

Tennessee Technological University

RHCPE GRANT: Health Care Education Access in Rural Tennessee (H.E.A.R.T.)

Tennessee Tech University IN PARTNERSHIP WITH:

1. Upper Cumberland Superintendents Study Council
2. Cannon; Clay; Cumberland; Dekalb; Fentress; Jackson; Macon; Overton; Pickett; Putnam;
Smith; Van Buren; Warren; White Counties
3. Cookeville Medical Clinic
JJ Oakley Campus Health Services
Putnam County Health Department

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Funding requested:

\$2,000,000.00



President of Higher Education Institution
(Fiscal agent)



Project Director (Lead entity)

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Abstract

Tennessee Tech University with The Center for Rural Innovation (TCRI), Whitson-Hester School of Nursing (WHSON), the College of Interdisciplinary Studies (COIS), and the Upper Cumberland Superintendents Study Council (UCSSC) are collaborating to launch the H.E.A.R.T program aimed at expanding the healthcare workforce in the 14 rural and underserved counties of the Upper Cumberland region. This program will address healthcare workforce shortages and provide economic opportunities by creating clear pathways for individuals to enter health care careers, from high school through advanced practice credentials. The program focuses on four key strategies:

1. Career Pathways: Offering dual credit programs and stackable certificates for high school students to prepare them for health care professions.
2. Work-Based Learning: Implementing and expanding apprenticeships, clinical placements, and internships in partnership with local rural healthcare organizations who are committed to provide meaningful learning experiences.
3. Outreach: Developing targeted marketing programs and outreach opportunities to recruit individuals from rural areas, including high school students and adults, into healthcare careers.
4. Stipends: Providing financial support to students to cover education-related expenses, especially for adult learners, to help them complete nursing programs on time.

The H.E.A.R.T. program aims to fill health care gaps, improve access to healthcare for rural citizens in the Upper Cumberland, and promote economic mobility in a region where many counties are economically disadvantaged. The initiative is designed to create long-term, positive impacts on both individuals and the broader community.

Program Proposal

Program Narrative

TN Tech has a rich history of leveraging university resources and expertise to lift the community. It is ideally situated to implement an impactful program that provides pathways to health care careers for individuals in the rural and medically underserved 14 counties of the Upper Cumberland (UC) region. The Tennessee Center for Rural Innovation (TCRI), Whitson-Hester School of Nursing (WHSON), and College of Interdisciplinary Studies (COIS) propose an ambitious plan incorporating all four strategies to expand the health care workforce. The H.E.A.R.T program will fill gaps in medically underserved areas and provide economic upward mobility for individuals entering health care professions. By combining early exposure, flexible educational options, and dedicated support systems, the H.E.A.R.T. program provides a comprehensive initiative to address health care workforce challenges in rural Tennessee by creating transformative opportunities for individuals and communities. The counties included in this initiative are the 14 counties of the UC region, which reside in Central and South-Central Appalachia. These are Cannon, Clay, Cumberland, DeKalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Smith, Van Buren, Warren, and White. Of these 14 counties, 10 are designated as “at risk,” and 12 contain areas of distress for county economic status per the Appalachian Regional Commission for the fiscal year 2025.

The strategies chosen for this program are:

1. **Develop career pathways with documented articulation agreements.** The dual credit program led by the COIS through the School of Professional Studies (SOPS) will provide a 12-credit hour stackable certificate in health care careers in collaboration with the Upper Cumberland Superintendents Study Council (UCSSC) to prepare high school

students to be “ready grads” for health care professions. Services provided by the H.E.A.R.T. program can impact students starting in high school and throughout their journey up to advanced practice credentials at the graduate level—a transition made possible with stackable credentials applicable at every point in the educational ladder.

2. **Develop and implement collaborative, meaningful, and structured work-based**

learning experiences. Work-based learning in the H.E.A.R.T program will include apprenticeships, clinical credit placements, internships, and employment opportunities with the collaborating partners. The relationship already established between the COIS and the UCSSC will include the involvement of Career and Technical Education (CTE) directors within each county to establish new Health and Human Services work-based learning pathways.

3. **Develop outreach programs to recruit Tennesseans into rural health care jobs.**

Targeted outreach programs will encourage high school and adult students in rural areas to pursue health care careers, including nursing.

4. **Provide stipends.** Students often struggle with unexpected expenses required to complete nursing programs. Many adult learners at the post-secondary level do not qualify for state or federal financial aid if returning to a 4-year college. The H.E.A.R.T. program will provide student stipends to cover education-related costs for up to five semesters to increase the likelihood of timely program completion and a seamless transition into the workforce.

Demonstration of Need

As mentioned previously, the UC service area for the H.E.A.R.T program impacts several “at-risk” counties in Tennessee. TN Tech maintains excellent partnerships with the county stakeholders to keep them from sliding back into the “distressed” category. Recent TCRI collaborations have contributed to Clay County’s upgrade from distressed to at-risk. This data highlights the importance of strengthening economic opportunities to prevent further economic decline.

Data from the Upper Cumberland Development District (UCDD, 2022) shows the median per capita income in the region is \$33,572, with a poverty rate exceeding 20%. Many rural communities in the UC region have seen population decline due to limited economic opportunities. In 2020, the region had a total population of 364,494, with 184,308 females and 180,186 males. The demographic breakdown includes 5,797 African Americans (1.59%), 17,573 Hispanics (4.82%), 9,139 individuals identified as Other Non-Hispanic (2.51%), and 331,985 Whites (91.09%). While the primary target group for training programs is individuals aged 15–24, there is a current health care market to engage non-traditional students aged 25–59.

Health care is the fourth-largest employer in the region, with 13,654 employees (UCDD, 2022). Access to health care plays a pivotal role in workforce resilience, not only by keeping employees healthy and productive but also by attracting industries seeking to establish or relocate operations in regions with robust health care systems. This dual role highlights healthcare's importance as both an economic driver and a key workforce support mechanism. All areas of the UC region are classified as Health Professional Shortage Areas (HPSA) for primary care and mental health. Mental health is the most critical need, with an additional projected need for 32 practitioners;

primary care currently needs 1 to 4.74 additional providers to meet the needs in low-income areas (HRSA, 2022).

Education and Workforce Development

Educational attainment in the UC region varies significantly, with bachelor's degree attainment ranging from 12% to over 20% across counties (TNECD County Profiles, n.d.). TN Tech along with Tennessee Colleges of Applied Technology (TCAT), Vol State Community College, and Motlow State Community College, play a vital role in driving these numbers. These institutions provide pathways to higher education, supported by statewide initiatives like Tennessee Promise, Tennessee Hope Scholarship, and Tennessee Reconnect, which increase accessibility to postsecondary education (UCDD, 2022). High school graduation rates in the region range from 80% to 92%, with at-risk counties experiencing lower rates. Workforce development initiatives address these gaps through partnerships between industry leaders and educational institutions, preparing students for careers in high-demand fields. The region's workforce comprises approximately 153,000 individuals, with an unemployment rate below 6% (TNECD, 2023).

Health Care Job Details and Forecast

This proposal seeks to expand training, exposure, and employment opportunities for key health care roles in the UC region. It focuses on Registered Nurses with a Bachelor of Science in Nursing (BSN) (SOC 29-1141.00) and Nurse Practitioners (SOC 29-1171), including Family Nurse Practitioners (FNP) and Psychiatric Mental Health Nurse Practitioners (PMHNP).

The long-term outlook for the health care and social assistance industry is strong. According to Jobs4TN data from the Tennessee Department of Labor and Workforce Development (2024), statewide employment in this sector was 406,682 in 2022, with a projected annual growth rate of

1.85%, resulting in 81,687 new jobs by 2032. Localized data from Transparent Tennessee shows 604 annual job openings for health-related practitioners and technical roles in the UC region, with an additional 245 openings in health care support roles. Registered Nurses make up the top occupation advertised online for January of 2025, with 5529 openings in the state (JOBS4TN, 2025). Additionally, the entire service area qualifies for federal rural health grants, emphasizing the critical need for these roles in the region (HRSA, 2024). Therefore, we can expose students to rural health care within their hometown by partnering with federal rural health clinics (RHC) and federally qualified health centers (FQHC) already operating within the region.

Job Demand

To evaluate the demand for health care occupations in the UC region, we analyzed data from multiple sources, including the U.S. Bureau of Labor Statistics (BLS) for national growth projections and Jobs4TN for regional salary and labor market insights. We then utilized IMPLAN (2024), a leading tool for economic impact analysis, to refine our understanding of regional employment trends and industry specifics. IMPLAN integrates federal, state, and local data, providing detailed insights into workforce dynamics, including employment figures, location quotients (LQ), and salary comparisons specific to the UC region.

Job Projections and Salary Analysis

The analysis of health care employment in the UC region reveals important trends and opportunities across key occupations:

1. Registered Nurses at the BSN Level (SOC 29-1141.00)

In 2022, the UC region employed 2,400 Registered Nurses, reflecting a 1.14% increase since 2019. The location quotient rose to 1.02, indicating a slightly higher regional concentration than

the national average. Entry-level salaries in the UC region are \$39,740, with median salaries at \$62,696, while the Bureau of Labor Statistics reports a state mean salary of \$78,240. With a projected 6% national growth rate through 2033, expanding Registered Nurse programs is vital to meet rising demand and maintain quality health care access.

2. Nurse Practitioners (SOC 29-1171)

Nurse Practitioners in the UC region saw a 25.6% employment increase, rising from 160 in 2019 to 201 in 2022. Despite a slight decrease in the location quotient from 1.03 to 1.02, it remains above the national average. Both Family Nurse Practitioners (FNP) and Psychiatric Mental Health Nurse Practitioners (PMHNP) are included under the same SOC code for this grant. The Bureau of Labor Statistics (2023) reports a Tennessee mean salary of \$103,720 for Nurse Practitioners, with a projected 40% national growth rate by 2033. Expanding Nurse Practitioner training programs is essential to meet this demand and alleviate regional health care shortages in primary care and mental health.

Regional Insights and Comparisons

According to UCDD (2022), the median salary in the UC is \$33,572. The mean salaries for Registered Nurses (\$78,240) and Nurse Practitioners (\$103,720), as reported by the BLS (2023), substantially exceed this figure, offering wages that are more than double and triple the regional median, respectively. These competitive salaries underscore the economic value of these health care roles in enhancing regional economic resilience and workforce stability.

Making the Case for Regional Demand

The selected health care roles are vital to the UC region, with high location quotients indicating their importance in the local labor market. Their competitive salaries, significantly above the

regional median, enhance economic resilience and opportunity. These roles are crucial for meeting immediate workforce needs and supporting long-term financial and health outcomes, underscoring the importance of continued investment in training and education.

Projected Economic Impact Analysis

The TCRI analyzed the 10-year economic impact of the H.E.A.R.T. program on the service region using IMPLAN. The study projects 120 of 140 graduates will secure local health care positions, resulting in a \$54.19 million economic impact, 254 new jobs, and \$25.33 million in labor income, contributing \$31.18 million to the region's GDP. The program is also expected to generate \$2.26 million in tax revenue over a decade, with \$1.65 million benefiting the state of Tennessee. These outcomes highlight the program's role in driving economic growth, job creation, and increased public revenue. Detailed findings are in Appendix A (Executive Summary from IMPLAN).

CIP to SOC Crosswalk Description

The H.E.A.R.T. program is a comprehensive approach to health care pathway expansion, from increasing awareness among high school students to educating compassionate and skilled providers to enter the workforce in high-demand health care fields. The table found in Appendix B displays the CIP to SOC linkages to academic programs to address workplace needs. The program is designed to expand access to dual enrollment opportunities for high school students, motivating them to pursue careers in health care shortage areas. Students can earn up to 12 college credits toward careers such as Registered Nursing and Family or Psych-Mental Health Nurse Practitioner roles. The program addresses critical workforce shortages, equips students with essential skills early, and reduces barriers to entering these high-demand fields by providing

a seamless pathway from high school to careers in health care. This initiative bridges secondary and post-secondary education, fostering a diverse and well-prepared pipeline of future health care professionals. The portfolio of dual enrollment courses is an impressive expansion designed to entice high school students to explore professions in high-need health-related areas and to accumulate college credits leading to high-paying and rewarding careers. The proposed list of courses includes foundational courses to introduce students to health care professions and pioneering offerings such as NURS4240/CHE4245 Clinical Immersion for Health Care Innovation. This course brings nursing, pre-professional health, and engineering students together for customer discovery and new device design to improve health outcomes. Dual-enrolled students will engage with nursing concepts, Design Thinking, and low-budget prototyping. Additionally, the course will involve visits to nursing simulation labs and the engineering design labs at TN Tech. These courses can spark early interest in the BioSTEM, and Health and Human Services (nursing, Pre-med) Improving Society career training cluster.

Program Plan

The H.E.A.R.T. program creates a new dual enrollment health care certificate that will provide transferable credits toward university degrees. The COIS and SOPS will lead the partnership between the UCSSC and TN Tech to create the health care certificate, which includes targeted courses to expose students to an engaging array of stackable courses for health care professions (See Appendix B). Student enrollment for dual credit projection is YR1-20 students, Y2-40 students, and then a 10% increase for Y3-4. Secondly, with our UCSSC partners, we will expand health care WBL opportunities in our region for secondary students to increase exposure to the available health care careers with our clinical partners. Additional clinical partners will be secured in years 2 through 4 to further expand these WBL opportunities as outlined in the Project

Timeline found in Appendix C. The WHSON offers a hybrid accelerated BSN (ABSN) program for adult learners entering the profession; a fully online associate degree to bachelor's degree (RN-BSN) program, providing two seamless pathways to a four-year nursing degree. Grant funds will help to provide marketing development, qualified faculty, and administrative assistance to expand these flexible options for adult learners. These programs attract adult working professionals to return to college to increase opportunities for employment and promotion in the health care field. Goals for our enrollment will be an additional 30-40 students per year in all programs. This will be a target of 140 students total in Y1-4. Tracking will occur at BSN and APRN (FNP/PMHNP) levels, high school dual enrollment certificate completed, and WBL placements. Employment placements will also be tracked with a 75% rural county placement as a goal. Stipends awarded will also be reported in year-end numbers. The TN Tech Office of Academic Affairs joined the First-Gen Forward Network, and currently, 20% of students at the university are listed as First-Generation attendees. TN Tech's goal is to increase outreach and enrollment of First-Gen students. The H.E.A.R.T. program will expand outreach efforts and contribute to the mission of TN Tech.

Most individuals who chose the ABSN and the RN-BSN degree programs plan to pursue advanced degrees (nursing administration, advanced practice registered nursing roles (FNP and PMHNP)). These accredited programs at the undergraduate and graduate levels do not qualify students for state or federal financial aid. Scholarships are available but scarce, the stipends will help to offset the cost of uniforms, equipment, textbooks, and exam fees. WHSON has a reputation for quality graduates and expert faculty, with our first-time pass rate at 96.99% on the NCLEX exam for 2024, with the national average at 92.1% per National Council of State Boards

of Nursing (NCSBN) statistics. Additionally, our certification rate for APRNs was 98% compared to the 86% national average in 2023.

The WHSON has already initiated an outreach program entitled “Feature Fridays” that invites regional high school students interested in health care related professions to come to our campus and “experience” being a nurse in our simulation labs. This outreach will be expanded to include community college students and adult learners wanting a health care career. By using grant funds to purchase additional simulation equipment, supplies, travel, and part-time lab personnel to assist in the outreach activities, we can accommodate more groups to engage in career exploration. Targeted outreach programs will encourage adults in rural areas to pursue health care careers including nursing. WHSON has an established reputation for training highly skilled and compassionate graduates who are sought after by employers across the state. The H.E.A.R.T. program funding will boost supportive messaging campaigns (“Nursing needs you!” and “It’s never too late to become a Nurse”) targeting both high school and adults considering career options. Public service announcements on social media and local radio and television will highlight the benefits of nursing and health care-related careers, including financial stability, flexible schedules, and the pride of belonging to the most ethical and respected profession. In addition, advertisements placed in rural towns will highlight success stories of adults who transitioned to nursing later in life and high school students who transitioned from dual enrollment to successfully obtaining BSN degrees. Funding will support informational booths at community events and fairs, including hands-on experiences with portable simulation equipment to engage the public in the role of the nurse.

The H.E.A.R.T. program leaders will work with current CTE directors in each county to expand and create new opportunities for WBL within the Meta Cluster Improving Society in the Health

and Human Services track. Per the superintendent committee, there is currently a greater demand by students for health care related WBL opportunities than there are placements. The project director is Dr. Jennifer Mabry, and the steering committee members are Dr. Melissa Geist, Dr. Dennis Tennant, Dr. Michael Aikens, and Clay Kelsey. The steering committee, community partnerships, and eventual articulation agreements will strengthen the collaboration with the K-12 system and community colleges in the UC. The collaboration will also include stakeholders in rural health who can accommodate clinical experiences, summer internships, and employment opportunities upon graduation from these programs. The collaborating partners have rural health clinics, public health offices, and federally qualified medical homes established in the 14 counties in the region. A detailed quarterly project timeline proposal can be found in Appendix C (Project Timeline and Overview).

Strength of Partnership

The H.E.A.R.T. program will partner with the UCSSC (see Appendix D: Letters of Support) to implement and support the proposed dual enrollment and WBL opportunities for expanding health care careers in the UC region. This K-12 partnership with a Healthcare Coordinator from TN Tech and the SOPS will recruit and enroll eligible students who want to pursue a certificate in health care careers. This certificate will transfer stackable credits to the current bachelor's degree within the CIP code of 51.38 (Registered Nursing) offered at TN Tech.

Cookeville Medical Clinic RHC, Putnam County Health Department, and JJ Oakley Campus Health Services at TN Tech will also partner with the H.E.A.R.T. program to provide local and regional workforce and WBL opportunities through clinical experiences, mentoring, internships,

and employment opportunities to those students who are dedicated to remaining in the UC region beyond graduation.

The TCRI will provide oversight for economic predictions and development, administrative grant support, and direction for regional marketing. TN Tech University, specifically the WHSON and the TCRI, will be the lead partners to fund the project director, manage grant funds, collaborate with the WHSON and COIS deans and directors, administer student stipends, and track student clinical experiences and employment after graduation.

The strength of these partnerships is due to the diversity and collective commitment to health care expansion in our region, as noted within the letters of support (Appendix D). The project directors have been successful with federal and state funding. The directors will facilitate meetings, oversee marketing and outreach efforts, and comply with required reporting structures. TN Tech and TCRI have experience in grant management and economic development and have successful programs currently in use. TN Tech conducts over \$40 million in annual research, and TCRI manages and deploys \$3 million in annual research and economic development initiatives from state, federal, and private funding sources. The project directors have experience with federal and state grant funding procurement and management within WHSON and SOPS. Together they will provide enrollment tracking, stipend award data, WBL opportunity expansion, and forecasting. The SOPS also has a proven history of expanding and managing dual enrollment courses and has an established relationship within the K-12 regional community. This initiative will utilize existing courses taught online at TN Tech and are stackable to provide transferable credits toward a health care career.

Sustainability

A multifaceted strategy will maintain H.E.A.R.T. operations, emphasizing recruitment, retention, and successful integration of individuals into the nursing workforce beyond the grant funding period. Our strategic sustainability plan focuses on three key areas: diversifying funding sources, enhancing recruitment efforts, and participating in advocacy and policy development to support funding for nursing education at the state and federal levels.

1. Diversifying funding sources. This funding opportunity will provide proof of concept demonstrating the effectiveness of the H.E.A.R.T. Program. The project team will use success stories and data to pursue other grant opportunities at the state and federal levels. Organizations providing health care services to individuals and families in underserved areas will benefit directly from the pipeline of highly trained baccalaureate and advanced practice nurses. By collaborating with these organizations to secure scholarships or sponsorships, TN Tech can continue to ease financial barriers (i.e., living expenses, books, equipment, and licensure and certification costs) that hinder rural students' ability to enter the health care workforce.

Another funding stream is through alumni contributions. By managing and nurturing relationships with students and alumni, the H.E.A.R.T. team will foster a "pay it forward" culture among the program participants. The messaging will encourage alumni to give what they can to keep rural Tennessee communities healthy. This approach should resonate with H.E.A.R.T. alumni because most will continue to live, raise families, and work in the UC; they will directly benefit from having access to a robust health care workforce.

2. Enhancing recruitment efforts. A seamless pipeline of students from high school dual enrollment offerings to the BSN and MSN programs and enhanced marketing resources will

increase enrollment. The tuition dollars will provide funding to continue the initiatives started by the H.E.A.R.T. team to increase the number of bachelor's-prepared nurses and primary care and mental health nurse practitioners who care for individuals in the rural UC region.

3. Advocating for funding at the state and federal levels. Collaborating with policymakers to emphasize the importance of nursing education in addressing health care shortages can lead to additional funding opportunities and supportive policies. National professional organizations such as the American Association of Colleges of Nursing (AACN) and the American Nurses Association (ANA) lead sustained efforts to secure federal support for nursing education. The H.E.A.R.T. team will collaborate with local, state, and federal stakeholders to increase the resources necessary to produce skilled nursing professionals to meet growing health care needs in rural Tennessee.

Appendices

Appendix A: IMPLAN Executive Summary for Labor Market



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Executive Summary

The Tennessee Center for Rural Innovation (TCRI) conducted an economic impact analysis of the HEART program over a 10-year period, focusing on its projected effects on the healthcare sector in the Upper Cumberland (UC) region of Tennessee. The analysis, based on IMPLAN findings, reveals potentially substantial economic and tax benefits resulting from the program, including job creation, increased labor income, GDP growth, and contributions to local, county, and state tax revenues.

Key economic findings include supporting 254 jobs, \$25.33 million in labor income, \$31.18 million added to the region's GDP, and a total economic output of \$54.19 million. The impact is broken down into three categories:

1. **Direct Impact:** The immediate effect of employing 120 healthcare workers through the HEART program, generating \$33.56 million in total regional economic output.
2. **Indirect Impact:** Secondary effects from suppliers and supporting industries, with a total regional economic output of \$7.3 million.
3. **Induced Impact:** Broader economic effects from increased spending by employed individuals, resulting in \$13.33 million in regional economic output.

The **tax results** further emphasize the program's regional benefits. Over the 10 years, the grant will generate a total of \$2,258,556 in tax revenue across different levels of government. The breakdown includes:

- **City:** \$153,321
- **Sub-County Special Districts:** \$13,455
- **County:** \$437,938
- **State:** \$1,653,843

The total tax revenue generated by the direct, indirect, and induced impacts shows the potential contribution of the program to local and state resources, supporting both economic growth and public sector funding. These results illustrate how the HEART program not only strengthens the healthcare workforce but also fosters broader economic development and community support in the region.



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Methodology

To assess the projected economic impacts of the HEART program over a 10-year period, the TCRI conducted an impact analysis using IMPLAN, the industry standard tool for economic impact assessment. TCRI, a nationally recognized research and economic development center at Tennessee Tech University since 2017, has analyzed over \$2.5 billion in public and private assets for government, public, and private sectors, with a strong focus on rural initiatives and advocacy. For this analysis, we assumed that 120 out of 140 projected graduates (75%) would secure employment within the Upper Cumberland (UC) region, which spans 14 counties in Tennessee, over the entire 10-year period beginning in 2026. The 75% employment rate was chosen as a conservative estimate, acknowledging the possibility that not all graduates may find employment within the UC region.

Salary Assumptions

The projected salary for each graduate is based on mean wages reported by the Bureau of Labor Statistics (BLS). The BLS indicates a mean annual salary of \$78,240 for 75 Registered Nurses at the BSN level (SOC 29-1141.00) and a mean annual salary of \$103,720 for 60 Nurse Practitioners, including Family Nurse Practitioners and Psychiatric-Mental Health Practitioners¹.

Economic Modeling with IMPLAN

The analysis was conducted using IMPLAN, an industry-standard economic impact assessment tool that models the effects of economic changes on a given region². IMPLAN uses a system of input-output analysis to simulate how direct employment additions within a given industry sector affect local and regional economies. Specifically, IMPLAN estimates the ripple effects, including direct, indirect, and induced impacts:

- **Direct Impact:** The immediate effect of employing new healthcare workers each year, with cumulative totals of 120 new positions within the UC region over the 10-year period.
- **Indirect Impact:** The increase in healthcare positions leads to greater demand from organizations employing these workers, as they purchase additional goods and services from local suppliers and other related industries to support their operations.
- **Induced Impact:** The broader economic effects resulting from the increased spending by healthcare workers, who contribute to the local economy through their wages. This includes spending on housing, retail, and services, as well as the taxes they pay, further supporting public resources and community development.

Each year's graduates were modeled with employment compensation events in IMPLAN to account for the annual addition of graduates at their respective projected mean salaries. Projections were based on



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IMPLAN's industry code 490 to best capture the economic effects associated with these positions in the healthcare industry. This modeling approach allowed the study to capture cumulative effects over time, illustrating how the economic footprint of the program grows as graduates enter the workforce and continue employment over 10 years within the region.

Economic Indicators

To understand the full scope of the program's impacts, we aggregated the following economic indicators, which IMPLAN models for regional effects. These metrics capture direct, indirect, and induced economic effects specific to the healthcare sector:

- **Employment:** Measures the total number of jobs supported in the region as a result of the program. This includes direct employment of healthcare workers, jobs created in supporting industries (indirect), and jobs sustained by increased spending in the community (induced).
- **Labor Income:** The total income (wages, salaries, and benefits) generated for workers as a result of the program's economic activity, indicating increased financial stability within the workforce.
- **Value Added (GDP):** Represents the contribution to the regional Gross Domestic Product (GDP) and shows the program's effect on economic growth by adding value to the healthcare sector.
- **Output:** The overall economic activity generated, combining all spending associated with the program's impact on the local economy.

Tax Implications

The analysis also estimated the tax revenues generated at various government levels, including:

- **Sub-County General:** General revenue generated at the municipal or local level.
- **Sub-County Special Districts:** Revenue for specific local service districts that may include healthcare, public safety, or education programs.
- **County:** Total tax revenue collected at the county level.
- **State:** Revenue generated for the state of Tennessee, showing the impact of the program on state-level resources.



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Table 1.

Economic Indicators

Impact	Employment	Labor Income	Value Added (GDP)	Output
1 - Direct	120	\$19,263,385	\$20,280,851	\$33,556,614
2 - Indirect	54	\$2,303,368	\$3,318,585	\$7,301,366
3 - Induced	81	\$3,759,945	\$7,579,198	\$13,333,338
Total	254	\$25,326,697	\$31,178,635	\$54,191,318

Tax Results

Table 2 outlines the tax results associated with the grant's projected 10-year impact, showing how it will contribute to local, county, and state tax revenues. The total tax revenue generated by the output of the grant is expected to reach \$2,258,556, with significant contributions at various levels: \$153,321 for the city, \$13,455 for sub-county special districts, \$437,938 for the county, and \$1,653,843 for the state. The following is a breakdown of how these tax impacts translate:

- **Direct Impact:** The grant workforce output generates \$66,387 in tax revenue for cities, \$5,826 for sub-county special districts, \$190,562 for the counties within the Upper Cumberland, and \$692,977 for the state of Tennessee, totaling \$955,752 in tax revenue.
- **Indirect Impact:** Through secondary economic activities, an additional \$19,202 is generated for cities, \$1,685 for sub-county special districts, \$54,747 for counties, and \$212,102 for the state, bringing the total to \$287,736.
- **Induced Impact:** Increased spending from employees and businesses produces \$67,731 in taxes for cities, \$5,944 for sub-county special districts, \$192,629 for counties, and \$748,765 for the state, resulting in a total of \$1,015,069.

This shows how the grant not only drives job creation and economic growth but also contributes significantly to local and state tax revenues, benefiting the broader community.



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Findings

The grant's projected 10-year impact on the region highlights both substantial economic and tax benefits, particularly within the healthcare sector. The economic impact includes job support, labor income, GDP growth, and total output, while the tax results show contributions to local, county, and state revenues. Together, these findings demonstrate how the grant will drive both economic development and public sector support.

Economic Indicators

The grant's projected 10-year impact, illustrated in Table 1, demonstrates economic benefits for the healthcare sector, including support of 254 jobs, \$25.33 million in labor income, \$31.18 million added to the region's GDP, and a total economic output of \$54.19 million. The following is a detailed breakdown of how these economic indicators translate to real-world effects:

1. **Direct Impact:** This represents the immediate benefits created by the grant, including the creation of 120 jobs within the healthcare sector. These positions contribute to a labor income of approximately \$19.26 million, adding \$20.28 million to the region's GDP and generating a total output of \$33.56 million. This direct impact encompasses the support of jobs and services output by the grant, such as hiring healthcare professionals and supporting the local economy.
2. **Indirect Impact:** This measures the secondary effects on the local economy, such as suppliers and other businesses that support the healthcare sector. It accounts for support of 54 additional jobs, contributing \$2.3 million in labor income and \$3.32 million in value added to the GDP, with a total output of \$7.3 million. For example, medical supply companies or maintenance services benefit from increased demand due to the grant's workforce output.
3. **Induced Impact:** These are the ripple effects of increased spending by those directly and indirectly employed. As healthcare workers and supporting businesses spend their income in the local economy, it leads to the support of 81 jobs. This spending boosts labor income by \$3.76 million, adds \$7.58 million to the GDP, and results in an overall output of \$13.33 million. This might include increased business for local restaurants, retail stores, and other services.

In essence, this grant not only enhances the healthcare workforce but also stimulates broader economic growth by supporting jobs and increasing spending in the community. This holistic impact demonstrates how investing in healthcare yields benefits that extend beyond patient care, fostering overall regional development.



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Table 2.

Tax Results

Impact	City	Sub County Special Districts	County	State	Total
1 - Direct	\$66,387	\$5,826	\$190,562	\$692,977	\$955,752
2 - Indirect	\$19,202	\$1,685	\$54,747	\$212,102	\$287,736
3 - Induced	\$67,731	\$5,944	\$192,629	\$748,765	\$1,015,069
Total	\$153,321	\$13,455	\$437,938	\$1,653,843	\$2,258,556

Assumptions and Limitations

Assumptions

- **Continuous Employment:** The analysis assumes that all retained graduates remain continuously employed in their respective healthcare field position in the specified region for the entire 10-year period.
- **2025 Dollars:** All financial impacts are calculated in 2025 dollars, assuming a static economic environment without adjustments for inflation, wage increases, or market changes over the decade.
- **Bachelor's Degree Salary:** Projected salaries are based on the Bureau of Labor Statistics' mean wage. This conservative estimate does not account for potentially higher or lower wages that different employers might offer.

Limitations

- **Market Variability:** The analysis does not account for potential shifts in the healthcare labor market, such as changes in demand, funding, or employment rates in the field.
- **Salary Adjustments:** Wage growth over the 10 years is not factored in, meaning actual impacts could vary if salaries increase or decrease due to inflation, cost-of-living adjustments, or other economic factors.
- **Regional Economic Dynamics:** The analysis uses a consistent economic model, but actual regional impacts may differ based on the local economy's responsiveness to workforce changes in the healthcare sector.



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Footnotes

1. U.S. Bureau of Labor Statistics. (2023). May 2022 state occupational employment and wage estimates: Tennessee. Retrieved January 16, 2025, from https://www.bls.gov/oes/current/oes_tn.htm#29-0000
2. IMPLAN® model, 2024 Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (data and software), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078
www.IMPLAN.com

Appendix B: CIP to SOC Crosswalk Table

TN Department of Education Meta Cluster	Program of Study (CIP)	TN Tech Collaborating Academic Departments	TN Tech Dual Enrollment Courses for 12-Credit Hour Certificate	Educational Opportunities to fill high demand positions (SOC)
Improving Society: Health and Human Services	CIP codes: 51.38 Registered Nursing 51.3805 Family Nurse Practitioner 51.3810 PMHNP 51.3203 Nursing education 51.3102 Clinical Nutrition/Nutritionist 51.2201 Public health, General 51.0701 Health Administration	Whitson-Hester School of Nursing College of Arts and Sciences: Department of Sociology and Criminal Justice School of Human Ecology College of Interdisciplinary Studies	1. NURS 2240 Community Health Worker 2. NURS 2300 Introduction to Professional Nursing 3. HEC 1030 Introduction to Nutrition 4. CJ 4250 Drugs and Behavioral Psychology 5. LIST 2093 Service Learning (health care) 6. PRST 3230 Intro to Public Health 7. LIST 3600 Concepts of Care giving 8. NURS 4993 Healthcare Delivery in the US (Policy)	BSN 29-1141 ADN to BSN (RN-BSN) Accelerated BSN program The BSN is the entry degree for the MSN (FNP or PMHNP) Nurse Practitioner (29-1171)

Appendix C: Project Timeline and Overview

Table 1: Timeline for H.E.A.R.T Implementation-Quarterly			
Dates	Project Activities	Milestones	Evaluation
Q1-Y1 Aug-Oct 2025 FA25	<ul style="list-style-type: none"> -Planning for purchasing supplies, networking -Planning for EPSO enrollment in SP26 -Revise online courses for EPSO and NURS -Planning website, social media presence-marketing -Network with partners and potential new partners in Upper Cumberland region with Healthcare Coordinator -COIS and OPS to collect data for First Gen -COIS and OPS to collect data for enrollment in EPSO for SP26 	<ul style="list-style-type: none"> -Meeting of partners (1) -Meeting of HEART group (1) -HEART program website and Facebook page created -Graphic design creation for program -Courses promoted to K-12 and adult learners for SP26 	Co-PIs to be responsible for meetings Project director to track data and budget with Financial Admin COIS/WHSON to market programs
Q2 Nov 2025-Jan 2026 FA25-SP26	<ul style="list-style-type: none"> -Create education and awareness materials for distribution at events -Visit multiple sites in Upper Cumberland for recruitment -Meet with graphic design team for strategic marketing and brand promotion -Meet with Stonecom communications, WCTE, and TN Tech Marketing to develop digital and broadcast media campaigns Creation of WBL opportunities with partners in conjunction with the CTE directors in Upper Cumberland 	<ul style="list-style-type: none"> -Education materials created -Marketing materials and graphic design approvals complete -Report submitted to THEC 	Number of sites visited, and number of events scheduled for future HEART team. Number of visits to social media sites and webpages Number of enrollees-goal is 20 first semester in EPSO
Q3 Feb 2026-April 2026 SP26	<ul style="list-style-type: none"> -Increase number of participating partners-Rural health jobs and clinical placements - Visit multiple sites in Upper Cumberland for recruitment -Record videos at WCTE studios, radio programming -Collect/enter information in tracking system -Collect and enter data, stories, etc. -Begin data analysis as needed -Continued implementation of HEART program -Expansion and new Creation of WBL opportunities in Health and Human services with partners in conjunction with the CTE directors in Upper Cumberland 	<ul style="list-style-type: none"> -HEART information table at health events, K-12 locations, and other community locations -Face to Face meetings with Partners/leaders -Community partners added to schedule of events -Create testimonials and information videos in collaboration with WCTE and TCRI. -Air first videos on radio, TV, social media, and HEART website -Mid year cycle reports submitted to THEC -Student targets-20 EPSO and 20 Nursing enrollees 	<ul style="list-style-type: none"> -Number of events with HEART team -Number of participants at events (headcount) -Number of new WBL sites created for K-12 students in healthcare -Number of invitations to present (to present at conferences) -Enrollment data -Number of visits to Facebook and social media sites

Q4 May 2026- July 2026 SU26	-Continue Implementation of HEART program via face-to-face and web-based events -Stipends for faculty for summer workload to revise courses as needed in EPSO and RN-BSN programs for improved accessibility -Coordinate and look for faculty development/admin development opportunities for 2027 -Continued relationship-building with existing partners; add partners via network chain-referral -Collect/enter information in tracking system -Collect and enter data, stories, etc. -Ongoing data analysis -COIS and OPS to collect data for First Gen -COIS and OPS to collect data for enrollment in EPSO for FA26 -Reevaluate educational priorities and needs for partners, community members, K-12 admin, and adult learners - Begin to redevelop materials based on new priorities	-HEART information table at health events, K-12 locations, and other community locations -Community partners added to schedule of events -Create testimonials and information videos in collaboration with WCTE and TCRI. -Air first videos on radio, TV, social media, and HEART website -year-end report submitted to THEC -Report project impact to stakeholders and State Agencies, etc.	-Number of events with HEART team -Number of participants at events (headcount) -Event participant and completion data for SP26 -Number of visits to social media sites
	BEGIN YEAR 2		
Q1 Aug- Oct 2026 FA26	-Planning for EPSO and NURS enrollment in SP27 -Revise online courses for EPSO and NURS as needed -Recruitment of current and former students to be “ambassadors” for the program for marketing and social media push. -Planning website, social media presence-Marketing -Network to partners and potential new partners in Upper Cumberland region with Healthcare Coordinator -COIS and OPS to collect data for First Gen -COIS and OPS to collect data for enrollment in EPSO for SP27 -Nursing to collect data for enrollment in SP26 and SU26	-Formative and Summative Assessments on Progress -Reports submitted to THEC -Meeting of partners (1) -Meeting of HEART group (1)	Continue to have Co-PIs to be responsible for meetings Project director to track data and budget with Financial Admin COIS/WHSON to market programs
Q2 Nov 2026- Jan 2027 SP27	- Revise education and awareness materials for distribution at events if needed -Visit multiple sites in Upper Cumberland for recruitment -Video messages and social media blasts -Recruitment of current and former students to be “ambassadors” for the program for marketing and social media push. -TN Tech Marketing to update social media and graphic design outreach programs -Creation of WBL opportunities with partners in conjunction with the CTE directors in Upper Cumberland -Collect/enter information in tracking system -Collect and enter data, stories, etc.	-New education and awareness materials developed if needed -New recorded on-demand training available -Quarterly reports submitted to THEC	Number of sites visited, and number of events scheduled for future HEART team. Number of visits to social media sites and webpages Number of enrollees-goal is 40+ per semester in EPSO. 40+ in Nursing (all programs) for year.
Q3 Feb 2027- April 2027 SP27	-Continue Implementation of HEART program via face-to-face and web-based events -Continued relationship-building with community partners and stakeholders -Collect/enter information in tracking system -Collect and enter data, stories, etc. -COIS and OPS data track for EPSO SP27-forecast FA27 -Nursing data track for enrollment SP27-forecast SU27	-HEART information table at scheduled health events, K-12 locations, and community events -Face to Face meetings with Partners/leaders -Community partners added to schedule of events -Create testimonials and information videos in collaboration with WCTE and TCRI.	-Number of events and sites visited -Number of participants at events (headcount) -pre/post knowledge survey results -Number of visits to social media sites

		<ul style="list-style-type: none"> -Air videos on radio, TV, social media, and HEART website -Mid year cycle reports submitted to THEC -Report project impact to stakeholders and State Agencies, etc. 	
Q4 May 2027- July 2027 SU27	<ul style="list-style-type: none"> -Continue Implementation of HEART program via face-to-face and web-based events -Continued relationship-building with existing partners -Collect/enter information in tracking system -Collect and enter data, stories, etc. -Ongoing data analysis -Share success stories with stakeholders, community, and other state and national outlets 	<ul style="list-style-type: none"> - HEART information table at events and community locations - Air testimonial and information videos on social media, radio, and WCTE - Quarterly reports submitted to THEC -Report project impact to stakeholders and State Agencies, etc. -Year-end reports as needed 	
	BEGIN YEAR 3		
Q1 Aug-Oct 2027 FA27	<ul style="list-style-type: none"> -Planning for EPSO and NURS enrollment in SP28 -Revise online courses for EPSO and NURS Recruitment of current and former students to be “ambassadors” for the program for marketing and social media push. -Planning website, social media presence-Marketing -Network to partners and potential new partners in Upper Cumberland region with Healthcare Coordinator -COIS and OPS to collect data for First Gen -COIS and OPS to collect data for enrollment in EPSO for SP28 -Nursing to collect data for enrollment in SP27 and SU27 	<ul style="list-style-type: none"> -Formative and Summative Assessments on Progress -Reports submitted to THEC -Meeting of partners (1) -Meeting of HEART group (1) 	Continue to have Co-PIs to be responsible for meetings Project director to track data and budget with Financial Admin COIS/WHSON to market programs
Q2 Nov 2027-Jan 2028 SP28	<ul style="list-style-type: none"> - Revise education and awareness materials for distribution at events if needed -Visit multiple sites in Upper Cumberland for recruitment -Video messages and social media blasts -Recruitment of current and former students to be “ambassadors” for the program for marketing and social media push. -TN Tech Marketing to update social media and graphic design outreach programs -Creation of WBL opportunities with partners in conjunction with the CTE directors in Upper Cumberland -Collect/enter information in tracking system -Collect and enter data, stories, etc. 	<ul style="list-style-type: none"> -New education and awareness materials developed if needed -New recorded on-demand training available -Quarterly reports submitted to THEC 	Number of sites visited, and number of events scheduled for future HEART team. Number of visits to social media sites and webpages Number of enrollees-goal is 40+ per semester in EPSO. 40+ in Nursing (all programs) for year.
Q3 Feb 2028-April 2028	<ul style="list-style-type: none"> -Continue Implementation of HEART program via face-to-face and web-based events -Continued relationship-building with community partners and stakeholders -Collect/enter information in tracking system -Collect and enter data, stories, etc. 	<ul style="list-style-type: none"> -HEART information table at scheduled health events, K-12 locations, and community events -Face to Face meetings with Partners/leaders 	<ul style="list-style-type: none"> -Number of events -Number of participants at events (headcount) -Number of visits to Social media

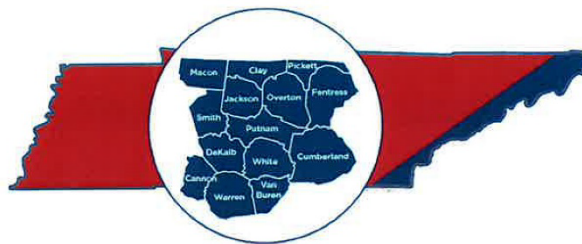
SP28	<ul style="list-style-type: none"> -COIS and OPS data track for EPSO SP28-forecast FA28 -Nursing data track for enrollment SP28-forecast SU28 	<ul style="list-style-type: none"> -Community partners added to schedule of events -Create testimonials and information videos in collaboration with WCTE and TCRI. -Air videos on radio, TV, social media, and HEART website -Mid year cycle reports submitted to THEC -Report project impact to stakeholders and State Agencies, etc. 	
Q4 May 2028- July 2028 SU28	<ul style="list-style-type: none"> -Continue Implementation of HEART program via face-to-face and web-based events -Continued relationship-building with existing partners -Collect/enter information in tracking system -Collect and enter data, stories, etc. -Ongoing data analysis -Share success stories with stakeholders, community, and other state and national outlets 	<ul style="list-style-type: none"> - HEART information table at events and community locations - Air testimonial and information videos on social media, radio, and WCTE - Quarterly reports submitted to THEC -Report project impact to stakeholders and State Agencies, etc. -Year-end reports as needed 	<ul style="list-style-type: none"> -Number of events -Number of participants at events (headcount) -Number of visits to Social media
	BEGIN YEAR 4		
Q1 Aug- Oct 2028 FA28	<ul style="list-style-type: none"> -Planning for EPSO and NURS enrollment in SP29 -Revise online courses for EPSO and NURS Recruitment of current and former students to be “ambassadors” for the program for marketing and social media push. -Planning website, social media presence-Marketing -Network to partners and potential new partners in Upper Cumberland region with Healthcare Coordinator -COIS and OPS to collect data for First Gen -COIS and OPS to collect data for enrollment in EPSO for SP28 -Nursing to collect data for enrollment in SP28 and SU28 	<ul style="list-style-type: none"> -Formative and Summative Assessments on Progress -Reports submitted to THEC -Meeting of partners (1) -Meeting of HEART group (1) 	<ul style="list-style-type: none"> Continue to have Co-PIs to be responsible for meetings Project director to track data and budget with Financial Admin COIS/WHSON to market programs
Q2 Nov 2028- Jan 2029 SP29	<ul style="list-style-type: none"> - Revise education and awareness materials for distribution at events if needed -Visit multiple sites in Upper Cumberland for recruitment -Video messages and social media blasts -Recruitment of current and former students to be “ambassadors” for the program for marketing and social media push. -TN Tech Marketing for social media and graphic design outreach programs -Creation of WBL opportunities with partners in conjunction with the CTE directors in Upper Cumberland -Collect/enter information in tracking system -Collect and enter data, stories, etc. 	<ul style="list-style-type: none"> -New education and awareness materials developed if needed -New recorded on-demand training available -Quarterly reports submitted to THEC 	<ul style="list-style-type: none"> Number of sites visited, and number of events scheduled for future HEART team. Number of visits to social media sites and webpages Number of enrollees-goal is 40+ per semester in EPSO. 40+ in Nursing (all programs) for year.

Q3 Feb 2029- April 2029 SP29	-Continue Implementation of HEART program via face-to-face and web-based events -Continued relationship-building with community partners and stakeholders -Collect/enter information in tracking system -Collect and enter data, stories, etc. -COIS and OPS data track for EPSO SP29-forecast FA29 -Nursing data track for enrollment SP29-forecast SU29 -Prepare for grant closeout and continuation with sustainability	-HEART information table at scheduled health events, K-12 locations, and community events -Face to Face meetings with Partners/leaders -Community partners added to schedule of events -Create testimonials and information videos in collaboration with WCTE and TCRI. -Air videos on radio, TV, social media, and HEART website -Mid year cycle reports submitted to THEC -Report project impact to stakeholders and State Agencies, etc.	-Number of events attended -Number of participants at events (headcount) -Number of visits to Facebook and social media sites
Q4 May 2029- July 2029 SU29	-Continue Implementation of HEART program via face-to-face and web-based events -Continued relationship-building with existing partners -Collect/enter information in tracking system -Collect and enter data, stories, etc. -Ongoing data analysis -Share success stories with stakeholders, community, and other state and national outlets -Close out grant and evaluate sustainability for future continuation	- HEART information table at events and community locations - Air testimonial and information videos on social media, radio, and WCTE - Quarterly reports submitted to THEC -Report project impact to stakeholders and State Agencies, etc. -Year-end reports as needed	

These activities will be ongoing throughout the grant cycle:

1. Weekly information checks to align grant activities and THEC goals and objectives; updates made to webpages, social media, and education materials.
2. Continued cycle of data analysis and quality improvement for marketing and education materials
3. Continued monitoring of stakeholder needs concerning enrollment, WBL, and employment

Appendix D: Letters of Support



UPPER CUMBERLAND SUPERINTENDENTS STUDY COUNCIL 200 W 10th St., Num 140 SW Hall • Cookeville TN 38505

The Upper Cumberland Superintendents Study Council (Study Council) consists of 14 Directors of Schools, and their mission is to provide educational excellence. All 14 counties represented on the Study Council are committed to partnering with Tennessee Tech University (TTU) regarding plans for a rural health care program. On numerous occasions, we have partnered with TTU for successful programs and grant-funded projects. We believe the plan to build a rural health care pathway will increase not only the number of students who choose a healthcare related field but will also increase the Early Post-Secondary Opportunities (EPSO) in these healthcare related fields, something that will benefit every county and community in our service area.

All districts look for opportunities to develop new programs and enhance existing programs. The school systems within these districts would benefit tremendously from the resources and services provided by the Healthcare Education Access in Rural Tennessee (HEART). The Study Council believes the outcomes defined in the grant would better prepare students for a healthcare driven society and increase their chances for future healthcare success in Tennessee.

As educational leaders in our communities, we fully support TTU's commitment to implementing the HEART initiative in our rural service area. We understand that this collaborative project will serve 14 rural Upper Cumberland counties and possibly other neighboring counties as needed. Providing new and creative healthcare pathways will help students find exciting and life-fulfilling careers.

We realize the importance and need for introducing the HEART program in our K-12 schools. We believe participation in this grant will support our region's efforts to produce more high school graduates who are not only career-ready but also college-ready for the specialized needs of a rural healthcare system.

Again, the Study Council fully supports the efforts of TTU to seek grant funding for rural healthcare, as outlined in HEART to create jobs and increase business opportunities. This program will help students be more successful in the workforce and will benefit our regional workforce and our communities.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Dronebarger".

Kurt Dronebarger – Director of Schools White County Schools

Phone: (931) 372-3300

BC



This letter is in support of the Tennessee Tech University Healthcare Education Access in Rural Tennessee initiative (H.E.A.R.T.).

The vision of Cookeville Medical Clinic RHC and associated Federally Qualified Patient Centered Medical Homes (FQHC) are to be a preferred provider of personalized, innovative, quality, and cost-effective healthcare services for our customers within the Upper Cumberland Region. Our goal is to increase the availability of primary health services through expansion of clinical and ancillary support. Additionally, we aim to form alliances and partnerships that will enhance our capacity to meet the changing health care of our community. These goals are in alignment with the initiative proposed by Tennessee Tech University to expand healthcare pathways in rural health care. We support Tennessee Tech University and the H.E.A.R.T program to ensure quality candidates will meet the future needs of our community. With our nine (9) Rural health clinics in operation within the Upper Cumberland we have the capacity to provide clinical experiences and future employment opportunities to graduates of these programs.

The needs in our rural health clinics and our FQHC's are for registered nurses, advanced practice nurses, and access to behavioral health professionals as noted to be high demand professionals within the proposal with a Health Professional Shortage Areas (HPSA) designation of Medically Underserved Communities (MUC) for primary and mental health. Our benefit in this partnership will be access to qualified nurses graduating from an accredited program.

We agree that Tennessee Tech University will be the lead Higher Education institute and will disperse funding as proposed to support this partnership. We also support the main objective of encouraging adult learners and K-12 healthcare preprofessional students to continue their education within the region. The initiative will also educate these individuals on the different healthcare jobs available to them at TTU while encouraging graduates to remain employed in our immediate fourteen counties of the Upper Cumberland.

Brittany Collins, BSN, RN, CRHCP

BC

Cookeville Medical Clinic Practice Administrator



Putnam County Health Department

January 13, 2025

To Whom It May Concern:

I am writing to express my support for the Tennessee Tech University HealthCare Education Access in Rural Tennessee initiative (H.E.A.R.T). Tennessee Tech University (TTU) has been a valuable public health partner by offering accessible education opportunities that are tailored to meet the unique needs of our rural population. Putnam County Health Department's mission is to protect, promote, and improve the health and well-being of people in the community. I have witnessed this organization's unwavering commitment to improve health outcomes in rural communities and recognize the immense impact this project would have on the region.

The goal of the H.E.A.R.T. project is to provide clinical and employment opportunities to the students who are enrolled, securing valuable training from the rural health care expansion. The needs in our rural health clinics for registered nurses, advanced practice nurses, and behavioral health professionals are specified as high demand professionals within the proposal with Health Professional Shortage Area (HPSA) designation of Medically Underserved Communities (MUC) for primary care, mental health, and dental health. The Upper Cumberland Region will benefit greatly from improved access to qualified healthcare professionals graduating from an accredited program through the expansion of healthcare pathways that recruit these students back to their rural, hometown communities. Addressing health factors will positively impact the physical, emotional and mental health outcomes of these rural communities.

This initiative is important as rural communities often face significant health disparities due to limited access to healthcare services, resources, and education. By equipping residents with the tools to improve their health, this project will have a lasting impact on the health outcomes of the entire region.

TTU has demonstrated exceptional leadership in health-related initiatives and is well-equipped to achieve the goals outlined in the H.E.A.R.T initiative. Moreover, the University's longstanding relationships with local healthcare agencies, community organizations, and stakeholders will serve as a strong foundation for ensuring the success and sustainability of the project.

As a Federally Qualified Health Center (FQHC) we value community health partners, such as TTU, who share our vision to empower families to make healthy choices and improve quality of lives. We are excited to work alongside this invaluable H.E.A.R.T. initiative.

Respectfully,

A handwritten signature in black ink, appearing to read 'Lisa Bumbalough', written over a horizontal line.

Lisa Bumbalough
Putnam County Health Center Director

Putnam County Community Health Center - Putnam County Health Department
701 County Services Drive • Cookeville, Tennessee 38501
Tel: 931-528-2531 • tn.gov/health



JJ Oakley Campus Health Services

TENNESSEE TECH

January 15, 2025

To Whom It May Concern:

JJ Oakley Campus Health Services is excited to support the Tennessee Tech University Healthcare Access in Rural Tennessee Initiative (H.E.A.R.T). We recognize the need for education and retention of high-quality healthcare professionals within the Upper Cumberland region. Our mission at Health Services is to provide quality, cost-effective healthcare and health education services that will assist the campus community in maintaining an optimal state of health and wellness. The H.E.A.R.T. initiative would help us meet our mission by providing clinical site placement opportunities and employment opportunities for graduates within our clinic.

The healthcare needs within not only Putnam County, but the entire Upper Cumberland region, are diverse and far reaching. Various needs such as mental health, primary care, and specialty healthcare providers are needed in order to meet the comprehensive medical needs of our patients. This grant would help educate, recruit, and retain qualified healthcare professionals of all levels and licensure.

As an advanced practice nurse of 30 years within the Upper Cumberland and as the Director of Health Services at TTU, I am confident that this partnership will serve the fourteen Upper Cumberland counties to improve the quality of access to qualified, trained healthcare personnel within this region. TTU's Health Services and the surrounding area would also benefit from these same personnel providing education regarding health and wellness to our population which would lead to better health outcomes for our residents.

I am truly excited for the potential opportunities with this initiative. Please let me know if I can answer more questions or be of further assistance. Thank you.

Sincerely,

LeighAnn Bay

Director of Health Services, TTU

Appendix E: Budget and Line-Item plan

Tennessee Tech University THEC RHCPE Budget Plan

Line 1- Salaries and Wages. The proposal includes academic workload release for Project Director and Co-Director of 3 hours each (total of 6 hours= 0.5 FTE or equivalent to approximately 20% of total effort) to direct grant funds and activities. Project Directors will lead and organize monthly meetings with TCRI, OPS, and partners to assess ongoing activities. Hiring of 1 FTE 9-month employee (online development coordinator) to redevelop courses for dual enrollment and facilitate online learning. A summer stipend of 7,500 per year is requested for multiple course revision and development (up to 1,000-dollar stipend per course hour) as well as \$7,500 in summer pay stipend each year for each of Dr. Mabry and Dr. Geist (PI and Co-PI). Also included is release time for various administrative employees who will contribute significant time to work on the project. These include the Director (1) and Administrative Support (1) from Professional Studies, Financial Associate (1) from the Center for Rural Innovation, and a Healthcare Coordinator (1) from the WHSON. Their responsibilities include managing grant activities, marketing, and recruitment efforts, filing grant reports, tracking expenditures, and managing student stipends. Total Salaries and Wages requested is **\$725,600.**

Line 2- Benefits and Taxes. Included benefits are FICA, Medicare, Group Insurance, and Retirement. All Tennessee Tech faculty and staff benefits are calculated at 42%. Benefits are budgeted for PI and co-PI as well as the administrative staff with requested salary on the grant. Total Benefits and Taxes requested is **\$304,752.**

Line 4- Professional Fees. Requested are funds for the hiring of currently undetermined marketing professional(s) for development of public service announcements for local television and radio, publications, and graphic design. Will fall under 100% grant funded personnel. Total Professional Fees requested is **\$17,500.**

Line 5- Supplies. Bi-Monthly outreach to high schools on rotation in the 14-county region. Quarterly meetings with H.E.A.R.T. program partners. Will provide refreshments up to 150.00 per meeting. Marketing materials are planned to be purchased (swag giveaways) to promote programs to high school and community partners.

Funds are requested for simulation upgrades needed within the nursing lab to maintain the program and make it competitive. Suggested items are replacement hospital beds for Fundamental labs (1 per year @ 5,000.00), Refurbished Baxter IV pumps (2 per year @ 5000.00), Lab supplies per lab coordinator discretion (5,000.00 per year). Total 15,000.00 per year. Purchase of equipment needed for APRN clinical courses (300.00 per student in 6616 final practicum)-estimate 30 students per year for maximum of 9,000.00. Total Supplies funds requested are **\$161,000.**

Line 10- Printing and Publications. Marketing and communications consultant for printing, graphic design, and digital services. NCLEX and AACN/AANP certification textbooks for student awardees. These expenses are included as part of the \$161,000 requested for supplies.

Line 11- Travel. Will use state generated estimates for gas (0.70 cents per mile) reimbursement. Consider group bus travel for HOSA groups to visit TN Tech. May also cover hotel fee and per diem if overnight stay is required for attendance at conference or outreach events. Total funds requested for Travel are **\$20,000.**

Line 12- Conferences. Funding to support personnel development for grant funded individuals through conference attendance. Limit funding total travel and conference to 1,500 per year per individual for up to 4 members. Will use state generated estimates for gas (0.70 cents per mile) reimbursement. May also cover hotel fee and per diem if overnight stay is required for attendance at conference or outreach events. Total funds requested for Conferences are **\$23,000.**

Line 15- Grants and Awards.

Line 16- Specific Assistance to Individuals. Student stipends for low-income students-this will be determined by FASFA information and application to university. Current plan is to fund students in the Associates RN to BSN program, Accelerated BSN program, and APRN (in family and psych mental health tracks) who meet qualifications. The amount will be up to 1000.00 dollars per student per semester for up to five semesters funded to student account. Up to 15 students can be funded in Year 1 and up to 35 students can be funded for each of Years 2-4. Total funds requested in the Specific Assistance to Individuals line are **\$600,000.**

Line 18- Other Non-Personnel Expenses. Exam fees for certification for NCLEX up to 10 students Y1 and up to 20 students Y2-4. Advertising for outreach marketing items to promote programs. These expenses are included in the \$161,000 requested in supplies.

Line 19- Capital Purchases.

Line 22- Indirect Costs. These funds will cover the WHSON faculty and administrative, OPS administrative, and TCRI administrative personnel who will maintain financial information, project evaluation tracking, and generate project reports. Tennessee Tech's current predetermined federally approved on-campus Facilities and Administrative Cost rate as approved by the Department of Health and Human Services effective July 1, 2017, through June 30, 2023, is 42.0% of Modified Total Direct Costs. However, indirect costs for this project are capped at 8% per the grant agency guidelines.

Line 24- In Kind Expenses. No in-kind expenses are expected to be incurred on this grant.

Line 25- Total Expenses. Total expenses for this project are as follows:

- Total Project Direct Costs- **\$1,851,852**
- Total Project Indirect Costs (8%)- **\$148,148**
- Total Project Expenses- **\$2,000,000**

GRANT BUDGET				
Rural Health Care Pathways Expansion Grant- Tennessee Tech University				
The grant budget line-item amounts below shall be applicable only to expense incurred during the following				
Applicable				
Period: BEGIN: END:				
POLICY 03 Object Line-Item Reference	EXPENSE OBJECT LINE-ITEM CATEGORY ¹	GRANT CONTRACT	GRANTEE PARTICIPATION	TOTAL PROJECT
1, 2	Salaries, Benefits & Taxes	1,030,352.00	0.00	1,030,352.00
4, 15	Professional Fee, Grant & Award ²	17,500.00	0.00	17,500.00
5, 6, 7, 8, 9, 10	Supplies, Telephone, Postage & Shipping, Occupancy, Equipment Rental & Maintenance, Printing & Publications	161,000.00	0.00	161,000.00
11, 12	Travel, Conferences & Meetings	43,000.00	0.00	43,000.00
13	Interest ²	0.00	0.00	0.00
14	Insurance	0.00	0.00	0.00
16	Specific Assistance To Individuals	600,000.00	0.00	600,000.00
17	Depreciation ²	0.00	0.00	0.00
18	Other Non-Personnel ²	0.00	0.00	0.00
20	Capital Purchase ²	0.00	0.00	0.00
22	Indirect Cost	148,148.00	0.00	148,148.00
24	In-Kind Expense	0.00	0.00	0.00
25	GRAND TOTAL	2,000,000.00	0.00	2,000,000.00

¹ Each expense object line-item shall be defined by the Department of Finance and Administration Policy 03, *Uniform Reporting Requirements and Cost Allocation Plans for Subrecipients of Federal and State Grant Monies, Appendix A*. (posted on the Internet at: <https://www.tn.gov/finance/looking-for/policies.html>).

² Applicable detail follows this page if line-item is funded.

Appendix F: Reference list

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- Health Resources and Services Administration. (2022). *Rural Health Grants Eligibility Analyzer*. U.S. Department of Health and Human Services. <https://data.hrsa.gov/tools/rural-health>
- IMPLAN® model, 2024 Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (data and software), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078 www.IMPLAN.com
- National Council of State Boards of Nursing. (2024). *NCLEX pass rates*. https://www.ncsbn.org/publications/2024_NCLEX_Pass_Rates
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Upper Cumberland Development District. (2022). *Tennessee's Upper Cumberland Comprehensive Economic Development Strategy 2022-2027*. Retrieved December 10, 2024, from <https://ucdd.org/wp-content/uploads/2023/11/CEDS-2022-2026.pdf>