

Tennessee:

Although its population clusters largely around urban and suburban areas, over 90% of the land area of Tennessee is considered rural.¹ Tennessee's rural schools serve over one-fifth of all school-aged children in the state, well above the 14.7% national average.² While their graduation rates are on par with more urban areas, students in these rural districts often exhibit low NAEP (National Assessment of Educational Progress) outcomes.³ While rural students' AP course enrollment tends to trail behind urban students nationwide, Tennessee lags well behind even the national average of 23% rural student enrollment in these classes - only 10% of Tennessee's rural students enroll in AP courses.⁴ Tennessee has a relatively high rate of rural students who are eligible for free or reduced lunches - 63.9% against a national average of 48.2%.⁵ Schools and districts have worked to find solutions to change these statistics for rural students in the state, often leveraging online and/or blended learning models to increase equity of access to advanced courses, highly effective teachers, and high quality educational content to support individualized instruction.

VITAL Education: Expanding Opportunities in Putnam County

The Virtual Instruction to Accentuate Learning (VITAL) Program supports 23 schools throughout the Putnam County School System in the Upper Cumberland region of Tennessee. While Putnam County itself includes the micropolitan areas of Algood, Baxter, Cookeville, and Monterey (areas that contain more than 10,000 residents

¹ Tennessee Dept. of Health, Article: "Healthy Places: Rural Areas", <https://www.tn.gov/health/article/healthy-places-rural-areas>. Retrieved 11.17.17.

² Rural School and Community Trust, *Why Rural Matters 2015-2016*, 2017, p. 146.

³ *Ibid*, p. 26.

⁴ *Ibid*, p. 146.

⁵ *Ibid*.

but less than 50,000), Putnam County itself serves students across 400 square miles; the rurality of the county increases dramatically outside of these micropolitan areas and beyond the I-40 corridor with transects the county.⁶The student population served by VITAL is comprised of 55% economically disadvantaged students and 5% are classified as English Language Learners. Putnam County reports a 25.2% poverty rate with a disproportionate impact on children; over one in three children live in poverty in the area served by VITAL. Roughly the same percentage (31%) of school-aged children live with a single head of household and the mobility rate indicates that 14% of the population has changed residences in the last calendar year. The Putnam County School System includes ten elementary schools, four middle schools, three high schools, and one adult learning center. The mission of VITAL is to provide the over 11,000 students enrolled in their programs with a “high quality, flexible, technology-based educational opportunity that allows them to maximize their potential to serve and participate productively in 21st century society.”

The VITAL Program

Mr. Sam Brooks serves as the Personal Learning Supervisor for VITAL and Putnam County Schools. VITAL began in 2008 by offering online course options to Putnam County students. Since that time, the program’s offerings have grown exponentially; VITAL’s work spans a wide range of needs and leverages a myriad of edtech tools to meet those goals and to support Putnam County students at all ages and levels:

- Credit Advancement and Credit Recovery - VITAL’s course offerings offer extended access to hard-to-staff classes across Putnam County. This is an invaluable service in an area, like many serving rural students, in which the hiring and retaining of qualified teachers for math, AP or IB, and foreign

⁶ **Economic Research Service: USDA.** *Tennessee - Rural Definitions: State-Level Maps.* Retrieved from https://www.ers.usda.gov/webdocs/DataFiles/53180/25597_TN.pdf?v=39329



language courses is often difficult. When the state of Tennessee added Personal Finance to their diploma requirements for math, VITAL worked with online course vendors to create a class aligned to state standards for Putnam County students. This acceleration allows opportunities for advanced middle school students to begin to accrue high school credits and even supports high schoolers in earning college credits. Due to the flexibility of online learning, students can also take classes to recover credits and stay on track for graduation while still attending traditional classes. Courses are offered every 9 weeks to grades 6-12 through Florida Virtual [School](#), [Edgenuity](#), and Shmoop.

- Dual Enrollment - VITAL's Dual Enrollment Program builds on their partnership with Cookeville Higher Education Campus, Volunteer State Community College, and Tennessee Tech University to allow high school students to take college-level classes and to earn credit at both levels. This work is further supported by Tennessee Promise, the state scholarship and mentoring program which provide two tuition-free years of attendance at a community or technical college in Tennessee. VITAL helps students apply for the scholarship and provides support in helping students find and take classes that align to their individual learning goals. All of these services come together in VITAL Collegiate High School, an early college option for Putnam County students. These wrap-around supports help Putnam County's students close what Tennessee calls "the aspirational gap." In the graduating class of 2016, of ACT-testing students, 80% reported that they aspired to enroll in postsecondary education; of the students who took the ACT, however, only 57% actually did enroll.⁷
- IVC (Live) Distance Learning - VITAL's IVC programming first begun in the fall of 2009 when a USDA Rural Development Services Distance Learning and Telemedicine Grant (USDA RUS) allowed

⁷ ACT. *The Condition of College and Career Readiness 2017:Tennessee*. Retrieved from <https://www.act.org/content/dam/act/unsecured/documents/cccr2017/Tennessee-CCCR-2017-Final.pdf>



for the purchasing of IVC equipment and teacher training. This technology allows the live-streaming of classes from one school to another across the district and in some cases beyond. Classes were first offered in 2010 (AP Calculus A/B, AP Calculus B/C, and Spanish I) and the community responded enthusiastically. Over time, many other classes have been added, allowing Putnam County to increase the reach and impact of some of their finest teachers as well as addressing the need for additional staffing in speciality areas. Mr. Brooks is quick to point out that the technology is useful not only for direct instruction, but also for providing unique learning opportunities via virtual field trips - students can experience places such as the Great Barrier Reef or the Rock and Roll Hall of Fame without leaving the classroom. IVC also offers rural students access to qualified content area experts in hard-to-staff areas; it also allows schools and districts serving rural students to maximize the impact of highly effective teachers beyond their site or building.

- K-12 Personalized Learning - Using tech tools ranging from Google Suite, Canvas, Compass Learning, and Edgenuity, VITAL has been a driver of the shift towards personalized learning across Putnam County. VITAL's latest work involves using digital tools to transform teaching and learning in the traditional classrooms of the schools that it partners with. Teachers work with VITAL to move to a blended and/or flipped classroom model. Students can move at a more individualized pace and receive instruction more targeted to their own learning needs.
- VITAL HomeConnect - In order to address the high rate of mobility in and out of county schools, an issue that disproportionately affects rural and higher-poverty families, VITAL founded HomeConnect, a tuition-free homeschool serving grades K-5. The homeschool model uses a blend of online and print materials to enhance learning. Younger students whose families move for work or due to housing issues

can stay on pace and, if they choose to re-enter the county school system, will return on par with their academic peers. Tennessee's mobility rate for rural students ranks higher than the national average.⁸ The program is entering its second year of implementation.

Supporting the Transformation of Teaching and Learning

While VITAL's passion is serving students, it has become a hub for professional development both in Putnam County and beyond. VITAL provides instructional technology trainings for the 20+ schools in the county; as a Google Certified Trainer himself, Mr. Brooks has been responsible for over 75+ Google Apps for Education professional development trainings for teachers in the Putnam County School district. VITAL also hosts site visits regularly for school and district leaders as well as other in education who are looking to learn from the successes of their program.

When asked what he thinks has been the largest contributing factor to VITAL's success, Mr. Brooks states that building methodically on a solid foundation and striving to meet partners (including teachers, administrators, and students) where they are have both been key. However, keeping the focus on student, says Mr. Brooks, has helped VITAL remain true to its vision and mission across the change and growth of the almost ten years now of VITAL's existence. "Basically, we are student-centered in any choice or conversation where we are making decisions. The question is always, 'How will this impact our students?'"

As always, there are challenges. While technology helps make professional development accessible to more and more teachers, it is difficult to reach all areas. Students are still limited in some school settings in the county by a lack of devices, although the district has set a goal of being completely 1:1 by the year 2018. Going 1:1 will

⁸ Rural School and Community Trust, *Why Rural Matters 2015-2016, 2017*, p. 146.



allow the district to continue their use of blended learning to enhance instruction and outcomes for all of their students. Home Internet access continues to be an issue for rural students in Putnam County who might otherwise benefit from VITAL’s programming; a 2016 report by the Strategic Networks Group found that, “the vast majority of the areas in Tennessee without access are located in rural regions of the state. For example, only 2 percent of urban citizens do not have access to ... broadband connectivity in Tennessee compared to 34 percent of rural citizens.”⁹ Putnam County’s residential usage rates lag behind the statewide average for Internet access, hindering students’ abilities to access online or digital content when they are not on-campus or are working from home.

Success Points

In the first semester after VITAL’s launch, Putnam County School District saw its failure rates decline by one third in the first semester. During the 2013–14 school year, 86% students engaging in the district’s “Smart Lunch” program accrued credits in courses that they would have otherwise failed.¹⁰ The district estimates that between assisting with credit intervention (by allowing students to make up material through virtual formats) or through full credit recovery, VITAL has helped save or recover over than 300 credits in its first four years.¹¹ From 2008 to 2014, VITAL played an integral role in increasing Cookeville High School’s graduation rate from 86% to 94%; during the same time, Putnam County School District’s graduation rate from 86% to 92.6%.¹²

⁹ Strategic Networks Group. *Internet Connectivity and Utilization in Tennessee 2016*. In partnership with the Tennessee Department of Economic and Community Development. Retrieved from https://tn.gov/assets/entities/tacir/attachments/2016August_Tab10_Attachment_B_Internet_Connectivity_and_Utilization.pdf

¹⁰ Tennessee Department of Education. *Virtual Education Report. 2015*. Retrieved from https://www.edweek.org/media/tennessee%20rpt_virtual_education_2015.pdf

¹¹ *Ibid.*

¹² *Ibid.*



Finally, in the years from 2012 to 2015, public high school students in Putnam County reached ELA proficiency levels fully five percentage points higher than the statewide average.

Looking Ahead for Putnam County

VITAL, however, remains firmly committed to helping solve whatever obstacles stand in the way of student learning. Putnam County School District is already piloting some potential access solutions; for example, they are partnering with Kajeet to equip school buses with their SmartBus solution, allowing students to use school-appropriate WiFi while riding the bus to and from school. As with many rural areas, these commutes can extend the school day substantially; some routes in Putnam County's more remote areas can take over an hour for a student to get to school. Students can spend up to 2 ½ hours per school day just in transit. However, recapturing that time as instructional moments can help students stay on pace. Students can complete and turn in homework, work in supplemental curriculum for skill-building, or work on online coursework during the bus ride to and from school. Other initiatives on the horizon work to extend VITAL's own understanding of personalized learning, working to scale the impact of those trainings across the district. Mr. Brooks has tips for anyone looking to innovate: "Start small and build on early successes. Don't try to do it all in a day."

