

Virginia Department of Health – Office of Health Equity (VDH-OHE)

Incentive Programs

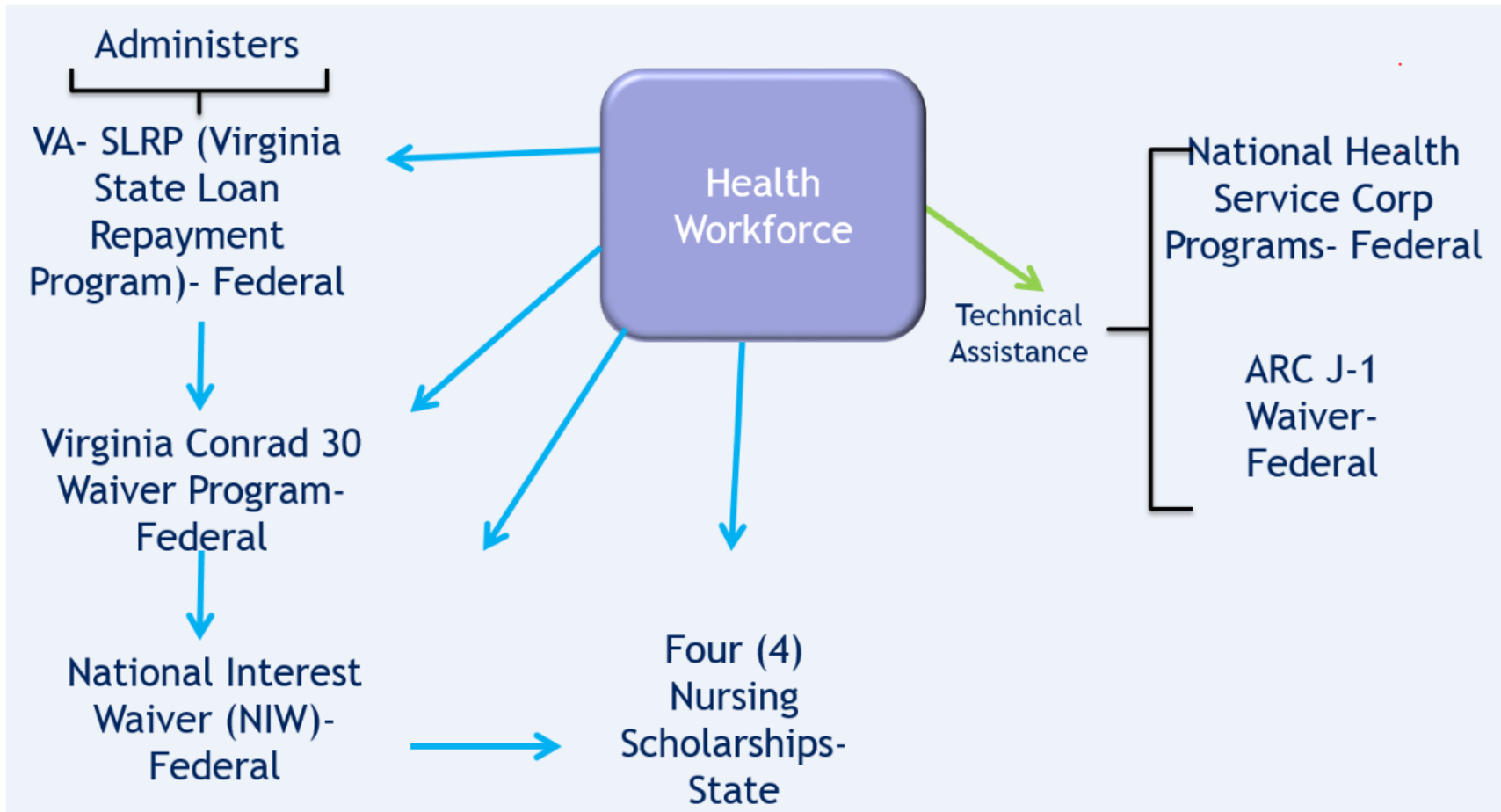
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Health Workforce Specialist

Health Workforce Overview



VA- SLRP

- Purpose: To improve and increase access to quality health care providers in Virginia's **Health Professional Shortage Areas** (HPSAs)
 - Filling Primary Care Occupations
- Incentive: Offers loan repayment in exchange for service in a HPSA in Virginia
- Community Match: 1:1 cash match required
- Who/What is considered “the community?”: Any non-federal fund source to include:
 - Employer
 - Applicant
 - Foundation
 - State of Virginia

VA- SLRP

- Advisory Committee: To assist in the fair distribution of VA-SLRP monies.
- Funding Source: \$500,000/yr. for four years- HRSA grant
 - \$300,000-General Assembly (State of Virginia)
 - \$1,965,000- Tobacco Commission
 - Former source-The Virginia Health Care Foundation
- Eligible Site: Required and must be located in a HPSA and be:
 - Non- Profit;
 - State/Public; or
 - For-Profit “operated by a non-profit” only
- Eligible Applicant: Required



Who is eligible for VA-SLRP?

PROVIDER	SPECIALTY
Physicians <ul style="list-style-type: none"> Allopathic Medicine (MDs) Osteopathic Medicine (DOs) 	Pediatrics, Geriatrics, Psychiatry, Family or Internal Medicine, Women's Health
Nurse Practitioners <ul style="list-style-type: none"> Includes Certified Nurse Midwives 	Adult, Family, Geriatric, Pediatric, Psychiatry/Mental Health and Women's Health
Physician Assistants	Adult, Family, Geriatric, Pediatric, Psychiatry/Mental Health and Women's Health
Dental Professionals <ul style="list-style-type: none"> Dentists Registered Dental Hygienists 	General, Pediatric and Geriatric
Mental Health Professionals <ul style="list-style-type: none"> Health Service Psychologists Licensed Clinical Social Workers Marriage and Family Therapists Licensed Professional Counselors Alcohol & Abuse Counselors (Masters level) 	Adult, Family, Geriatric, Pediatric, Psychiatry/Mental Health and Women's Health
Registered Nurses <ul style="list-style-type: none"> Includes Certified Nurse Midwives 	Adult, Family, Geriatric, Pediatric, Psychiatry/Mental Health and Women's Health
Pharmacists <i>Working at the following:</i> <ul style="list-style-type: none"> Health Departments Clinics Health Centers Long-Term Care Facilities Penitentiaries 	Ambulatory Care, Hospital, Oncology, Pediatrics, Pharmacotherapy, Psychiatric, Critical Care, Nutrition Support, Nuclear and Community



Who is eligible for VA-SLRP?

- **Participant Eligibility**

- **All applicants must meet the following criteria to be eligible for VA-SLRP:**

- **Must be citizens or nationals of the United States**
- **Clinicians must have completed**
 - Residency training
 - Be board eligible or Board certified in their specialty
 - Accredited program
 - No restrictions

Who is eligible for VA-SLRP?

- **Participant Eligibility Cont.**
 - **Must completely satisfy any other contractual service obligation for health professional service prior to beginning the period of service under the VA-SLRP**
 - **Federal**
 - **State**
 - **Other entity**
 - **Must not have any federal or state obligations**
 - » **Judgment liens**
 - » **Against their property for a debt to the United States**
 - » **No history**

Who is eligible for VA-SLRP?

- **Participant Eligibility Cont.**
- **Must be eligible for federal employment**
 - **Must practice full-time at an approved and eligible practice site**
 - Full-time service equates to 40 hours per week for a minimum of 45 weeks per year
 - No more than 4 hours of administrative duties per week
- **Must agree to use the VA-SLRP funds only to repay qualifying educational loan(s)**

VA- SLRP/Tobacco Commission

- Applicants must Live in the Tobacco Region
 - *Note: Roanoke & Lynchburg are not Eligible*
- Applicants must Work in the Tobacco Region
 - *Note: Roanoke & Lynchburg are not Eligible*
- Applicants must have Eligible Loans
 - Award cannot exceed the loans owed
- Must meet VA-SLRP requirements

VA-SLRP/Tobacco Commission

The following are eligible to be approved as practice sites

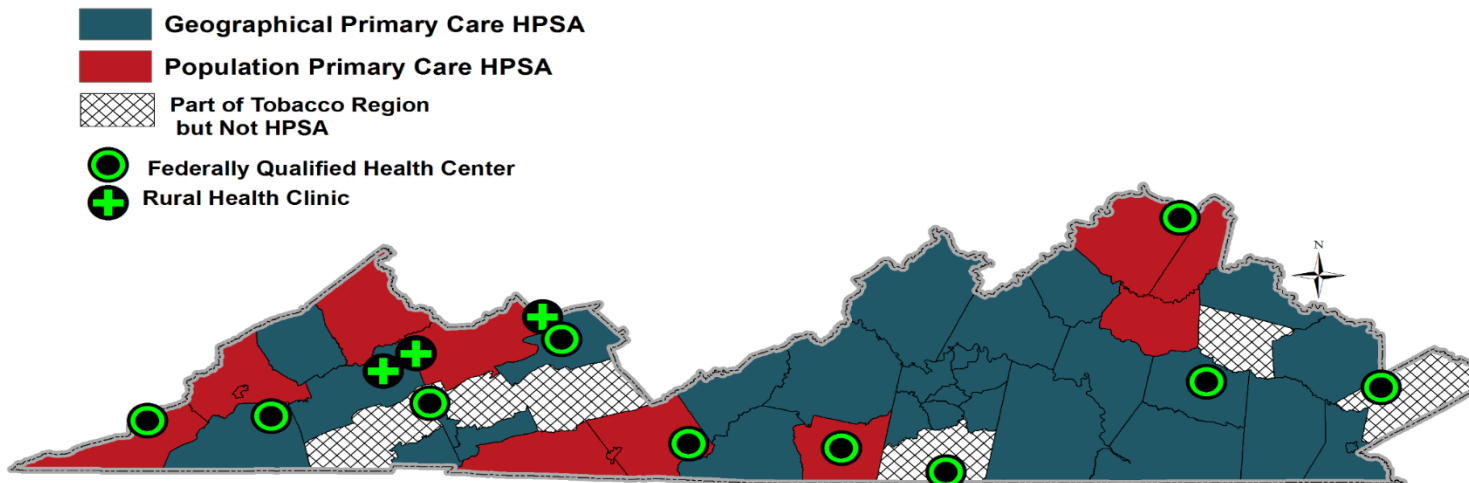
1. Federally Qualified Health Centers (FQHCs)
2. FQHC Look-A-Likes
3. Centers for Medicare & Medicaid Services
Certified Rural Health Clinics (RHCs)

Note: The above listed Site types will be Tobacco Commission Region focus

VA-SLRP/Tobacco Commission

Updated as of 05/16/2019

Virginia Tobacco Region Primary Care Professional Shortage Areas (HPSA) **



*Data Sources: Up-to-Date designation data obtained from HRSA Shortage Designation Data Portal: <http://datawarehouse.hrsa.gov/tools/dataportal.aspx>

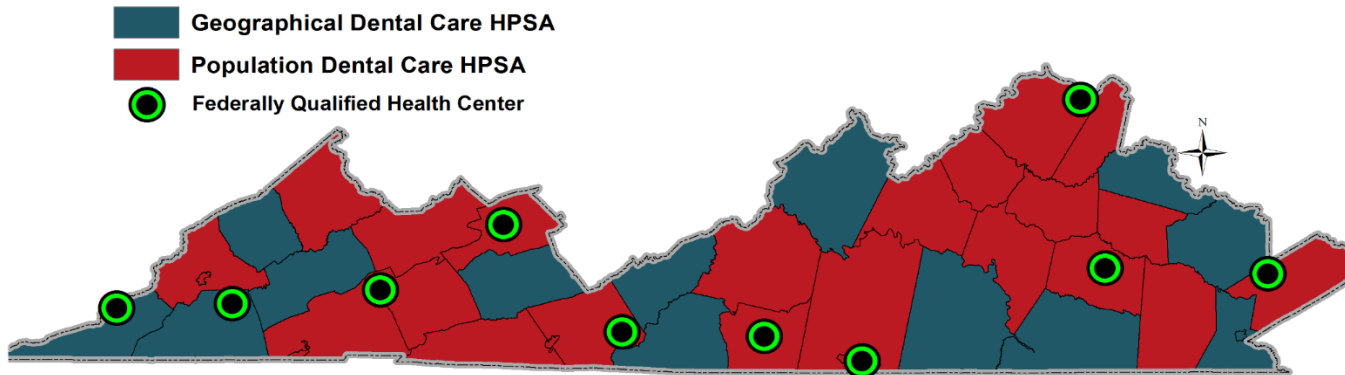
0 30 60 120 Miles

** Health Professional Shortage Areas (HPSAs) are designated by HRSA as having shortages of Primary care and may be geographic (a county or service area), demographic (low income population) or institutional (comprehensive health center, federal qualified health center or other public facility). The Dark blue color on the map shows the HRSA shortage area of county or service area (Geographic) for Primary Care while the Red color shows the Low-income population areas (Population)

VA-SLRP/Tobacco Commission

Updated as of 05/16/2019

Virginia Tobacco Region Dental Care Professional Shortage Areas (HPSA) **



*Data Sources: Up-to-Date designation data obtained from HRSA Shortage Designation Data Portal: <http://datawarehouse.hrsa.gov/tools/dataportal.aspx>

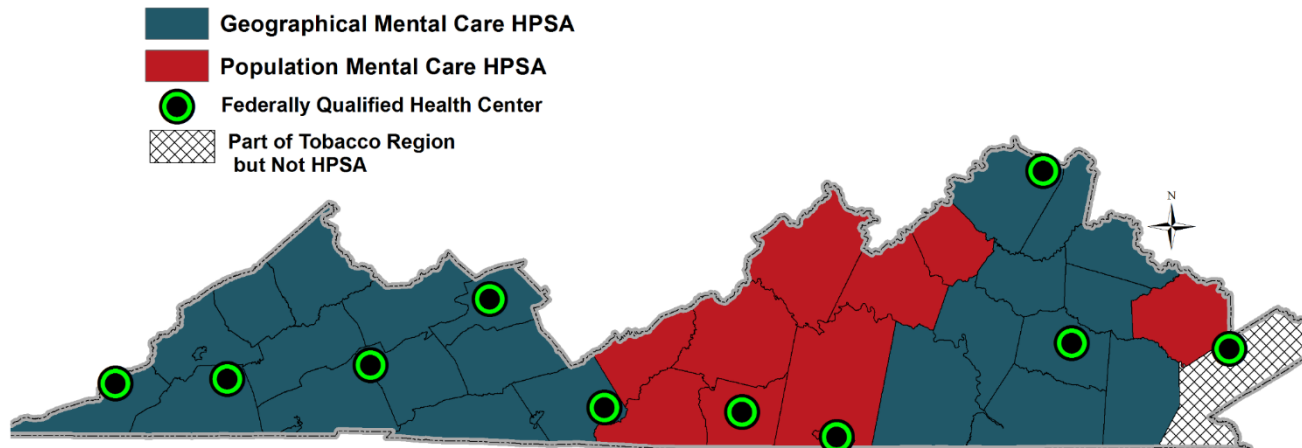
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** Health Professional Shortage Areas (HPSAs) are designated by HRSA as having shortages of Dental care and may be geographic (a county or service area), demographic (low income population) or institutional (comprehensive health center, federal qualified health center or other public facility). The Dark blue color on the map shows the HRSA shortage area of county or service area (Geographic) for Dental Care while the Red color shows the Low-income population areas (Population)

VA- SLRP/Tobacco Commission

Updated as of 05/16/2019

Virginia Tobacco Region Mental Care Professional Shortage Areas (HPSA) **



*Data Sources: Up-to-Date designation data obtained from HRSA Shortage Designation Data Portal: <http://datawarehouse.hrsa.gov/tools/dataportal.aspx>

0 30 60 120 Miles

** Health Professional Shortage Areas (HPSAs) are designated by HRSA as having shortages of Mental care and may be geographic (a county or service area), demographic (low income population) or institutional (comprehensive health center, federal qualified health center or other public facility). The Dark blue color on the map shows the HRSA shortage area of county or service area (Geographic) for Mental Care while the Red color shows the Low-income population areas (Population)

VA- SLRP/ Tobacco Commission

- **Practice Site Eligibility**
 - All health care professionals who participate in the VA-SLRP must fulfill their service obligation at an eligible site.
 - The eligible practice site must be a:
 - Primary Care
 - Mental Health Care
 - Dental Health Care

VA-SLRP/Tobacco Commission

Rubric/Process:

- **Normal Process for VA-SLRP**
 - Highest Scoring Applicants will be funded
 - Use Federal & State funds first
- **Tobacco Funds are to Expand VA-SLRP**
 - For Tobacco Region eligible applicants
 - Those with HPSA scores will be awarded first
 - All others-who otherwise would not be eligible would be considered second
 - Due to lack of funding
 - No HPSA score

VA-SLRP Award Distribution

- The amount of the Federal portion of the award will be determined partially by the amount provided by the community match portion.
- The total amount of awards for all four years cannot exceed \$140,000.

1st and 2nd Year	3rd Year	4th Year
<ul style="list-style-type: none"> • Match up to \$50,000 • With a \$1 for \$1 match • \$50,000 from Federal & \$50,000 from Community • Maximum \$100,000 	<ul style="list-style-type: none"> • Match up to \$ 20,000 • With a \$1 for \$1 match • \$20,000 from Federal & \$20,000 from Community • Maximum \$40,000 	<ul style="list-style-type: none"> • Match up to \$ 20,000 • With a \$1 for \$1 match • \$20,000 from Federal & \$20,000 from Community • Maximum \$40,000

VA-SLRP/Tobacco Commission Award Distribution

- The total amount of awards for cannot exceed **\$140,000. *all four years***

1st and 2nd Year	3rd Year	4th Year
<ul style="list-style-type: none">• No Match Required• Max \$100,000	<ul style="list-style-type: none">• No Match Required• Max \$40,000	<ul style="list-style-type: none">• No Match Required• Max \$40,000

Timeline

- **Application Cycle: January 1 – March 31**
- **Advisory committee meeting convenes: between April 1 – April 15**
- **Generate Contracts etc.: April 15 – May 31**
- **Mail checks: June 1 – June 30**

Need a job in a HPSA?

- **Register at 3RNET.org**
- **HPSA find**
 - <https://data.hrsa.gov/tools/shortage-area/by-address>

Healthcare's Economic Impact in Rural Communities

Justin Crow

Office of Health Equity, Virginia
Department of Health

SOCIAL DETERMINANTS AND SOCIAL NEEDS: MOVING BEYOND MIDSTREAM



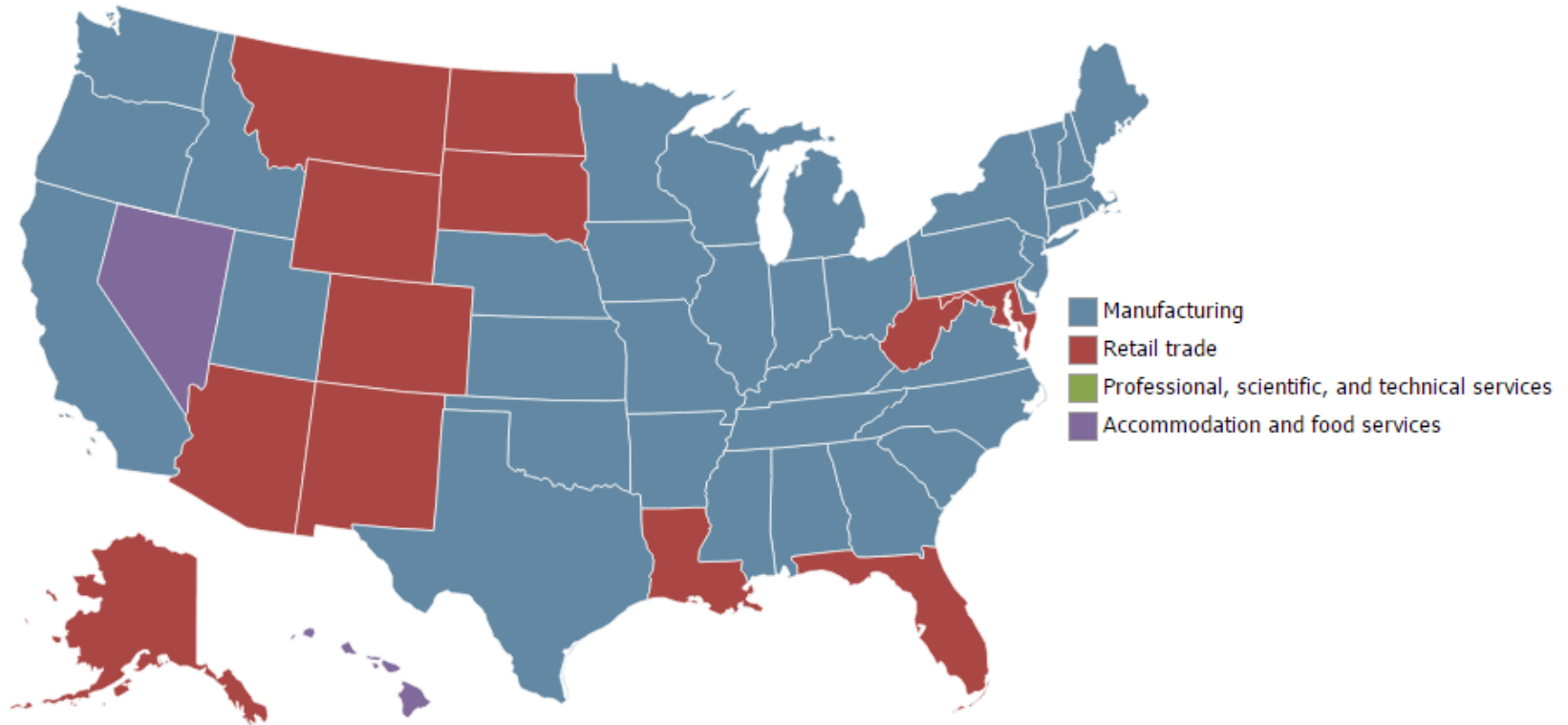
Upstream Approach

	Clinical (health care)	Nonclinical (health/wellness)
Community (total population)	<p>3</p> <p>Expand access to health care</p> <p><i>Example:</i> Shift from in-patient to community-based services</p>	<p>6</p> <p>Create opportunity <i>Examples:</i> jobs, public transport</p> <p>Improve conditions <i>Examples:</i> air pollution, complete streets, green space</p> <p>Change policies <i>Examples:</i> housing, food security</p>
High risk; likely to become patients	<p>2</p> <p>Emphasize outreach; prevention, early detection</p> <p><i>Examples:</i> mobile mammogram screening vans, visiting nurses</p>	<p>5</p> <p>Target nonclinical preventive actions</p> <p><i>Examples:</i> lead or mold remediation</p>
Patients	<p>1</p> <p>Reorganize care delivery</p> <p><i>Examples:</i> medical homes, health IT, care coordination, patient-centered care</p>	<p>4</p> <p>Integrate social services</p> <p><i>Examples:</i> provide referrals or transit passes, write prescriptions for fresh food</p>

Source: Robin Hacke, "Investment Leaders: The Emerging Landscape for Health Investment in Virginia" Sept 28, Richmond Federal Reserve Bank.

Major industries with highest employment, by state 1990

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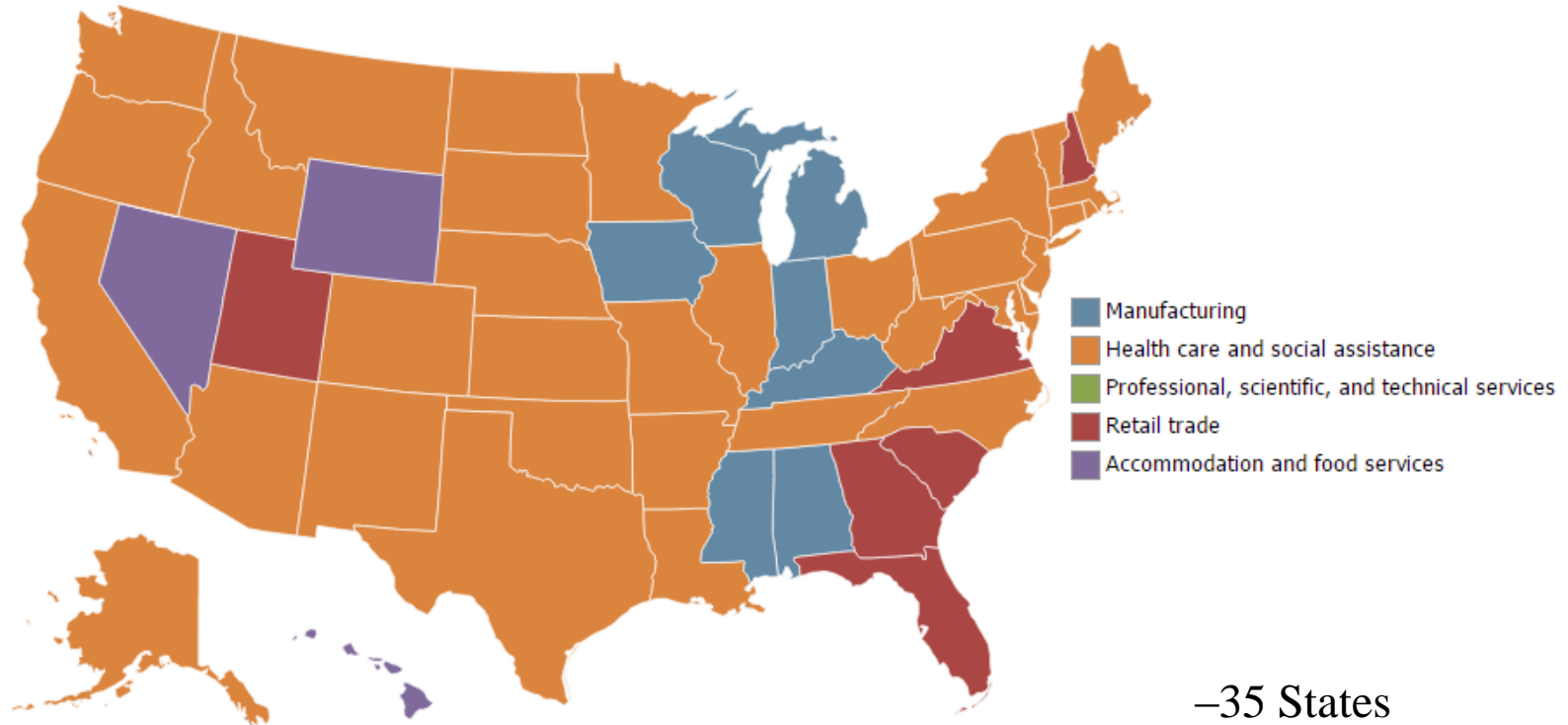


Hover over a state to see information.
Source: U.S. Bureau of Labor Statistics.

http://www.bls.gov/opub/ted/2014/ted_20140728.htm

Major industries with highest employment, by state 2013

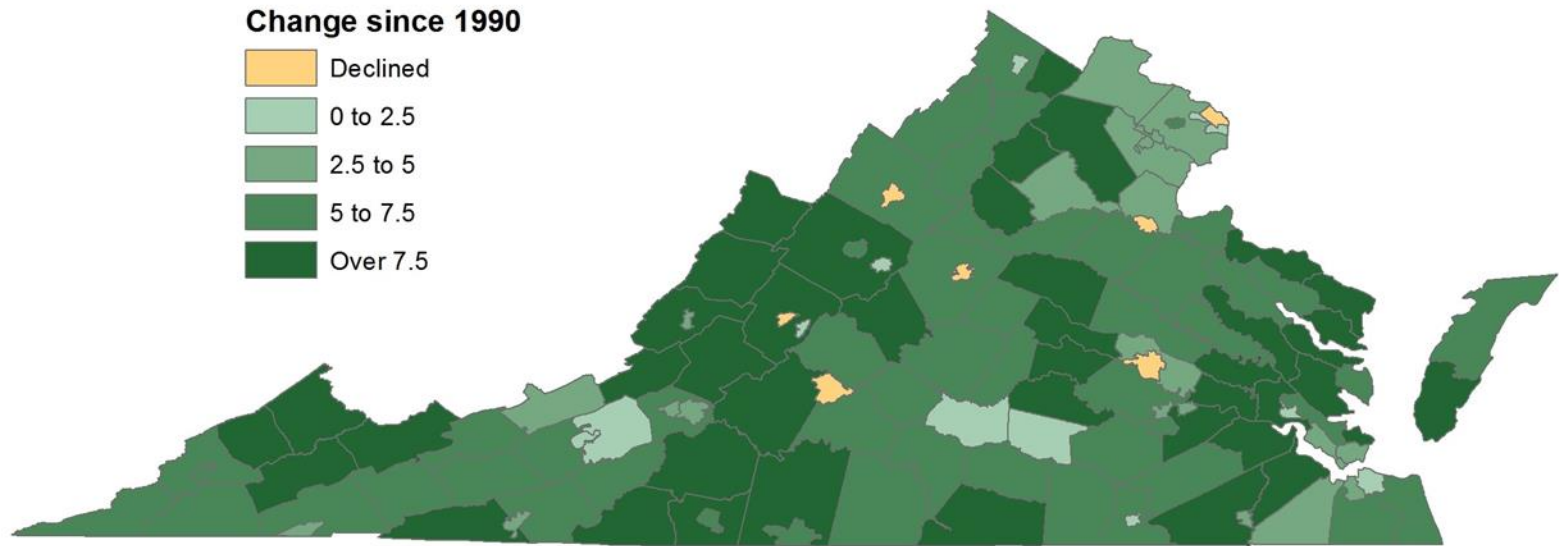
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Hover over a state to see information.
Source: U.S. Bureau of Labor Statistics.

–http://www.bls.gov/opub/ted/2014/ted_20140728.htm

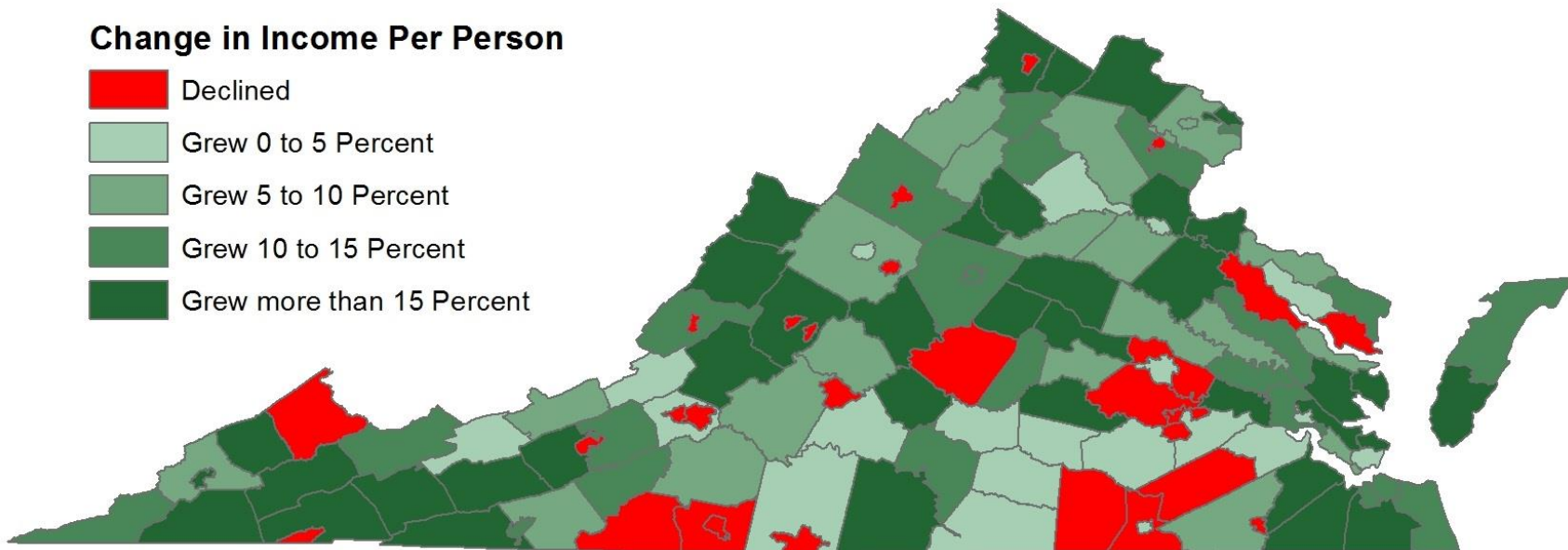
Change in Median Age



–Luke Juday on StatCh@t, Weldon Cooper Center (<http://statchatva.org/2014/08/27/virginia-retirees-headed-for-the-nearby-hills/>)

Change in Income Per Person

- Declined
- Grew 0 to 5 Percent
- Grew 5 to 10 Percent
- Grew 10 to 15 Percent
- Grew more than 15 Percent



-Luke Juday on StatCh@t, Weldon Cooper Center (<http://statchatva.org/2014/08/27/virginia-retirees-headed-for-the-nearby-hills/>)

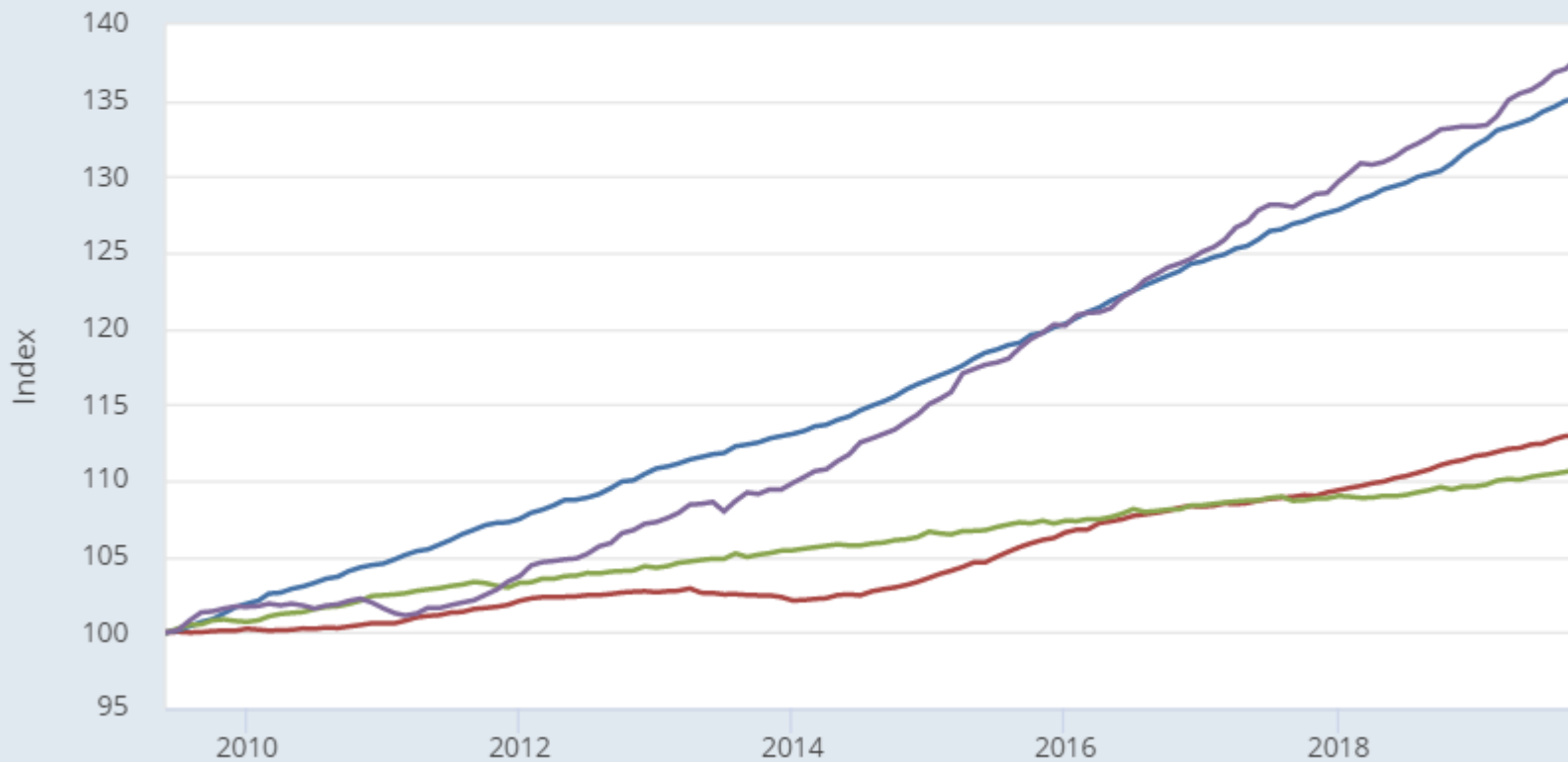
Rural Virginia's Top 5 Industries by Employment

Rank	Industry	Employment	Earnings per Worker
1	State & Local Government	70,892	\$51,067
2	Retail Trade	55,032	\$23,674
3	Health Care & Social Assistance	50,752	\$40,744
4	Manufacturing	50,247	\$53,949
5	Food & Lodging	31,705	\$18,205

Source: BEA CA25N 2015 Total Full-Time and Part-Time Employment by NAICS Industry/State Nonmetro Portion



- All Employees: Education and Health Services: Hospitals, Jun 2009=100
- All Employees: Education and Health Services: Ambulatory Health Care Services, Jun 2009=100
- All Employees: Education and Health Services: Nursing and Residential Care Facilities, Jun 2009=100
- All Employees: Education and Health Services: Social Assistance, Jun 2009=100



Tool: EIA with IMPLAN (modified inputs)

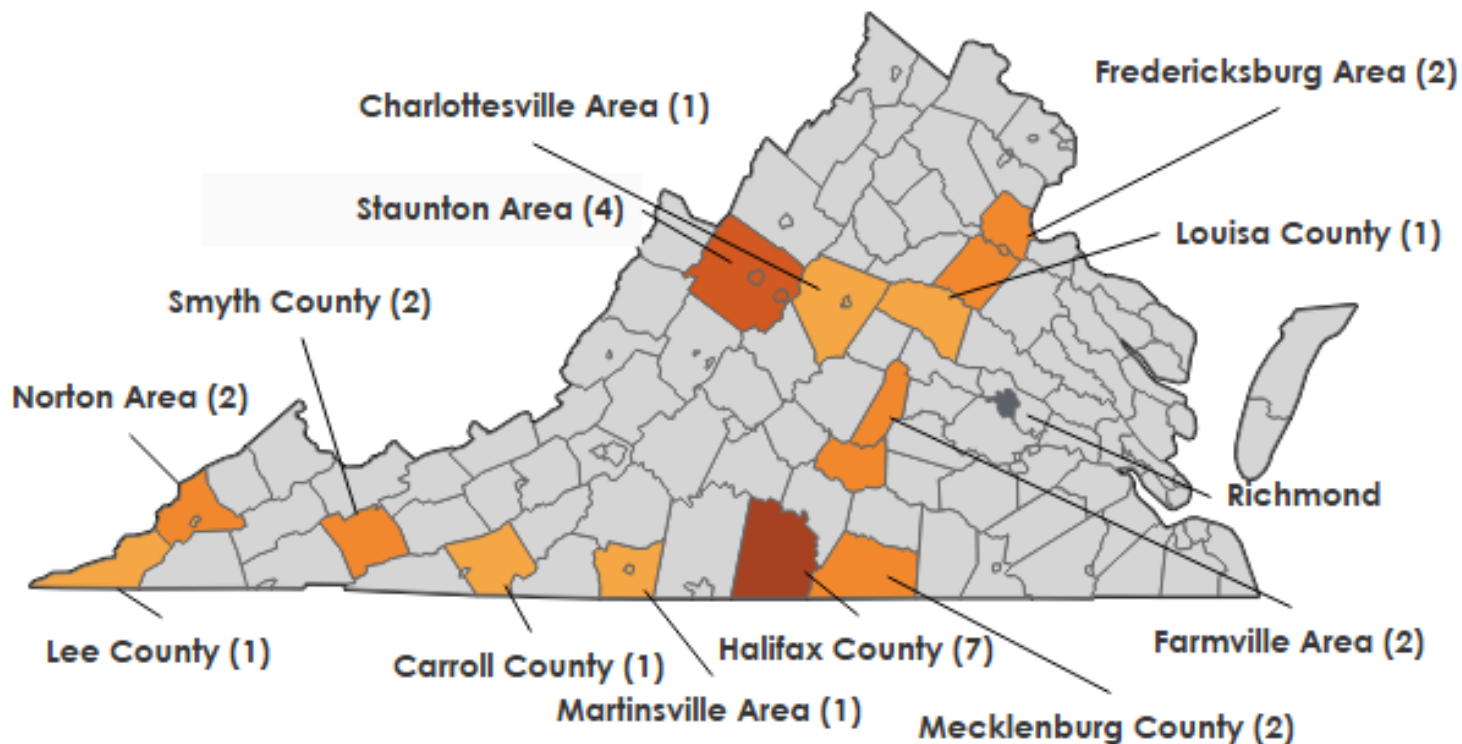
Target Audience: General Assembly, VDH

CASE #1: STATE LOAN REPAYMENT PROGRAM

Health Workforce Impact Case Study: VA-SLRP Recipients by Study Area

Locality (Study Area)	Providers Supported by VA-SLRP
Carroll County	Family Medicine Physician
Charlottesville Area	Nurse Practitioner
Fredericksburg Area	Nurse Practitioners (2)
Halifax County	Nurse Practitioners (4), Family Medicine Physician, Registered Nurses (2)
Lee County	Nurse Practitioner
Louisa County	Dentist
Martinsville Area	Family Medicine Physician
Mecklenburg County	Nurse Practitioner, Family Medicine Physician
Norton Area	Nurse Midwife, Family Medicine Physician
Farmville Area	OB-GYN Physician, Nurse Practitioner
Smyth County	Psychiatrist, Nurse Practitioner
Staunton Area	Psychiatrists (4)
Total VA-SLRP Recipients	26
Total Facility-Provided Employee Compensation	\$4.41 million

Health Workforce Impact Case Study: VA-SLRP Recipients by Study Area



Source: Tableau software, internal data

Health Workforce Impact Case Study: VA-SLRP Funding Loss Scenario

- VA-SLRP is not the sole driver of health care provider labor market decisions preference, but it is a powerful incentive.
- If the VA-SLRP disappeared due to lack of funding, practicing in a HPSA may be less desirable.
- Providers may leave high-need areas, impacting patient care.
- From an economic perspective, a provider leaving the area represents a change in industry supply.

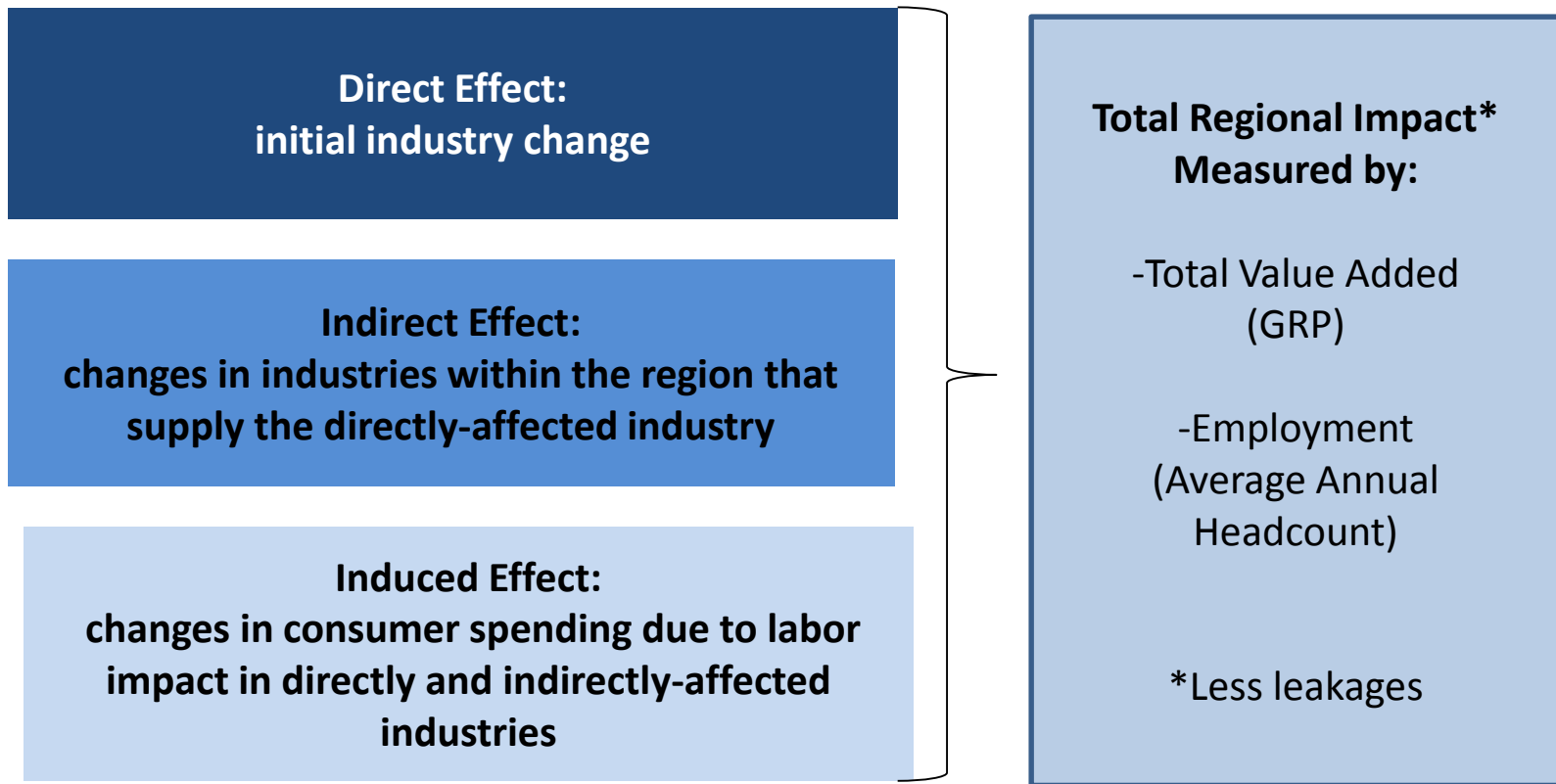
Economic Impact Analysis with IMPLAN

- **IMPLAN is an Input-Output (I-O) modeling and data system.**
 - I-O models use industry linkages, production functions, and employment patterns to characterize regional economies.
 - Data are available at varying levels of aggregation.
- **IMPLAN models are designed to measure shocks.**
 - IMPLAN estimates changes in existing industry “production,” not the contribution of business-as-usual operations.
- **The IMPLAN system calculates the total regional impact (of backward linkages only).**
 - A change in a single industry causes a ripple (multiplier) effect on other industries through supply purchases, employee spending, etc.

Health Workforce Impact Case Study: VA-SLRP Funding Loss Scenario

- **We estimate the economic impact on each region with current VA-SLRP providers if funding were to lapse and providers leave.**
 - Each provider relocates out of a SLRP region; position goes unfilled (at least in the short-term).
- **We use detailed information about each provider’s specialty, salary, and practice location to derive inputs and model the regional “shock” of losing providers in these high-need areas.**
 - Standard IMPLAN inputs are edited with additional information.
 - Loan amounts are NOT included as inputs.

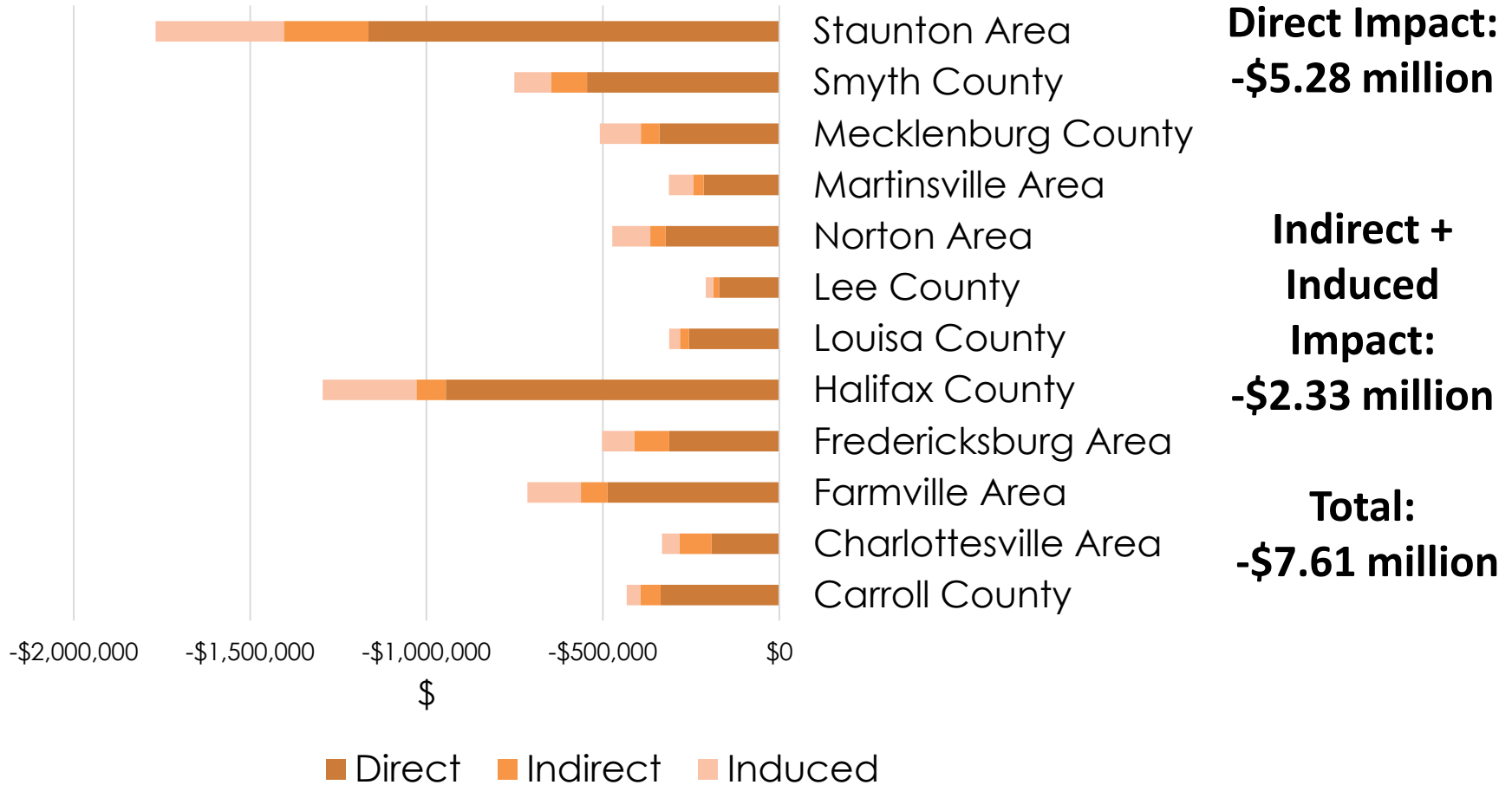
Economic Impact Analysis with IMPLAN



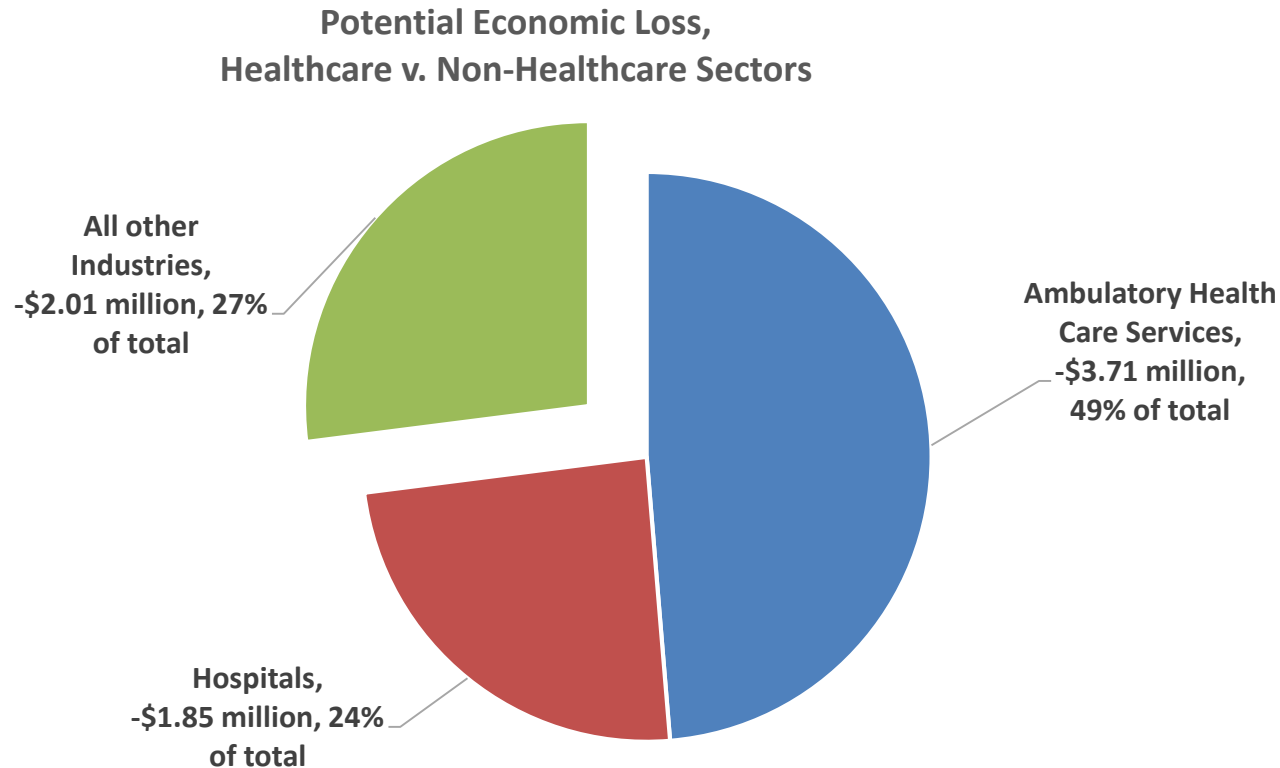
Health Workforce Impact Case Study: The Ripple Effect of Eliminating VA- SLRP

Impact	Mechanism	Example Industries Impacted in SLRP Region
Direct Effect	VA-SLRP recipient relocates (e.g., to Alexandria, North Carolina), reducing “production”/”sales” of health care services	Offices of physicians, (or hospitals, community health centers, dental offices)
Indirect Effect	Reduction in health care services → decrease in demand for inputs.	Services (administrative, maintenance, accounting, legal, medical assistant), medical and diagnostic labs
Induced Effect	Reduction in health care services + decrease in demand for inputs → reduction in labor demand and subsequent consumer spending.	Residential real estate services, restaurants, dry-cleaning, automotive repair

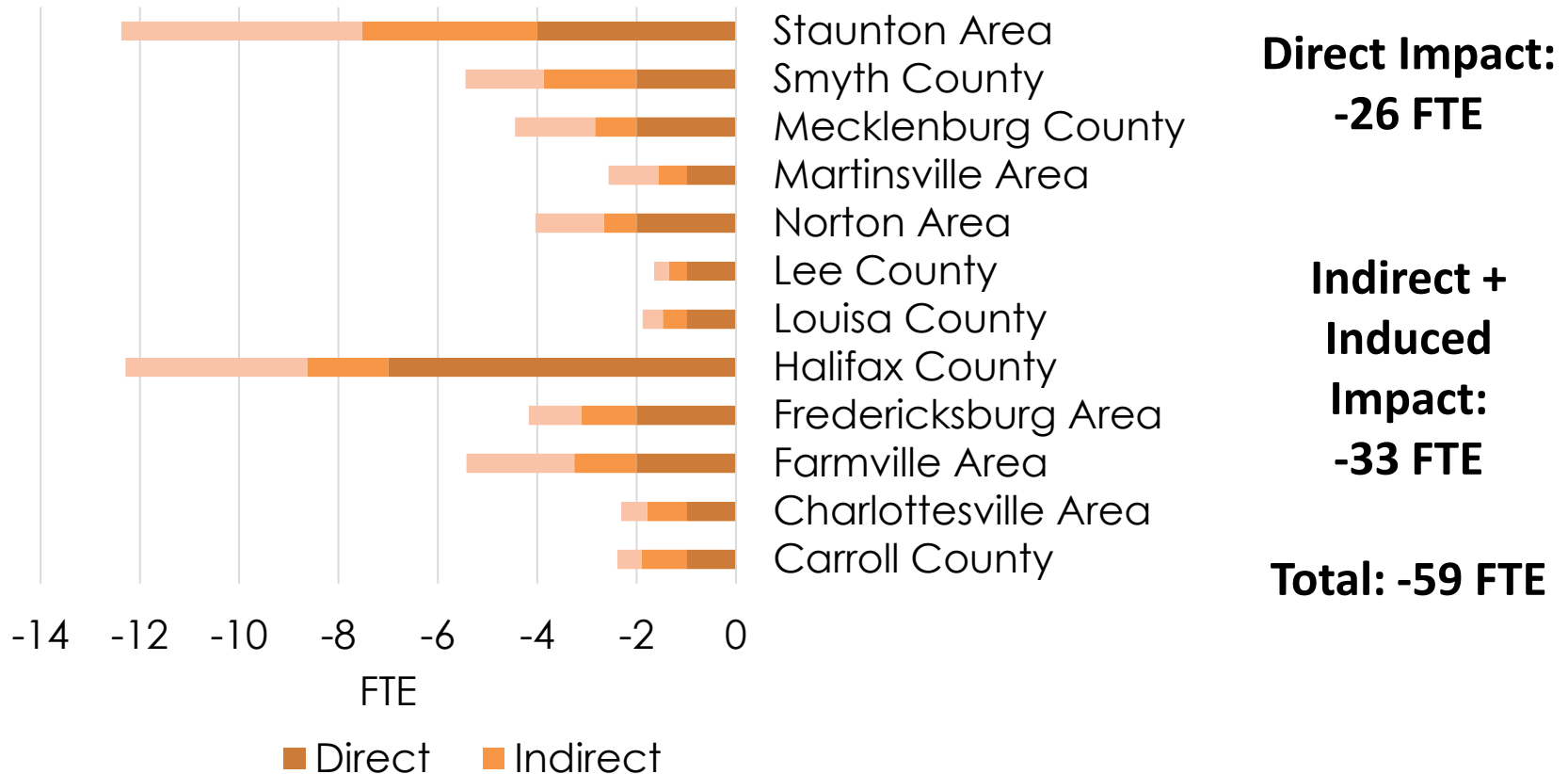
Health Workforce Impact Case Study: SLRP 2018 Total Value Added Results



Health Workforce Impact Case Study: SLRP 2018 Total Value Added Results

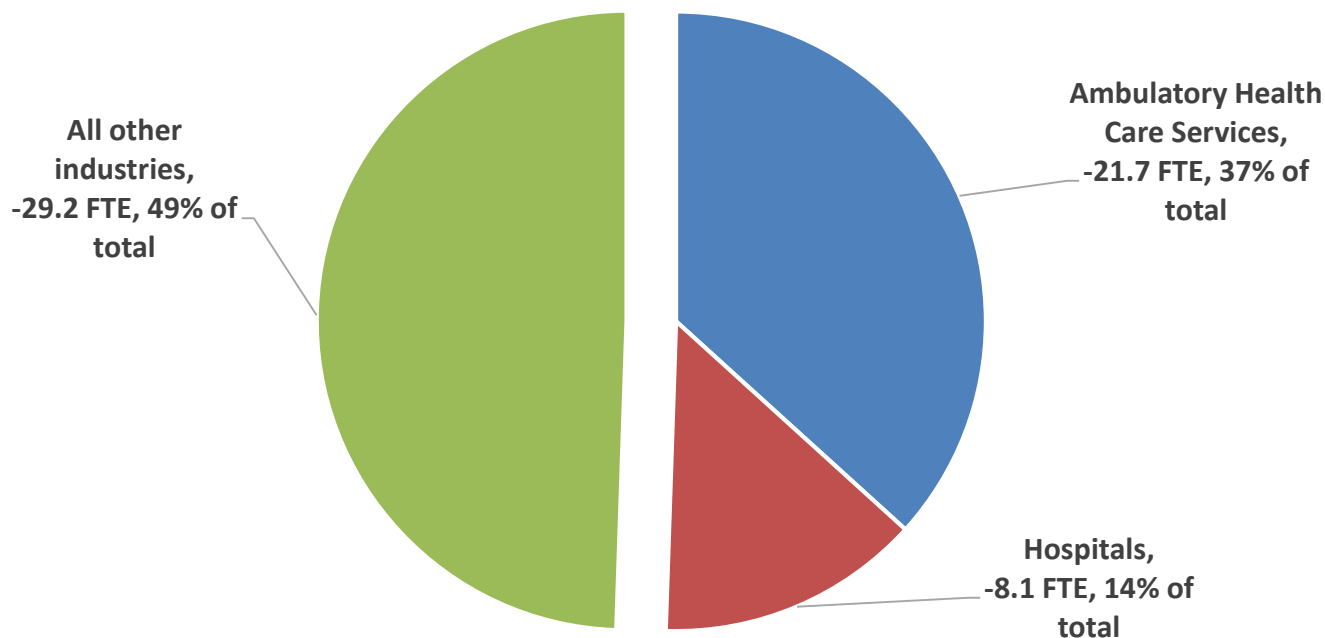


Health Workforce Impact Case Study: SLRP 2018 Employment Results



Health Workforce Impact Case Study: SLRP 2018 Employment Results

Potential Employment Loss,
Healthcare v. Non-Healthcare Sectors



Health Workforce Impact Case Study: Impact v. GA Contribution

Total VA-SLRP Loan Payments
\$1.012 million
General Assembly Contribution to VA-SLRP
\$300,000

Impact of VA-SLRP Elimination (12 Region Sum)
Total Value Added: -\$7.61 million
Employment (FTE): -59
State and Local Tax Revenues: -\$443,000

Funding Source: \$500,000/yr. for four years- HRSA grant

- \$300,000-General Assembly (State of Virginia)
- \$1,965,000- Tobacco Commission

Limitations of Economic Impact Analyses

- **IMPLAN captures the within-region impact of a change in economic activity, but relies on assumptions.**
 - Output-per-worker and broad industry structure patterns drive the models.
 - Marginal effect of each worker is constant.
 - Study area may obscure the overall net effect.
- **Economic Impact Analysis in IMPLAN does not capture:**
 - Population health effects and lost productivity.
 - Forward linkages, long-term impacts, and market adaptations.
 - The complexity of health care as a “product.”

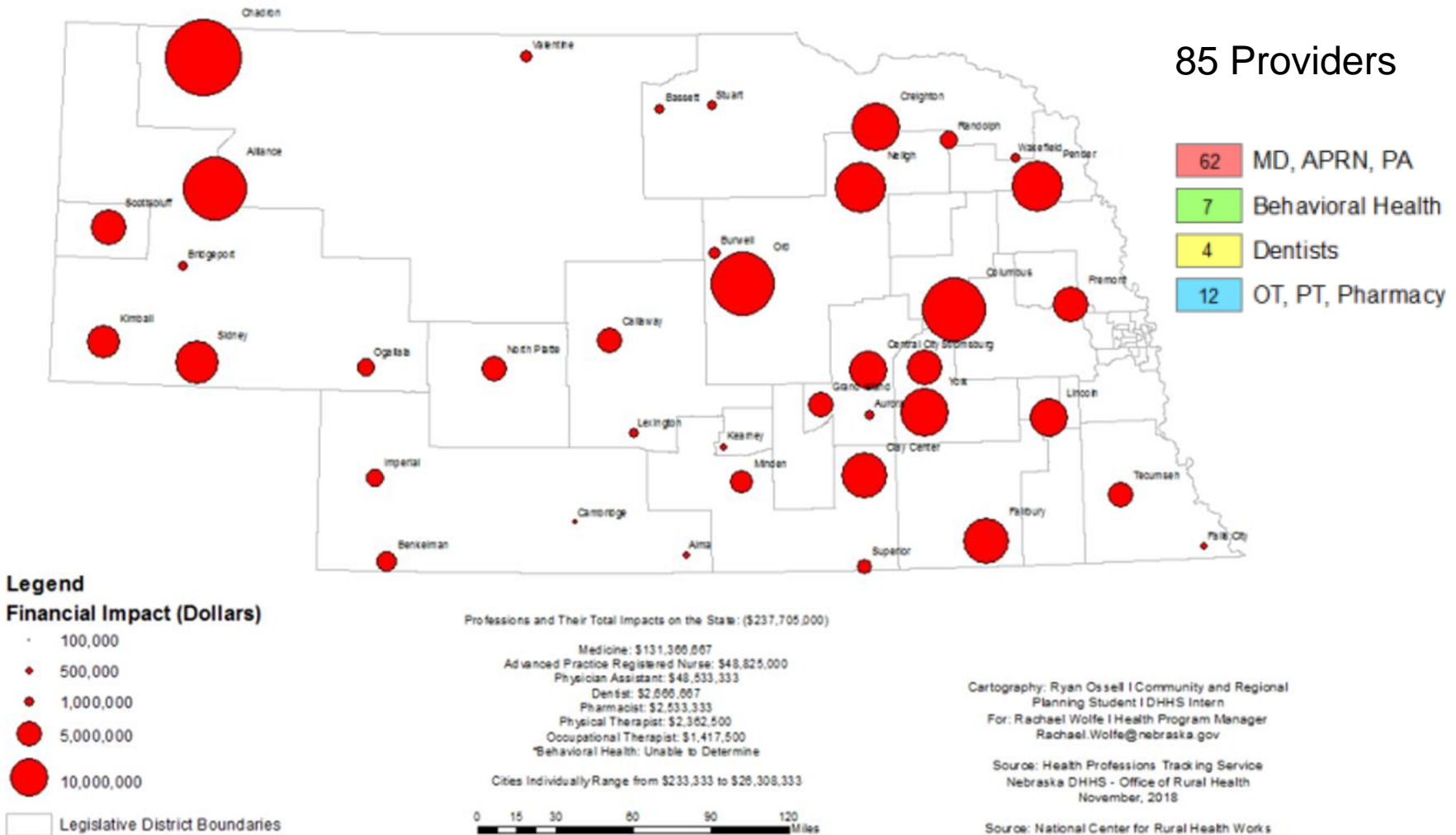
Room for Improvement

- **There is room for improvement here; better inputs yield better outputs.**
 - Accurate data on practice locations, purchasing patterns, provider productivity, patient location.
 - Spousal effects?
 - Population health and long-term economic impacts.

Still, with adequate framing, this analysis sends the right value message to the target audience.

Financial Impact of Currently Obligated Nebraska Loan Repayment Program and Nebraska Student Loan Program Providers on Nebraska

85 Providers

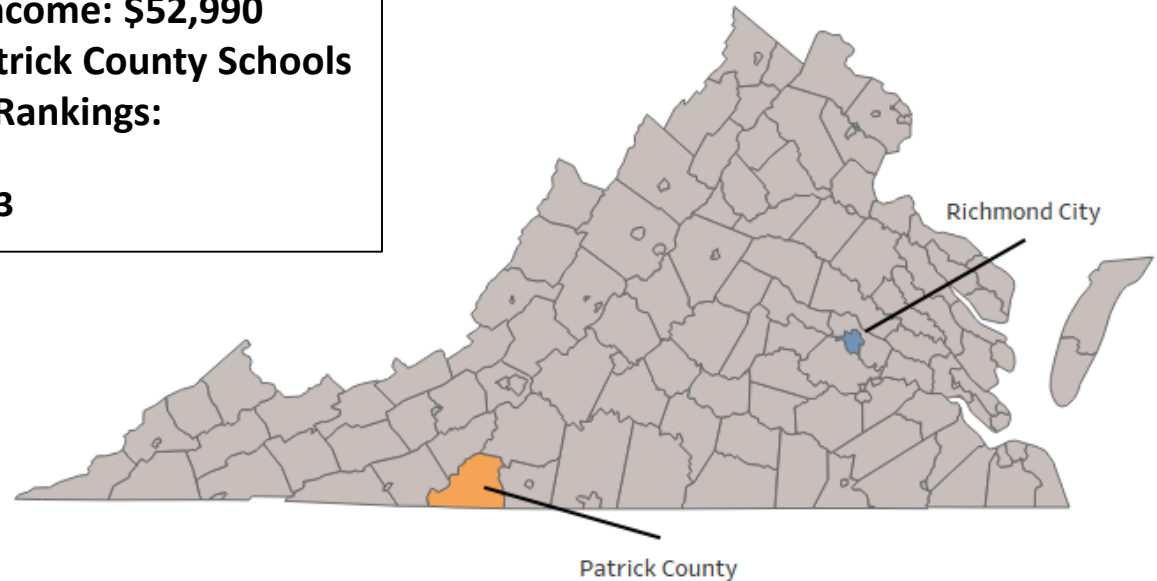


Tool: Economic Impact Analysis, TBD

CASE #2: CRITICAL ACCESS HOSPITAL CLOSURE

Patrick County, Virginia

- **Population ~18,000**
 - Town of Stuart: ~1,400
- **Median Age: 50**
- **Median Household Income: \$52,990**
- **Biggest Employer: Patrick County Schools**
- **RWJF County Health Rankings:**
Health Factors: 100/133
Health Outcomes: 98/133



Sources: RWJF 2019 County Health Rankings, VEDP

Pioneer Community Hospital of Patrick County, VA: A Very Abbreviated Timeline

- 2009: Pioneer Health Services (PHS) leased and opened Pioneer Community Hospital of Patrick
- 2016: PHS declares bankruptcy
- 2017: Hospital closes (September); building sold at auction (December)
- 2018: Numerous state and local attempts to build path towards reopening (licensure, purchase/lease offers, health system inquiries, etc.)
- **Currently: Hospital remains closed; building vacant; no indication of interested operator.**

Sources: TheEnterprise.net, Richmond Times Dispatch, Martinsville Bulletin, Longwood SBDC, VCC Social Impact Report

Hospital Closure: Standard Economic Impact Analysis with IMPLAN

Patrick County, VA	Jobs (FTE)	Economic Impact
Direct Effect	-133	-\$6,089,666
Indirect Effect	-36	-\$1,647,684
Induced Effect	-17	-\$983,574
Total Effect	-186	-\$8,720,925
State and Local Tax Impact: -\$555,096		

Source: IMPLAN

Simple Economic Impact Analysis is NOT a Good Fit

- **Without additional detailed information specific to the hospital, the results are likely inaccurate.**
 - Data are from 2016, and may not represent hospital employment and operations at the closure.
 - Rural is different.
- **Even if correct, the standard IMPLAN-based analysis is incomplete.**
 - Net impacts are unclear (workforce relocation, patient care redistribution/loss).
 - Results mask the broader impacts of the closure (long-term, amenity effect, population health).

Refining the Inputs

- Reviewed news coverage and available data to improve hospital operation/purchasing patterns.
 - Deep dive into IMPLAN data/balance sheets
 - Bankruptcy filings
 - VHI hospital industry data
 - Financial documents/Stroudwater report
- Pulled internal and external data sources to better assess net impacts.
 - Local economic and demographic data (e.g., CBP, Census, QCEW, Virginia LMI and VDEP)
 - Previous CHNA, internal data, CHR

Reassessing: Telling the right story

- There has been significant research on the trend in rural hospital closures (causes and consequences).
- Each community has unique attributes, but without changes in the underlying causal factors, reopening a hospital may be a short-term fix.
- Given that the hospital has already closed, what analyses will tell the “right” story to appeal to the “right” audience?
 - Comprehensive economic impact is important, but how will that help the community now?

Patrick County: Qualitative Research

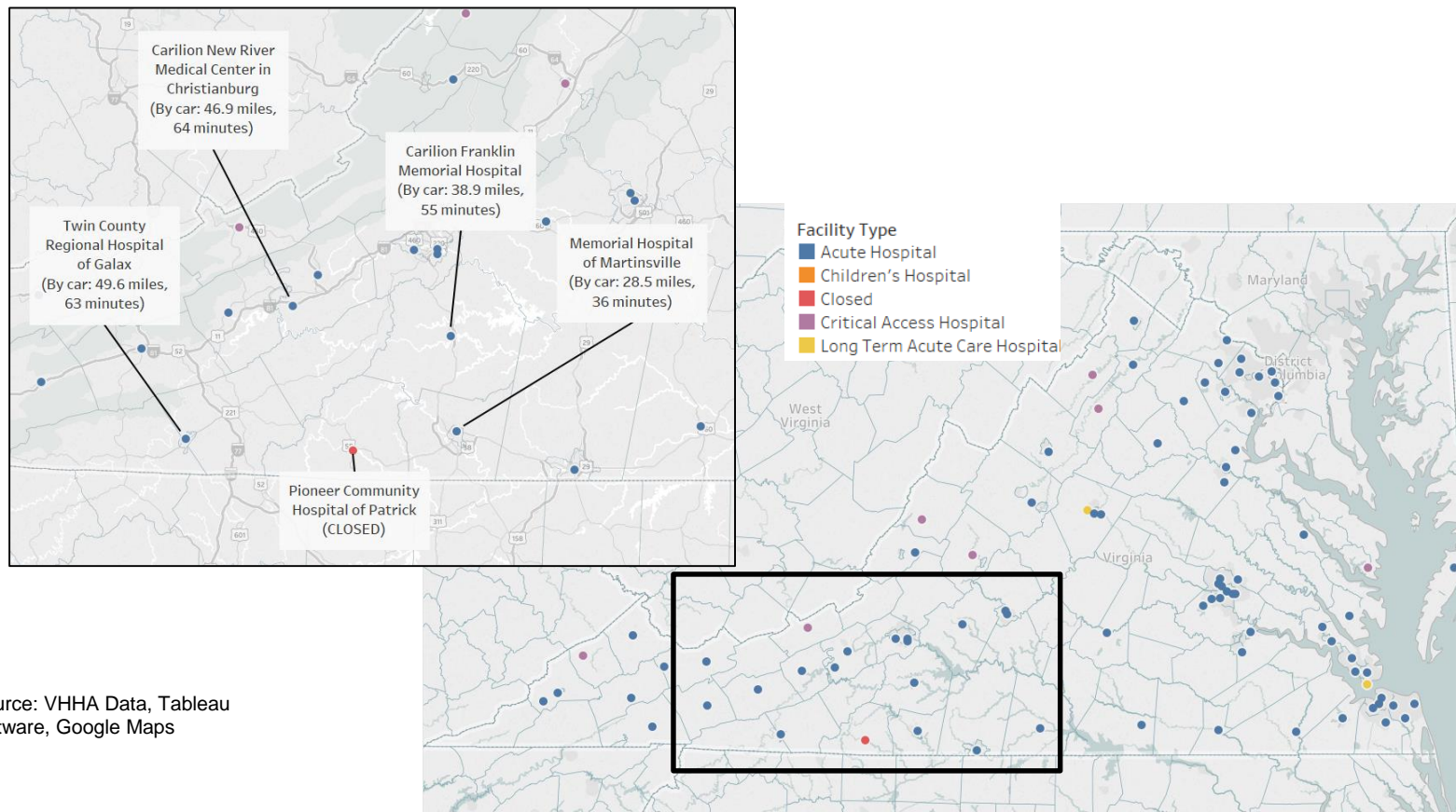


- Reached out to OHE contact in nearby city
- Introductory information-gathering visit (June 2019)
- Met with local stakeholders to understand the impact of the closure (and how we might help) in Stuart, VA

Patrick County: Qualitative Research

- Economic and health consequences of the closure are already evident.
- EDA and county officials have exhausted options on reopening the hospital.
- EMS and local clinic have adapted to fill some of the gaps in care, but are under tremendous strain.
- **Preexisting and ongoing challenges have been exacerbated by hospital closure.**

Patrick County: Surrounding Hospitals



Source: VHHA Data, Tableau software, Google Maps

Patrick County: Value of Visit

- Developed appreciation for the geography of the area and the dedication of the community members.
- Started a genuine dialogue about community needs and VDH resources.
- Learned some surprising things about the population, workforce, and healthcare landscape.
- Gathered ideas for programs and potential entities with economic interests in the area.

Patrick County: Next Steps

- Return to the data with new context, shifted focus, and ideas to generate meaningful economic analysis.
 - Emphasize population health impacts, along with economic costs, of the closure—in an actionable way.
 - Focus on targeted CBA/ROI of potential programs, grant opportunities, and private investments.
- Build sustainable relationships with local health district, EDA, health care workforce, and community members.
 - Talk to EMS director, free clinics, county officials.
 - Collect data to improve impact analysis.
- Evaluate state, agency, and local policies.

Goals for Economic Analysis with SORH

- Enhance economic impact analysis by:
 - Improving data accuracy and model structure
 - Adding medium- and long-term population health and productivity impacts.
- Work with communities to focus on analyses that:
 - demonstrate the value of local initiatives,
 - leverage and highlight community strengths, and
 - target the right audience.
- Synthesize lessons learned from different communities to inform broader agency policies and programs.

Summary

- Economic analyses can help tell the story of the health care industry in rural communities.
- Analyses should be guided by asking the right questions to understand the specific challenges and leverage the strengths of each community.
- Adapting models and analyses to represent and benefit rural communities requires direct outreach.

Got Questions?

For more information, please contact:
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