

Dual Enrollment in a High School Career and Technical Center  
as a Strategy to Address the Achievement Gap

Jeffrey Elkner

George Mason University

December 2, 2013

This paper will discuss a process currently underway of re-envisioning and redesigning the Arlington Career Center in Arlington, Virginia. It will consider the community proposal for a new alternative high school program specializing in applied science, technology, engineering and math (STEM) and featuring concurrent enrollment opportunities with Northern Virginia Community College. It will evaluate this proposal with regard to efforts within Arlington Public Schools (APS) since 1997 to eliminate achievement gaps. It will argue that creating dual enrollment programs in which current ACC academic students fully participate is an effective strategy for addressing the achievement gap.

### **Arlington Career Center**

The Arlington Career Center is located near the Columbia Pike corridor in Arlington, Virginia. Built in the 1970s to house career and technical courses for the school system, the site is currently home to an assortment of career and technical education (CTE), academic, and special needs programs.

Despite several other programs moving into the Career Center building recently and a decline in the number of CTE offerings over the last few years, CTE courses continue to make up the majority of courses at the site. More than twenty different programs including animal science, aviation, carpentry, cosmetology, culinary arts, electricity, forensic technology, pharmacy technology, and TV production are available to students throughout the school system (Arlington Public Schools, 2013b). Most students who take these classes ride a bus from their “home school” to the Career Center for one third of their school day.

As part of an effort to bring CTE into the 21<sup>st</sup> century, Arlington Public Schools partnered

with Northern Virginia Community College (NVCC) in 2008 to form the Governor's Career and Technical Academy in Arlington (GCTAA). The GCTAA was created to offer APS students dual enrollment in several Career Center CTE programs. The term “dual enrollment” refers to educational programs in which students are enrolled at both high school and college (Hofmann, 2012). Concurrent enrollment, the form of dual enrollment offered through the GCTAA, provides high school students college-credit bearing courses taught by college-approved high school teachers (National Alliance of Concurrent Enrollment Partnerships, n.d.). Concurrent enrollment offerings at the GCTAA include architectural drawing, automotive technology, early childhood education, emergency medical technology, and web design and development. The program is expanding in school year 2012-13 with concurrent enrolled core academic credits in English and mathematics. (Arlington Public Schools, 2013d).

There are several full day academic programs that also call the Career Center home. Arlington Mill High School (AMHS) grew out of the high school continuation program which existed in Arlington since 1929. It offers students 16 years and older flexibility in scheduling and time frame for earning a high school diploma. Last year AMHS became a diploma granting high school. It moved to its new home in the Career Center building at the start of the 2012-13 school year (Arlington Public Schools, 2013a). Arlington Mill began its own relationship with NVCC at around the same time the GCTAA was created. It has been offering concurrent enrollment classes to its students since 2008 (Arlington Public Schools, 2013c).

The HILT Institute for Academic Achievement and Career Education serves high school English Language Learner (ELL) students (Arlington Public Schools, 2011a). The Academic Academy is an alternative high school program for students in grades 10 through 12 (Arlington

Public Schools, 2012). Teenage Parenting Programs of Arlington Public Schools provides comprehensive services for pregnant and parenting teenagers (Arlington Public Schools, 2013e). The Experienced Based Career Education program provides referred students in grades 12+ with a combination of academic instruction and job internships (Arlington Public Schools, 2012a), and the Supported Work and Transition program provides referred students with supported work experience, and travel and independent living training (Arlington Public Schools, 2012b).

It is in the context of the Arlington Career Center's original CTE mission, the amalgam of programs currently housed in the building, and overcrowding pressure within the school system at large (Brown, 2012) that a group of parents, community members, and ACC staff came together to develop a plan for the future of the Career Center.

### **Proposal for Arlington Tech**

The Career Center Parent Advisory Committee released a proposal on July 25, 2013 titled *Arlington Technical and Professional High School Program: Providing Relevant, Hands-On, Responsive Education Leading to College and Career Success*, which calls for a new alternative high school program at the Career Center. The advisory committee consisted of parents and community members. It conducted focus groups with members of the Arlington community, local businesses, and higher education, and met with staff leaders from the Career Center “to redesign our approaches to technical education in Arlington, and to prepare students for college and careers of the future” (p. 3).

Arlington Tech's curriculum “will specialize in Applied Professionalism – a modern, rigorous, relevant and responsive approach to teaching and learning” (p. 6). The educational

approach will be driven by “project-based and problem-based inquiry: critical thinking, communication, collaborative teamwork, priority-setting, project management, and design-based problem-solving” (pp. 8-9).

The proposal envisions a program that will prepare graduates to “pursue four-year college programs, begin with two-year technical degrees, or work while pursuing higher education or training” (p. 3). It proposes creativity and flexibility in scheduling, stating that Arlington Tech will offer individual, half-day, full-day, after-school, Saturday, and on-line course options (p. 4). It also proposes a central role for dual enrolled classes, stating that “all approaches to participation can feature the dual-enrolled college credits and STEM focus for which Arlington Tech will be recognized” (p. 7).

To make the vision of a project-based curriculum a reality, the proposal calls for building CTE and academic partnerships “between existing Career Center classes and programs through curriculum mapping, integrative lessons, and joint projects across Career Center courses” (p. 9).

### **APS Strategic Goals**

In considering the proposal for Arlington Tech, the School Board will evaluate the new program in the context of the strategic plan. The Arlington Public Schools *Strategic Plan 2011-17: A Long-Range Plan for the Future* lists five strategic goals:

1. Ensure that every student is challenged and engaged.
2. Eliminate achievement gaps.
3. Recruit, retain and develop high-quality staff.
4. Provide optimal learning environments.

5. Meet the needs of the whole child (Arlington Public Schools, 2011b, p. 1).

It is apparent that the Arlington Tech proposal was written with these goals in mind. A rigorous and relevant program helps ensure that students are challenged and engaged. Applied, hands-on learning experiences help provide an optimal learning environment. A program that provides choice for students and is inclusive of diverse interests and skills (Arlington Technical and Professional Program, p. 4) helps meet the needs of the whole child. The need for teachers certified to teach at both the high school and community college levels provides positive pressure for the recruitment, retention, and development of high-quality staff.

How Arlington Tech will address the 2<sup>nd</sup> strategic goal, eliminate achievement gaps, is less clearly evident in the proposal. APS has a proud history of making the elimination of the achievement gap an explicitly stated goal in its last two strategic plans. It also has, as a consequence, years of institutional experience working to meet that goal. The lessons learned from APS institutional practice addressing the achievement gap need to be integrated into the Arlington Tech proposal before it can be fully aligned with the APS strategic goals.

### **The Achievement Gap**

“The achievement gap refers to the different levels of academic performance of students from different racial, ethnic and economic backgrounds” (Educational Testing Service, n.d.). The Arlington Public Schools strategic plan for 2011-2017 states under its 2<sup>nd</sup> goal, eliminate achievement gaps, that “[a]ll Arlington Public Schools students will meet high academic standards and achieve success regardless of race, ethnicity, gender, home or native language, disability, special learning needs, economic background, or other factors that should not be a

predictor of success” (Arlington Public Schools, 2011b, p. 8).

During his 12 year tenure as Superintendent of Arlington Public Schools, Dr. Robert Smith made closing the achievement gap a central goal. Currently serving as associate professor of Education Leadership at George Mason University (GMU), Dr. Smith has continued to write frequently about the topic (George Mason University, n.d. ). In *Gaining on the Gap: Changing Hearts, Minds and Practice*, Dr. Smith and five other APS colleagues and community supporters document their more than decade-long effort to close the achievement gap within APS (Smith et al., 2011).

In chapter 2, “Creating Organizational Conditions to Close Achievement Gaps”, Dr. Smith lists the following five things a school system needs to do to successfully address achievement gaps:

- Admit they have a problem and put the data that demonstrate the problem front-and-center in a form that can be understood easily.
- Measure and report progress consistently.
- Make the goal of eliminating or narrowing gaps a priority for everyone in the organization.
- Distribute equitably resources directed toward achieving the goal.
- Implement interventions that focus on key variables early and consistently. (Smith et al., p. 21)

In her introduction to *Gaining on the Gap* (Smith et al., 2011), Palma Strand presents Dr. Beverly Daniel Tatum's definition of “institutional racism” as encompassing “racial disparities that result from institutional structures and operations.” She says that institutional racism is

“entrenched, intractable, and not easily eradicated” because it results from the cumulative actions of multiple people usually not aware they are perpetuating it (Smith et al., p. 2). The authors of *Gaining on the Gap* make confronting institutional racism the focus of their effort to eliminate the achievement gap, and see this as the most effective way schools can address this challenge.

In chapter five of *Gaining on the Gap* (Smith et al., 2011), Cheryl Robinson, Supervisor of the APS Office of Minority Achievement, states that “[m]any of the remedies designed to eradicate disparities in education have used a deficit model, which blames the victims of inequalities for their current condition”. She lists as an example of a deficit model remedy the “[d]esigning of alternative programs for students rather than creating inclusive environments where administrators and staff are required to meet the needs of students with diverse learning styles and needs” (Smith et al., pp. 86-87). She asserts that deficit model solutions enable failed systems to remain in place and offer temporary remedies that are not in the best interest of children.

### **Career Center Alternative Programs and Institutional Racism**

To the degree that the current alternative programs at the Career Center keep students isolated from educational opportunities and enable low expectations, they meet Ms. Robinson's description of deficit model remedies which perpetuate institutional racism. To the degree that the existence of these programs prevent changes in the home schools that would better meet the needs of students, they enable failed systems to stay in place.

Eliminating these programs, however, and placing students back into mainstream APS academic programs unsupported would do more harm. Students in the ACC alternative programs

are receiving the greater support, focused intervention, and greater resource allocation, including smaller class size, that Dr. Smith calls for as what it means to distribute resources equitably in the effort to eliminate the achievement gap (Smith, et al., 2011, pp. 28-29).

In her doctoral study of the impact of trauma on students at the HILT Institute, Dr. Ann Kennedy found profound psychological impacts resulting from the combined traumas of war, dislocation, and family separation among a large percentage of students in the program (Kennedy, 2000). The counseling and other social services students in the HILT Institute require to move forward in their education need to be continued and extended.

They also need to be combined with higher expectations, greater rigor, and increased support for scholastic success. In *Cultivating Students of Color: Strategies for Ensuring High Academic Achievement in Middle and Secondary Schools*, authors Anyisia Mayer and Shuana Tucker list close monitoring of student's academic and social growth, access to high-quality curriculum, appropriate scaffolding to ensure academic success, academically oriented supportive peer groups, and opportunities for social and emotional growth as the five key strategies for success (Mayer & Tucker, 2010).

### **Dual Enrollment as an Achievement Gap Strategy at Arlington Tech**

A properly designed Arlington Tech offers the possibility to explicitly address the achievement gap by enrolling historically underserved students in challenging courses, by creating pathways for these same students into college, and by merging deficit model programs into an inclusive, innovative high school program that provides students the equitable support they need to succeed.

Historically underserved college students include students of color, low-income students, and first-generation college students (Green, 2006; Virginia's Community Colleges, 2010). Arlington Mill High School, The HILT Institute, Academic Academy, and Teen Parenting programs each have a high percentage of historically underserved students – the very same students who are at the lower end of the achievement gap (J. Allen, personal communication, November 19, 2013). The inclusion of these programs into the design of the new Arlington Tech thus provides Arlington Public Schools with a ready-made opportunity to create a dual enrollment program which is explicitly aimed at addressing the achievement gap.

Among the important indicators of student success discussed in *Gaining on the Gap* is the “percentage of students taking challenging courses” (Smith et al., 2011, p. 22). For high school students, “challenging courses” are defined as Advanced Placement (AP) and International Baccalaureate (IB) courses. There is no mention of dual enrollment classes, of which there were very few offerings during the time period this book addresses. It is almost certain that dual enrolled courses would have been included with AP and IB courses if the book were written about today, however. Dual enrollment offerings have been increasing in schools across the country. President Obama listed promoting dual enrollment as part of his plan to make college more affordable (White House Office of the Press Secretary, 2013). Last year the Virginia State Government passed House Bill 1184, mandating dual enrollment opportunities for high school students in public schools across the commonwealth (Virginia State Legislature, 2012).

There is a strong case to be made that dual enrollment can have advantages over AP and IB, particularly in the context of historically underrepresented students. In an article titled “Dual Enrollment in the Broader Context of College-Level High School Programs”, Kristin

Klopfenstein and Kit Lively state that “perceptions of AP's superiority have arisen from its popularity in top-ranked suburban high schools” and “led to the use of AP in schools where dual enrollment may be a better fit for students” (Klopfenstein & Lively, 2012, p. 59). They mention as advantages of dual enrolled courses that they are less likely to suffer from the “mile-wide-and-inch-deep” charge leveled at AP courses constrained by a standardized exam, and that they offer an increased likelihood of earning college credit (Klopfenstein & Lively, 2012, p. 61).

Taking dual enrolled courses also lets students “try on” the role of being a college student (Karp, 2012), something that may be of particular importance to first generation college students. Senior Research Associates Dr. Elisabeth Barnett from Columbia University Teachers College and Dr. Liesa Stamm from the Rutgers–Camden Center for Children and Childhood Studies assert that there is growing evidence that the opportunity to take college-level courses during high school increases the college participation rate of traditionally underrepresented students, including students who are low-income, racially/ethnically diverse, and first generation college attendees (Barnett & Stamm, 2010). Participation in dual enrollment courses has been positively linked to both high school and college graduation rates (Karp, Huges, Jeong, & Bailey, 2007), and the impact on college degree attainment rates has been found to be higher for students from lower socioeconomic backgrounds (An, 2013).

Dr. Smith lists four factors that can be addressed by schools to counteract the effects of poverty, classism, and racism: expectations of teachers, parents, and students of student achievement; quality of instruction and relationships in the schools; access to educational opportunities and rigor; and parent and community involvement (Smith, 2012). An effective dual

enrollment program at the new Arlington Tech has the potential to address each of the factors on this list.

The process underway to plan and develop the new program has already increased parent and community involvement with the Career Center. By working to help participating students earn college ready scores on the Virginia Placement Test (VPT) for English and the VPT for Mathematics, Arlington Tech could raise expectations of teachers and students, increase quality of instruction, and assure access to educational opportunities and rigor. Passing scores on these tests would assure Arlington Tech students have achieved college readiness before they leave high school and do not need to take remedial courses in college.

As Peter Riley Bahr discusses in his article, *Deconstructing Remediation in Community Colleges: Exploring Associations Between Course-Taking Patterns, Course Outcomes, and Attrition from the Remedial Math and Remedial Writing Sequences*, the majority of students who begin remedial course sequences in math and writing do not attain college-level competency in the subject. Without college-level competency, these students do not graduate from college. Since approximately 60 percent of all students who enter community college are placed in remedial classes (Bailey, 2009), a high percentage of students thus fail to complete college due to a lack of preparation for college-level work at the time they leave high school. Furthermore, underserved students at the lower end of the achievement gap are overrepresented in remedial courses (Bahr, 2011), making the need for remediation a central concern for eliminating the achievement gap. The Arlington Career Center has several resources in place that help prepare students to be college ready and avoid remediation in college, and a well designed Arlington Tech could build on these resources.

ACC has a resident counselor from Northern Virginia Community College who administers the Virginia Placement Test for English to each student in a concurrent enrolled course. Placing into freshman English opens the full range of college course offerings to students. Students with a placement below freshman English can still take selected career and technical courses and receive support in earning a freshman English placement before they graduate from high school. Arlington Mill High School has a staff member who specializes in helping students achieve this goal.

The concurrent enrolled courses at ACC offer increased rigor and heightened academic expectations. They are taught by instructors who have both educational training for teaching in high school and academic qualifications for teaching in a community college. These faculty are thus in a good position to help ACC students make the transition from high school to college.

### **Conclusion**

The integrating of the current Arlington Career Center alternative programs and Arlington Mill High School into an inclusive Arlington Technical and Professional High School Program, while preserving and expanding the special needs support in the current programs, offers a way to turn deficit model remedies into a program that challenges institutional racism head-on. A conscious and explicit focus on the impact of Arlington Tech on Arlington Public School's 2<sup>nd</sup> strategic goal, eliminating the achievement gap, will be necessary to make this happen.

Failure to keep the achievement gap central in the minds of the planners of the new program risks having it become the kind of magnet school program described by Cheryl Robinson on page 92 of *Gaining on the Gap* – a program in which underserved students do not

equitably participate, thus excluding them from the innovative instruction, highly trained teachers, and other educational benefits the program has to offer (Smith et al., 2011). To overlook low participation rates of underserved students in Arlington Tech would be to succumb to institutional racism rather than to challenge it.

It will be essential to report the data on the number of current full time Career Center students who are admitted into the program and who receive passing scores on the Northern Virginia Community College placement tests for English and mathematics and then go on to earn college credits. This data will need to be disaggregated into the categories that comprise traditionally underserved students. Measuring and reporting this data openly and consistently, as called for in Dr. Smith's recommendations, will help assure that the required social and academic support is provided to the Career Center's underserved students. These supports combined with high expectations are the essential ingredients to enable underserved students to succeed, and to help make the new Arlington Tech a model of a dual enrolled high school program which works to eliminate the achievement gap.

## References

- An, B. P. (2013). The impact of dual enrollment on college degree attainment: Do low-SES students benefit? *Educational Evaluation and Policy Analysis*, 35(No. 1), 57-75. doi: 10.3102/0162373712461933
- Arlington Public Schools. (2010). *The Academic Academy*. Retrieved from website: <http://www.apsva.us/site/Default.aspx?PageID=8771>
- Arlington Public Schools. (2011a). *HILT Institute for Academic Achievement and Career Education*. Retrieved from website: <http://www.apsva.us/site/Default.aspx?PageID=8773>
- Arlington Public Schools. (2011b). Strategic plan 2011-17: A long-range plan for the future. Retrieved from website: [http://www.apsva.us/cms/lib2/VA01000586/Centricity/Domain/15/StrategicPlan11-17\\_web.pdf](http://www.apsva.us/cms/lib2/VA01000586/Centricity/Domain/15/StrategicPlan11-17_web.pdf)
- Arlington Public Schools. (2012a). *EBCE: Experience Based Career Education*. Retrieved from website: <http://www.apsva.us/site/Default.aspx?PageID=8775>
- Arlington Public Schools. (2012b). *SWAT: Supported Work and Transition*. Retrieved from website: <http://www.apsva.us/site/Default.aspx?PageID=8777>
- Arlington Public Schools. (2013a). *About Arlington Mill*. Retrieved from website: <http://www.apsva.us/domain/3736>
- Arlington Public Schools. (2013b). *Arlington Career Center Technical Directory*. Retrieved from website: <http://www.apsva.us/site/Default.aspx?PageType=1&SiteID=1964&ChannelID=1974&DirectoryType=6#E>

Arlington Public Schools. (2013c). *Arlington Mill – Dual Enrollment with NOVA*. Retrieved

from website: <http://www.apsva.us/domain/3742>

Arlington Public Schools. (2013d). *Governor's Career and Technical Academy Arlington*

(GCTAA). Retrieved from website: <http://www.apsva.us/page/8797>

Arlington Public Schools. (2013e). *Teenage Parenting Programs of Arlington Public Schools*.

Retrieved from website: <http://www.apsva.us/domain/2837>

Bahr, P. R. (2011). Deconstructing remediation in community colleges: Exploring associations

between course-taking patterns, course outcomes, and attrition from the remedial math

and remedial writing sequences. *Research in Higher Education Research in Higher*

*Education*, 53(2012), 661-693. doi: 10.1007/s11162-011-9243-2

Bailey, T. (2009). Challenge and opportunity: Rethinking the role and function of developmental

education in community college. *New Directions for Community Colleges*, 2009(145),

11-30. doi: 10.1002/cc.352

Brown, E. (2012, February 16). [Web log message]. Retrieved from

[http://www.washingtonpost.com/blogs/virginia-schools-insider/post/arlington-school-officials-update-community-on-plan-to-reduce-overcrowding/2012/02/16/gIOA2iWrHR\\_blog.html](http://www.washingtonpost.com/blogs/virginia-schools-insider/post/arlington-school-officials-update-community-on-plan-to-reduce-overcrowding/2012/02/16/gIOA2iWrHR_blog.html)

Barnett, E., & Stamm, L. Blackboard, Blac609-605-1945kboard Institute. (2010). Dual

enrollment: A strategy for educational advancement of all students. Retrieved from

website: [http://www.blackboardinstitute.com/pdf/Bbinstitute\\_DualEnrollment.pdf](http://www.blackboardinstitute.com/pdf/Bbinstitute_DualEnrollment.pdf)

Educational Testing Service, (n.d.). *Achievement gap*. Retrieved from website:

[https://www.ets.org/k12/research/achievement\\_gap/](https://www.ets.org/k12/research/achievement_gap/)

George Mason University, College of Education and Human Development. (n.d.). *Smith, Robert.*

Retrieved from website: <http://cehd.gmu.edu/people/faculty/rsmithx/>

Green, D. (2006). Historically underserved students: What we know, what we still need to know.

*New Directions for Community Colleges*, 135(Fall 2006), 21-28. doi: 10.1002/cc.244

Hofmann, E. (2012). Why dual enrollment? *New Directions for Higher Education*, 158(Summer

2012), 1-8. doi: 10.1002/he.20009

Karp, M. M., Calcagno, J. C., Huges, K609-605-1945. L., Jeong, D. W. & Bailey, T. R. (2007).

*The postsecondary achievement of participants in dual enrollment: An analysis of student outcomes in two states.* St. Paul, MN: National Center for Career and Technical Education, University of Minnesota.

Karp, M. M. (2012). "I don't know, i've never been to college!" Dual enrollment as a college

readiness strategy. *New Directions in Higher Education*, 158(Summer 2012), 21-28. doi: 10.1002/he.20011

Kennedy, A. A. (2000). *Immigrant adolescents at risk: A story of cumulative trauma.*

(Unpublished doctoral dissertation, George Mason University).

Klopfenstein, K., & Lively, K. (2012). Dual enrollment in the broader context of college-level

high school programs. *New Directions in Higher Education*, 158(Summer 2012), 59-68. doi: 10.1002/he.20015

Mayer, A. P., & Tucker, S. K. (2010). Cultivating students of color: Strategies for ensuring high

academic achievement in middle and secondary schools. *Journal of School Leadership*,

20(July 2010), 470-90.

Smith, R. G. (2012, May 29). [Web log message]. Retrieved from

[http://blogs.edweek.org/edweek/bookmarks/2012/05/book\\_review\\_smith\\_on\\_narrowing\\_the\\_achievement\\_gap.html](http://blogs.edweek.org/edweek/bookmarks/2012/05/book_review_smith_on_narrowing_the_achievement_gap.html)

Smith, R. G., Crawley, A. I., Robinson, C., Cotman Jr., T., Swaim, M., & Strand, P. (2011).

*Gaining on the gap: Changing hearts, minds, and practice*. Lanham: Rowman & Littlefield Education.

National Alliance of Concurrent Enrollment Partnerships, (n.d.). *What is concurrent enrollment?*.

Retrieved from website:

<http://www.nacep.org/about-nacep/what-is-concurrent-enrollment/>

Virginia's Community Colleges, Office of Institutional Research and Effectiveness.

(2010). *Achieve 2015 resource document*. Retrieved from website:

<http://www.nvcc.edu/about-nova/directories--offices/administrative-offices/college-planning/planning/achieve2015resourcedocument.pdf>

Virginia State Legislature, (2012). *Hb 1184 public education: dual enrollment for high school*

*students*. Retrieved from website: [https://leg1.state.va.us/cgi-bin/legp504.exe?](https://leg1.state.va.us/cgi-bin/legp504.exe?121+sum+HB1184)

[121+sum+HB1184](https://leg1.state.va.us/cgi-bin/legp504.exe?121+sum+HB1184)

White House Office of the Press Secretary. (2013). *Fact sheet on the president's plan to make*

*college more affordable: A better bargain for the middle class*. Retrieved from website:

<http://www.whitehouse.gov/the-press-office/2013/08/22/fact-sheet-president-s-plan-make-college-more-affordable-better-bargain->