare them to be successful in the workforce of the future. Here are examples of innovative schools that are replacing the old model in other parts of the world:

- Science, technology, and entrepreneurship schools-** Ample opportunities exist in these fields everywhere. At the Lilian Baylis Technology School in south London, students use a hands-on approach to innovate with their own virtual high tech businesses.
- Allied health schools-** Seven out of ten jobs of the future will be in this industry. Our region’s largest employer, OMHS, will add more than 500 jobs in the next five years. Our national population is aging, and our region is not very healthy. What more evidence is needed? As the new hospital becomes a reality, the existing Parish Campus could be an ideal location for a multi-district program allowing students to explore health care professions.
- Schools for the arts-** Robert F. Wagner High School in New York uses the arts to engage and educate a very at-risk population-- not in preparation for careers, but to open minds to the power of learning. The structure that exists through the RiverPark Center sets the stage for a multi-district effort that engages students through the arts in our new downtown.
- Early college high schools-** High schools that blend grades 11 and 12 with two years at the community college are the wave of the future. We need to nurture and expand the programs like Discover College at OCTC.



Blue Print for Owensboro

We believe creating new multi-district **21st Century High School Academies** aligned to the evolving local workforce and global economy is imperative for the future competitiveness of our region. These academies would be open to students from all districts in Daviess County and would also be open to students from anywhere in the region. All academies would use Owensboro Community and Technical College’s Discover College as a platform to offer dual high school and college credit to students.

| | ACT | Graduation Rate | College Going Rate | College Remediation | 2 Yr-College Completion | BA College Completion |
|----------------------|------|-----------------|--------------------|---------------------|-------------------------|-----------------------|
| Apollo HS | 18.8 | 95% | 62% | 35.9% | 16.7% | 53.3% |
| Daviess Co HS | 19.4 | 97% | 66% | 35.1% | 20% | 69.8% |
| Hancock Co HS | 18.8 | 97% | 56.8% | 38.5% | 0% | 69.2% |
| Owensboro HS | 18.2 | 89% | 68% | 53.8% | 6.7% | 50% |
| State | 18.3 | 85% | 60% | 44.5% | 14.2% | 48.2% |
| Nation | 21.1 | 84% | 68% | 28% | 25% | 70% |

Data Sources: Kentucky Department of Education, Council on Postsecondary Education, Achieve, Inc.

These programs are not intended to be elite academies for only gifted students; our high schools have very successful advanced placement programs that serve many of our top students very well. With only a few exceptions, such alternatives should focus on engaging the average students, especially an increasingly large proportion of males not interested in school--students that will likely join our workforce soon after high school. The hands on, real world approach would help motivate them toward a goal of postsecondary education. The curriculum should be layered so that bright students interested in medicine or engineering could also find a challenging program aligned to their future goals as well.

These academies are not intended to be magnet schools—students would still have a home high school based on their place of residence. Maintaining the identity of the home high school would enable students to participate in sports, band, or other extracurricular activities. The academies would create “one big high school campus” for the benefit of student and the community overall.



The academies would be available to all students during the 11th and 12th grades; however, students would not be required to participate in an academy program. They would have the option of remaining a traditional high school student.

The following academies are suggested:

Arts Academy – based at River Park Center and Owensboro High School— RiverPark would offer programming aligned to the YATA especially in technical theatre and production areas. RiverPark would

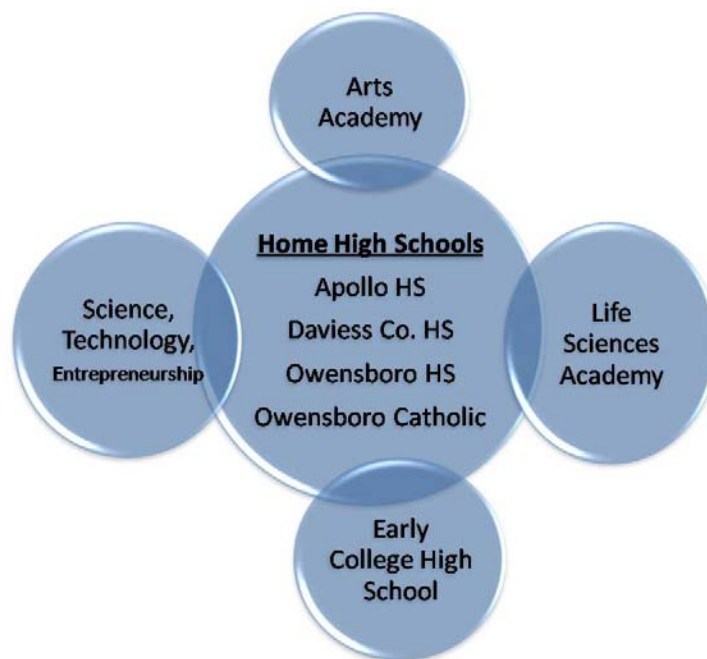
also offer dance in collaboration with local programs. The arts academy at OHS would include drama, music, and creative writing. We would work with the state to align this program to the Governor’s School for the Arts and potentially create—in conjunction with OCTC, KWC, and BU—postsecondary programs of distinction—such as theatre production. The Arts Academy would actively recruit students from outside the area to attend in a residential program downtown.

Life Science Academy—based at Owensboro Medical Health System- Parrish Campus and until that facility is ready—OCTC Downtown Campus. The Life Sciences program would focus on all allied health careers where there are national and regional shortages. Another strand of the program would focus on biotechnology and pharmaceuticals aligned to the emerging biotech industry in Owensboro.



Science- Technology and Entrepreneur Academy- based at Apollo High/ -OCTC Campus behind DCHS/ Advanced Technology Center at OCTC. This school would emphasize technology based approaches to learning using Mechatronics and Project Lead the Way. Another strand of the school curriculum would focus on school based business startups and entrepreneurial skills for students interested in using science and technology as a platform for starting new businesses.

Early College High School- program at OCTC that would give students the opportunity to earn a high school diploma and associate’s degree. Students would attend high school on the OCTC campus. In this option, the student would choose the Early College as a home high school and would not attend or be associated with one of the public high schools.



Funding Issues

Tough decisions will have to be made to deploy the resources necessary to create these programs. Too often we have seen competition for resources among our three public high schools rather cooperation through collaborative efforts, these academies could be funded by reallocating existing resources. To make these multi-district academies a reality, resources must be deployed to support programs more aligned to regional workforce needs. We cannot afford to be territorial. Resources, such as equipment and facilities could be cross utilized among school districts and as well as our colleges and universities. As illustrated in *Two Million Minutes*, the United States has fallen behind countries such as China and India that have more rigorous educational systems that are workforce driven. We need to compete globally, not locally.

Conclusion

This multi-district “one big campus” approach would not eliminate our existing high schools. They would complement each institution while creating alternatives for students to better meet their needs and the needs of our region. In the end, we are blessed with some of the nation’s best school systems, quality school leadership, gifted teachers, and talented kids.

High school reform is under way everywhere in the US. Many agree with Bill Gates that it is the most significant imperative of the economic future in an age of globalization. Efforts focus on state education systems, postsecondary education systems, school districts and schools. Often these efforts are not successful because they are not connected to the employers or the local community. We need a communitywide approach that involves local school districts, high schools, postsecondary institutions, local employers, economic development agencies, and our community. This effort could be a national model for **community directed high school reform**.

The Citizens Committee report illustrated the great societal toll for not meeting student’s needs: lost tax revenue. We know there are other costs not included in the report – increased expenditures for healthcare, corrections, food stamps, subsidized housing and public assistance. We need a highly skilled and qualified workforce to thrive. The time to act is now. High schools are the frontline in the battle for our economic future.

Resources

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