



Report on Target Loan Repayment Programs

Part II of North Carolina Session Law 2018-88

submitted to

Joint Legislative Oversight Committee on Health and Human Services

by

N.C. Department of Health and Human Services

October 01, 2018

Executive Summary

In Part II of Session Law 2018-88 the North Carolina General Assembly (NCGA) directed the North Carolina Department of Health and Human Services (DHHS), Office of Rural Health (ORH) to report on the North Carolina State Loan Repayment Program, with directed attention to access to dentist in rural areas. An interim report is due October 1, 2018 and a final report is due October 1, 2019. These reports document how ORH is administering the North Carolina State Loan Repayment Program to ensure that it aligns with the following goals: 1) targets increasing the number of health care providers in rural areas of the State; 2) is coordinated with the National Health Service Corps and Federal Loan Repayment programs, and well as any other publicly or privately funded programs, to maximize funding to increase the number of health care providers in rural areas of the State; and 3) ensures both recruitment and retention of health care providers in rural areas of the State. Further, DHHS was directed to work in conjunction with the Cecil G. Sheps Center for Health Services Research (Sheps Center) to identify the need for dentists in rural areas in North Carolina and develop recommendations to target loan repayment funds for dentists in rural areas that have been identified as having the greatest need for dentist.

DHHS and ORH welcomes the opportunity to examine, align and report on the structure and outcomes of the North Carolina State Loan Repayment Program as well as examine and respond to the need for dentists in rural communities. The North Carolina State Loan Repayment Program has played an integral role in creating and maintaining access to health care providers. In 1973, North Carolina was the first state in the nation to create a State Office of Rural Health. In 1987, the North Carolina General Assembly passed legislation creating and supporting the North Carolina State Loan Repayment Program within ORH. Since that time, the North Carolina General Assembly has appropriated funds to the State Loan Repayment Program which ORH has administered to increase access to quality health care in rural and underserved communities by recruiting and providing incentives to providers who agree to serve those communities.

The incentives provided include loan repayment and high need service bonuses. Loan repayment awards include up to \$100,000 for physicians/dentists, paid on a graduated scale, over a four-year service commitment and up to \$60,000 for advanced clinical providers following the same process for payment and service commitment. High Need Service Bonuses are used as a recruitment tool for providers without loan repayment needs; however, these awards are provided as lesser amounts (up to \$50,000 for physicians/dentists and up to \$30,000 for advanced clinical providers) and requires a four-year service commitment. ORH also aids with recruitment of providers when the placement does not meet criteria to offer incentives.

Access to high quality health care in rural communities is a critical need; therefore, the North Carolina State Loan Repayment Program is not the only program focused on increasing access to care in these communities. ORH has a strong history of maximizing the North Carolina State Loan Repayment funds by leveraging other loan repayment programs such as the federal National Health Service Corps program and partnering with private programs such as the North Carolina Medical Society's Community Practitioner Program. Further, ORH strategically used North Carolina State Loan Repayment appropriations as match to draw down additional federal loan repayment funds through a competitive grant from the Health Resources and Services Administration (HRSA) State Loan Repayment Program (SLRP) to recruit behavioral health providers. To ensure

that the North Carolina State Loan Repayment Program leverages other loan repayment programs to increase the number of providers in rural communities, ORH encourages providers and sites to apply to the National Health Service Corps (NHSC) before North Carolina State Loan Repayment Funds are accessed. In order to maximize the opportunity to apply for funds, ORH assists in the cultivation of new NHSC sites throughout North Carolina by providing assistance to provider practices during the application process.

ORH also meets and communicates regularly with partners administering the federal and privately funded loan repayment programs to ensure the loan repayment programs are complementary. ORH co-chairs the North Carolina Rural Health Leadership Alliance Workforce Recruitment and Retention Workgroup, a group of provider associations, loan repayment programs, educational groups, and interested parties, to ensure regular communication, collaboration and alignment with key stakeholders and programs supporting placement of providers.

Recruitment and retention of quality providers is key to ensuring optimal health in rural communities. ORH tracks contract completion rates and uses this as a method of assessing provider retention. This data has shown that providers receiving incentives to practice in rural areas, have a higher contract completion rate in early placement that reduces as time progresses. Another data tool to track retention is provider feedback. ORH partners with the Sheps Center, who administers and evaluates questionnaires completed by loan program participants, to assess retention of providers based on survey response. The top survey responses that contribute to a provider's likelihood of staying in a community beyond his or her service commitment are feeling their work is important and valuing the mission of the practice. Furthermore, community safety, family contentment, employment of their spouse and ability to easily access things they enjoy were equally important to the provider's willingness call their rural practice site, "home".

In examining and responding to the identification of the need for dentists in rural areas of the State, data from the Sheps Center reveals that most dentists have practices in and around urban counties. Further, 74 of North Carolina's 100 counties are designated as a dental health professional shortage areas (HPSAs). Over the past ten years, ORH has funded \$8,852,360 towards 220 contracts for dentists to provide care in rural and underserved areas of the state. Ninety four percent (207) of those contracts supported loan repayment through the North Carolina State Loan Repayment Program and six percent (13) provided High Needs Service Bonus.

In summary, ORH will continue to operate the North Carolina State Loan Repayment Program in its current state until the completion of the final October 1, 2019 report. It is expected that the process will yield opportunities for at least annual review of the North Carolina State Loan Repayment Program and opportunities for stakeholder input. ORH has maximized appropriations provided by the North Carolina General Assembly by leveraging National Health Service Corps funds (Federal funding) and other loan repayment programs. Further, ORH is working closely with partners and stakeholders to develop pipeline programs that build interest in healthcare careers and support youth from underserved communities. ORH acknowledges and appreciates the creation, engagement and long-term support provided by the North Carolina General Assembly to the North Carolina State Loan Repayment Program and to the Office of Rural Health.

North Carolina State Loan Repayment Program

North Carolina Session Law 2018-88, Part II, Section 3.(a) Target Loan Repayment Programs, directed the Office of Rural Health, Department of Health and Human Services to structure the North Carolina State Loan Repayment Program to align with the following goals: 1) targets increasing the number of health care providers in rural areas of the State; 2) is coordinated with the National Health Service Corps and Federal Loan Repayment programs, and well as any other publicly or privately funded programs, to maximize funding to increase the number of health care providers in rural areas of the State; and 3) ensures both recruitment and retention of health care providers in rural areas of the State.

This report includes an outline of the current North Carolina State Loan Repayment Program, its origins, and guidelines and concludes with plans for reviewing and revising the existing program to meet the needs of rural communities.

Founded in 1973 to focus on the needs of rural and underserved communities, the North Carolina Office of Rural Health (ORH) became the first State Office of Rural Health in the nation. To meet its mission of ensuring access to quality care, the ORH Placement Services Team serves both rural communities and urban underserved communities across the state by making compatible matches between job sites and providers, based on their mutual needs. Placement Services recruits primary care physicians, nurse practitioners and certified nurse midwives, physician assistants, dentists, dental hygienists, psychiatrists, and Masters-trained behavioral health professionals.

The North Carolina State Loan Repayment Program was approved by the North Carolina General Assembly in Session Law 1987-1100, Section 39.3 – Rural Obstetrical Care Incentive Pilot. Over time, the program has expanded its focus, with legislative changes in SFY 2006 and 2015. ORH has been the administrator of the program since inception, offering incentives to primary care providers practicing in rural and underserved areas across North Carolina.

To focus on access to care in rural and underserved communities, a provider must agree to practice in a community and practice site deemed eligible for the program to receive loan repayment. Automatic site eligibility is granted for the following North Carolina facility types:

- National Health Service Corps (NHSC) certified sites
- Alcohol and Drug Abuse Treatment Centers (Julian F. Keith ADATC, Walter B. Jones ADATC, R. J. Blackley ADATC) – *psychiatrists only*
- State mental health hospitals (Cherry Hospital, Central Regional Hospital, Broughton Hospital) – *psychiatrists only*
- Sites with an associated federally designated Health Professional Shortage Area (HPSA) score and/or that are making substantive strides toward achieving NHSC site certification
- Critical Access Hospitals

North Carolina State Loan Repayment Awards are provided to primary care physicians, general dentists and psychiatrists not to exceed \$100,000 for four years of service. North Carolina State Loan Repayment Awards for nurse practitioners, certified nurse midwives, physician assistants, dental hygienists and psychiatric nurse practitioners are provided not to exceed \$60,000 for up to 4 years of service. Amounts paid over the four years are graduated with the highest repayment disbursement in the fourth year to enhance retention. Providers must be in their practice site no more than six months to be eligible for the North Carolina State Loan Repayment Program.

For providers without educational loans, High Needs Service Bonus Awards are available to incentivize practice in rural locations and underserved communities. Sites must be in a Health Professional Shortage Area (HPSA) and use a sliding fee scale. High Needs Service Bonus for primary care physicians, general dentists and psychiatrists are provided not to exceed \$50,000 over four years. High Needs Service Bonus Awards for certified nurse midwives, physician assistants, dental hygienists and psychiatric nurse practitioners are provided not to exceed \$30,000 over four years.

Practice sites in need of a provider and/or the provider, may request funds from ORH to support travel to and from the practice location for the interview process.

ORH works with several partners in its efforts to maximize the North Carolina State Government Loan Repayment Program:

1. National Health Service Corp assists providers in need of loan repayment and offers up to \$50,000 for two years of service in a NHSC designated site. Providers can reapply for the program upon satisfactory completion of each commitment. ([NHSC Loan Eligibility](#)). The ORH Placement Team coordinates with the NHSC and interested practice sites to assist with the certification application as an NHSC site. Sites are eligible to apply once a year for NHSC site designation ([NHSC Site Designation](#)). Determining NHSC site eligibility and loan repayment is the first step in ORH loan repayment technical assistance.
2. If NHSC and the NC State Loan Repayment Programs are not options, the ORH Placement Services Team refers sites to the North Carolina Medical Society Foundation's [Community Practitioner Program](#), which maintains its own set of eligibility standards.

The tables below reflect provider placements through federal and state loan repayment programs:

Incentive Year	Incentive Type			Year Total
	NC State Loan Repayment Program (State Appropriations)	High Need Service Bonus (State Appropriations)	SLRP (Federal Funds)	
2013	\$2,271,795	\$218,000	-	\$2,489,795
2014	\$2,860,740	\$190,000	-	\$3,050,740
2015	\$2,834,535	\$353,642	-	\$3,188,177
2016	\$2,312,574	\$199,290	\$101,728	\$2,613,592
2017	\$2,834,411	\$110,000	\$300,000	\$3,244,411
2018	\$2,616,449	\$401,900	\$161,250	\$3,179,599
Grand Total				
Total	\$15,730,504	\$1,472,832	\$562,978	\$17,766,314

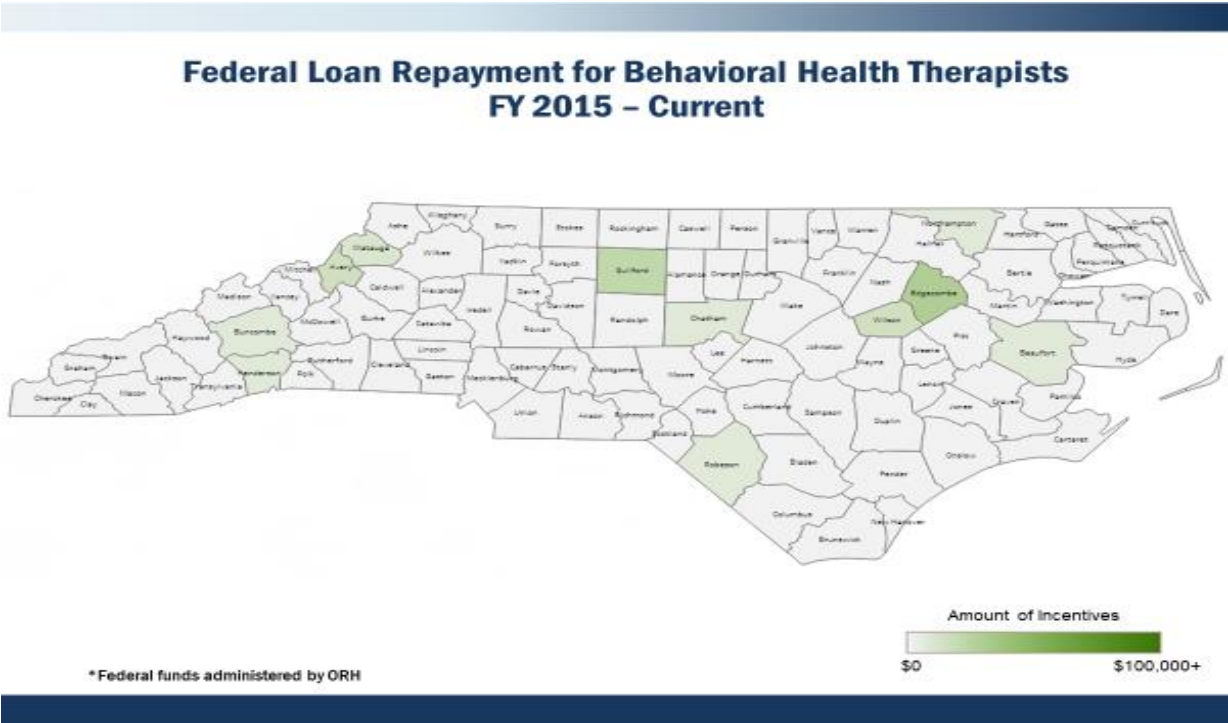
The maps and charts below reflect provider placements through federal and state loan repayment programs:



49 New awards in SFY 2017 for a total of \$2,160,572.57

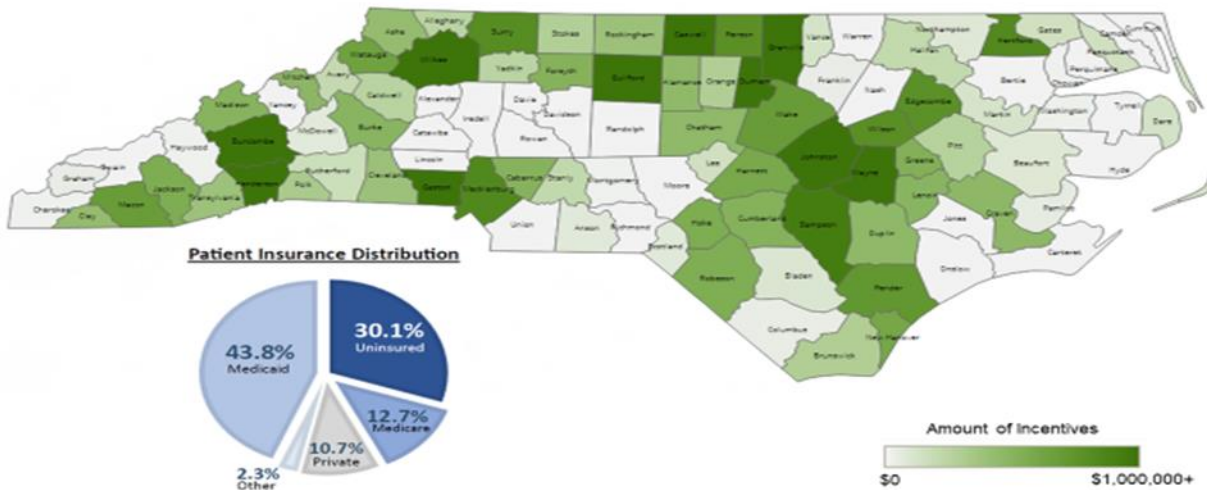
60 Continuation awards in SFY 2017 for a total of \$933,565.36

* Data from 2017 NC Field Strength Report



*Federal funds administered by ORH

State Loan Repayment and High Needs Service Bonus for SFY 2013 – Current



Recruitment and Retention Data

ORH collects recruitment and retention data to optimize, target and modify program technical assistance and outreach. Data documenting the recruitment process matches the provider with a requesting and eligible practice site to begin the process. The ORH Placement Team works with the requesting provider and selected site to make the match, continuing the relationship with the provider at least through the loan repayment contract process (up to four years).

One method of examining the retention of providers is contract completion and default rates. The following tables, document completion and default rates for the State Loan Repayment Program and High Needs Service Bonus. 60% of providers complete their four-year commitment.

ORH Contract Completion and Default Rates

State Loan Repayment and High Needs Service Bonus

Year	Retention %
2018	55/58 = 95%
2017	46/55 = 84%
2016	35/57 = 61%
2015	58/78 = 74%
2014	74/94 = 79%
2013	54/72 = 75%

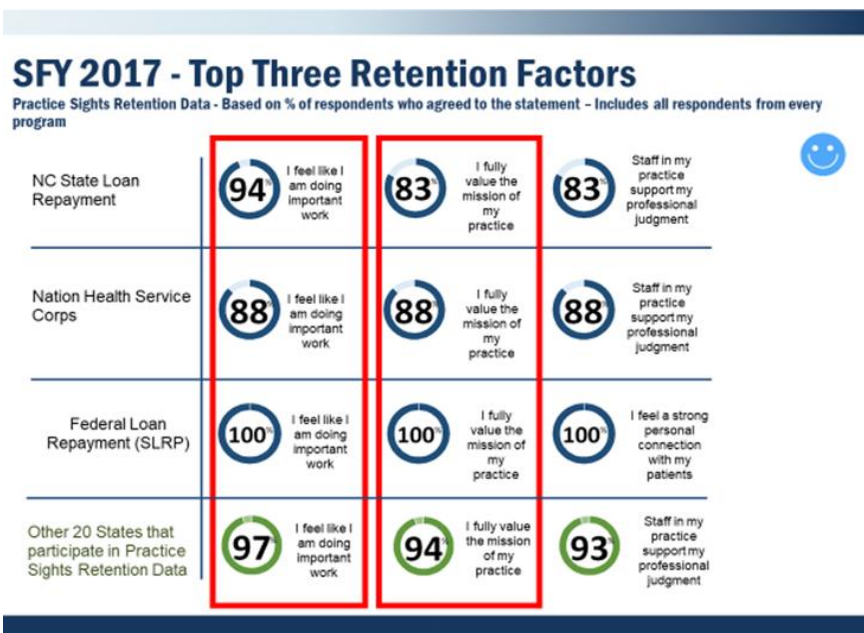
Federal Loan Repayment for Behavioral Health Therapists

Year	Retention %
2018	5/5 = 100%
2017	9/10 = 90%
2016	4/4 = 100%

Retention % is number of contracts retained during loan period/total contracts during loan period.

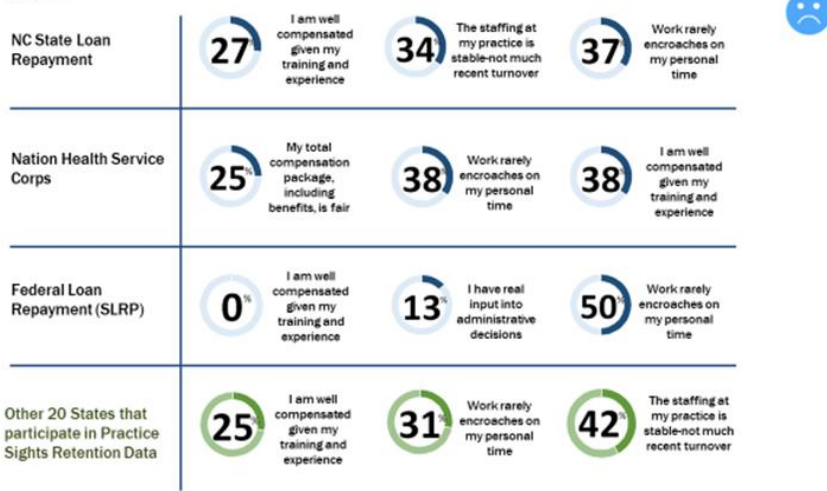
Additionally, ORH collects and reviews data on retention factors as reported by providers. ORH participates in the Practice Sights Retention Collaborative and Data Management System ([Practice Sights](#)) with 22 other states comparing recruitment and retention rates. The Retention Collaborative with the Cecil G. Sheps Center at UNC-Chapel Hill (Sheps Center) administers and evaluates questionnaires completed by loan program participants. North Carolina State Loan Repayment Program recipients are required to participate in the questionnaire process throughout their contract obligation for loan repayment funds. Providers complete surveys at the end of each year (End-Of-Year Survey), end of each contract (End-Of-Contract Survey), and years after completing the contract (Alumni Survey). The questionnaires query the provider's satisfaction with the practice site, the community and their family's satisfaction in the community. ORH has recently improved its ability to share data with the Retention Collaborative and will make further modifications to the North Carolina State Loan Repayment Program.

The following tables outline the top positive and negative survey responses that contribute to a provider's likelihood of staying in a community beyond his or her service commitment was "feeling like I am doing important work" and "fully valuing the mission of my practice" being high retention factors and "compensation" and "time away from work and involvement in administrative decisions" being low retention factors.



SFY 2017 - Lowest Three Retention Factors

Practice Sights Retention Data - Based on % of respondents who agreed to the statement - Includes all respondents from every program



Loan repayment, recruitment and retention represent a few of the critical supports that impact the health of rural communities. ORH recognizes the importance of the overall health of the community (economic vitality, housing, food, transportation etc.) and expects to fully utilize resources and expertise at DHHS/ORH to explore strategies that will provide maximum benefit to those in North Carolina's rural communities. Furthermore, community safety, family contentment, employment of their spouse and ability to easily access things they enjoy were equally important to the provider's willingness to call their rural practice site "home."

SFY 2017 - Top Three Retention Factors - Community

	1	2	3
NC State Loan Repayment	My spouse is happy in the community	We feel safe in the community	We have access to most of the things we like to do
Nation Health Service Corps	The community provides well for my children's need	My children are happy in the community	We feel safe in the community
Federal Loan Repayment (SLRP)	We feel safe in the community	My children are happy in the community	My spouse is happily employed
Other 20 States that participate in Practice Sights Retention Data	We feel safe in the community	My children are happy in the community	My spouse is happy in the community

*Practice Sights Retention Data - Based on % of respondents who agreed to the statement - Includes all respondents from every program

Next Steps

In preparation for the final legislative report due October 1, 2019, ORH will engage stakeholders to gather feedback about the current North Carolina State Loan Repayment program, along with ideas to serve the most rural and underserved communities more effectively. ORH will use this feedback, as well as information obtained from data collection and analysis, to guide modification to the North Carolina State Loan Repayment Program.

Data Collection and Analysis

ORH will compile and examine the following data sets as well as review other state and national loan repayment programs and incentives. This information will be shared with stakeholders and used to inform enhancements to the program: s

1. Data from the Practice Sights online retention database related to loan repayment awards by the North Carolina State Loan Repayment Program and the North Carolina Medical Society Foundation's Community Practitioner Program and retention of awardees,
2. Practice Sights Retention Collaborative and Data Management System, and
3. Information from other states related to their best practices associated with their respective loan repayment programs as related to recruitment and retention of healthcare providers; and
4. Health Professional Shortage Area Designations (HPSA).

Stakeholder Engagement

ORH will use the following methods to engage stakeholders in both soliciting feedback and guiding program improvements:

- Statewide engagement - ORH will present information and solicit stakeholder input via four regional meetings. Providers, clinics, rural hospitals, and safety net groups will be invited to participate and provide feedback regarding provider/practice site needs and possible modifications to the current North Carolina State Loan Repayment Program and ORH Placement Team activities.
- North Carolina Rural Health Leadership Alliance ([NCRHLA](#)) and its associated Workforce Workgroup – ORH participates in this multi-stakeholder partnership and co-chairs the Workforce Recruitment and Retention Workgroup. NCRHLA has representation from many statewide healthcare and community professional advocacy groups.
- Primary Care Advisory Committee – This group, established by Session Law 2017-57, provides regular input regarding the Community Health Grant program. The group includes representation from the NC Community Health Center Association, NC Association of Free and Charitable Clinics, NC Association of Local Health Directors, NC School-Based Health Alliance and the NC Healthcare Association. The NC Medical Society Foundation will be included in the review of current and future program recommendations.
- Targeted stakeholder feedback from education and training programs – ORH will meet with organizations engaged in expanding North Carolina's rural healthcare workforce pipeline, to include the North Carolina AHEC System, Residency Training Programs, and University Rural Training Track

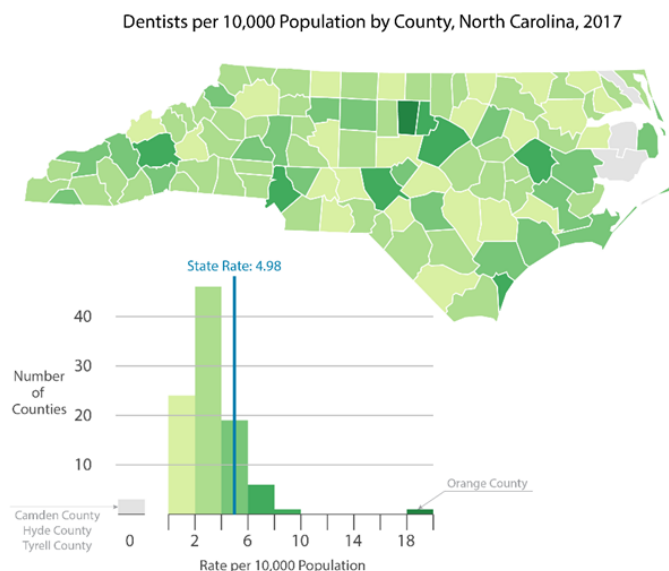
Programs. The meetings will provide feedback from key partners about possible partnerships among the NC LRP and provider education, training and placement.

- Targeted stakeholder process for feedback from other loan repayment programs - ORH will invite feedback and meet with other organizations engaged in loan repayment in North Carolina, including the North Carolina Medical Society Foundation's Community Practitioner Program and the NHSC Loan Repayment Program. This feedback from key partners engaged in complementary loan repayment programs may suggest additional opportunities between the North Carolina State Loan Repayment Program and other loan repayment programs.
- ORH will invite stakeholders to review its current policy and offer recommendations on areas for improvement.
- ORH will use internal data, as well as data from the Sheps Center, to identify areas where recruitment is lacking and will seek feedback from those communities on their recruitment needs.

ORH will continue to operate the North Carolina State Loan Repayment Program in its current state until the completion of the final October 1, 2019 report. It is expected the process will yield opportunities for ongoing review of the North Carolina State Loan Repayment Program and at least annual opportunities for stakeholder input.

Targeting Loan Repayment Funds for Dentists in Rural Areas

North Carolina Session Law 2018-88, Part II, Section 3.(b) directed DHHS to work in conjunction with the Sheps Center to identify the need for dentists in rural areas in North Carolina and develop recommendations to target North Carolina State Loan Repayment funds for dentists in rural areas that have been identified as having the greatest need for dentists. As illustrated below, data from the Sheps Center reveals that most dentists practice in and around urban counties.

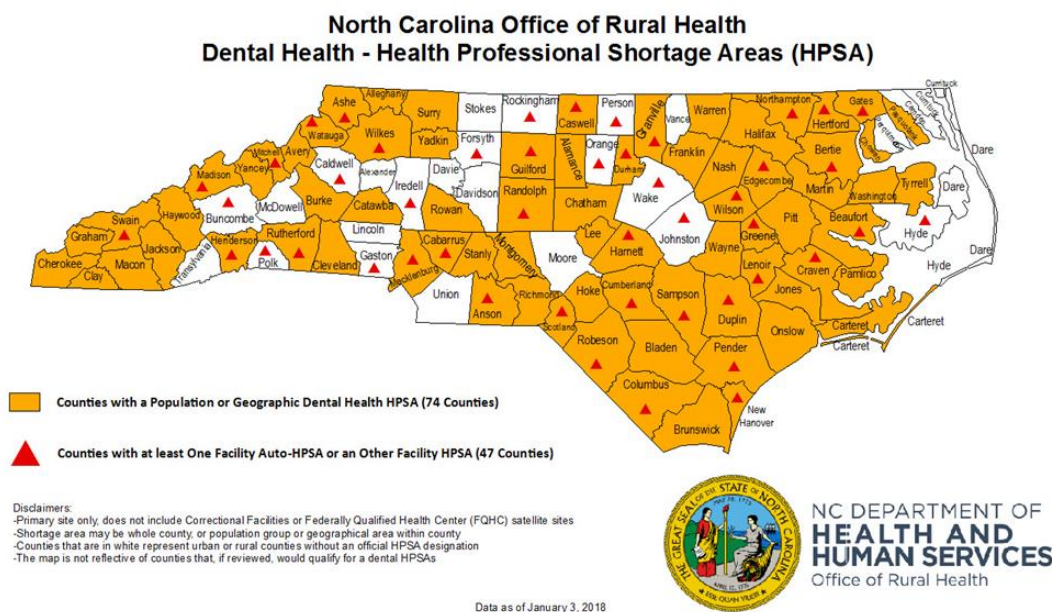


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Notes: Data include active, licensed dentists in practice in North Carolina as of October 31 of each year. Dentist data are derived from the North Carolina State Board of Dental Examiners. Population census data and estimates are downloaded from the North Carolina Office of State Budget and Management via NC LINC and are based on US Census data.
Source: North Carolina Health Professions Data System, Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill. Created August 20, 2018 at <https://nchealth-workforce.unc.edu/>.

While counties like Wake, Orange and Buncombe enjoy a healthy provider to population ratio for dentists, there are counties in the State that lack dental providers. Furthermore, many counties across the state have unhealthy provider to population ratios for dental providers, ORH continues to work on placement of providers in those counties to improve this ratio.

An additional data source used by ORH to determine need is the designation of Health Professional Shortage Areas (HPSAs). ORH uses the HPSA data along with data from the Sheps Center to focus recruitment efforts to place dentists in the areas of greatest need. Dental HPSAs have been designated as illustrated below. Counties request designation of HPSAs, ORH will work with undersigned counties across North Carolina to change their designation if appropriate.



North Carolina State Loan Repayment Program offers loan repayment to dentists and dental hygienists serving in HPSAs and other underserved communities across the state. The current ORH policy awards dentists up to \$100,000 for four years of service. Awards for dental hygienists are provided up to \$60,000 for four years of service. For providers who do not have educational loans, a High Needs Service Bonus is available for providers who agree to practice in rural/underserved areas in clinics that have a sliding fee scale and are in a Health Professional Shortage Area (HPSA). Awards for general dentists are provided up to \$50,000 over four years. Awards to dental hygienists are provided up to \$30,000 over four years.

Over the past ten years, ORH has funded \$8,852,360 towards 220 contracts for dentists to provide care in underserved areas of the state. Ninety four percent (207) of those contracts supported loan repayment

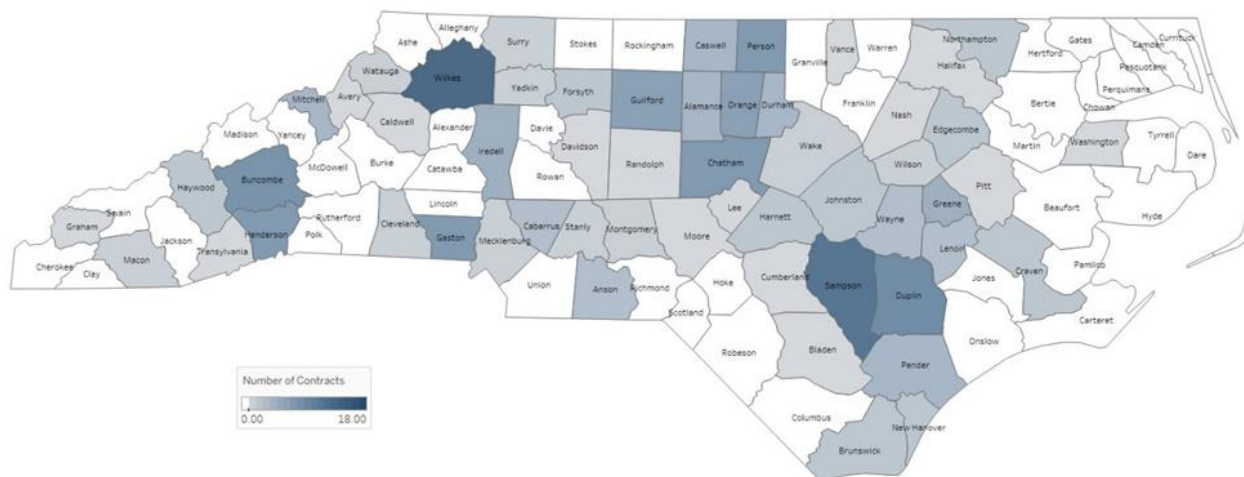
through the North Carolina State Loan Repayment Program and six percent (13) provided High Needs Service Bonus. An illustration of contract funding by year can be found below:

**North Carolina Office of Rural Health – Contract Funding for Dentists
(2008-2018)**

Incentive Year	Loan Repayment	Service Bonus
2008	846,163	70,000
2009	976,889	40,000
2010	941,028	35,000
2011	445,521	100,000
2012	290,240	15,000
2013	824,608	50,000
2014	915,587	
2015	543,106	100,000
2016	977,769	
2017	709,848	50,000
2018	872,601	50,000

The map below provides a graphic illustration of dental provider placements for FY 2008-2018.

**North Carolina Office of Rural Health - Dental Provider Placements with Incentive
Contracts from State Fiscal Year 2008 - 2018**

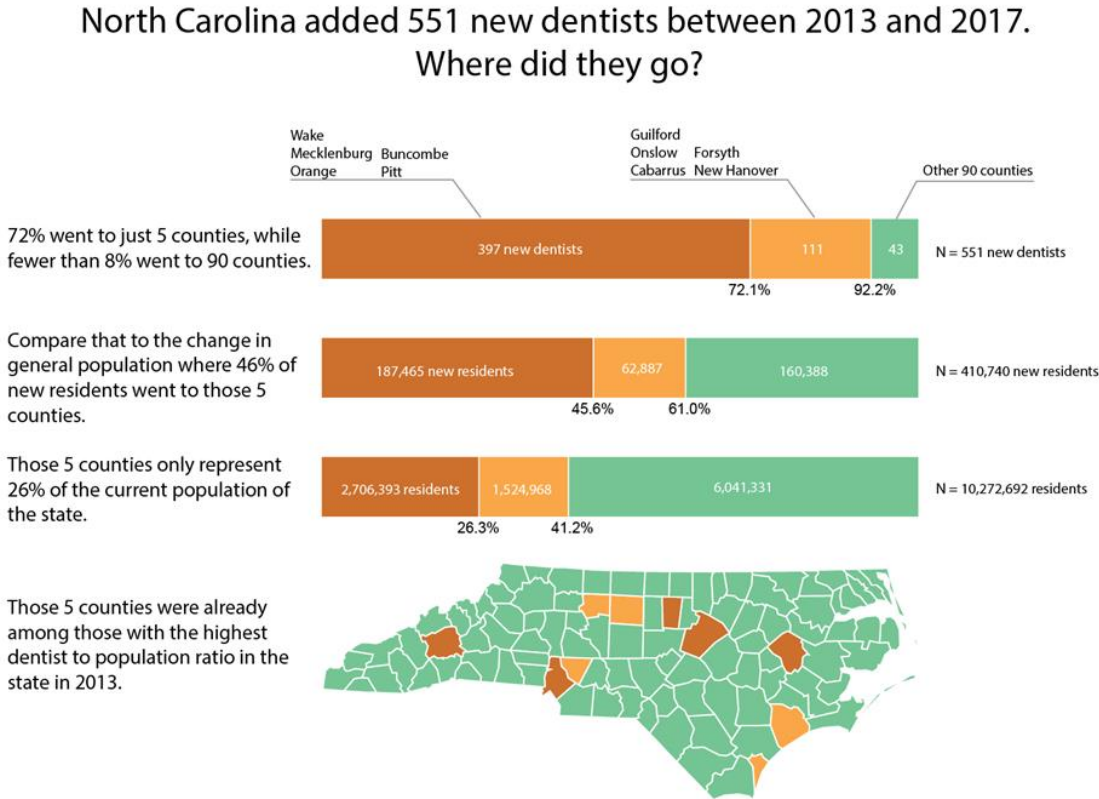


In collaboration with the Sheps Center, ORH is currently working on a longitudinal study of the North Carolina State Loan Repayment Program to assess dental providers' retention rates at the county and clinic levels. This information will be used to evaluate the program and guide decisions.

Beyond looking at contractual completion as a metric of retention, Practice Sights is a recruiting information database comprised of survey data completed by providers in loan repayment programs. Providers complete

surveys at the end of each year (End-Of-Year Survey), end of each contract (End-Of-Contract Survey), and years after completing the contract (Alumni Survey). The retention data goes back to 2010. There were 56 dentists who completed their End-of-Year and End-of-Contract Questionnaire during this time. Previously, this report documented years of anticipated retention for all providers (including dentists) in the North Carolina State Loan Repayment Program.

Seventy-two percent of all dentists went to five counties (Wake, Mecklenburg, Buncombe, Orange and Pitt) between 2013 and 2017. Moreover, even with changes in the population in the State, newly trained dentists are most likely to practice in five counties. The graphic below demonstrates the misalignment of dentists relative to need in our state. The same counties, with a pre-existing high dental professional population, are acquiring new dentists at a higher rate than other areas of the state. Distribution of the dental workforce continues to favor urban areas, not areas of need.



Notes: Data include active, licensed dentists in practice in North Carolina as of October 31 of each year. Dentist data are derived from the North Carolina State Board of Dental Examiners. Population census data and estimates are downloaded from the North Carolina Office of State Budget and Management via NC LINC and are based on US Census data.
Source: North Carolina Health Professions Data System, Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill. Visit <https://nchealthworkforce.unc.edu/>.



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Next Steps

The process to review and modify the North Carolina State Loan Repayment Program for dentists will follow similar processes, and in some cases in tandem, with those described in response to Section 3.(a). as outlined beginning on page 10 of this report. Stakeholder engagement, however will be expanded as noted below.

Stakeholder Engagement

In addition to the stakeholder engagement described on page 10 in response to Section 3.(a):

- ORH will invite feedback from the North Carolina Dental Society and the North Carolina Dental Hygienists' Association
- ORH will meet with organizations engaged in expanding North Carolina's rural oral healthcare workforce pipeline, to include the North Carolina AHEC System, Residency Training Programs, and University Rural Training Track Programs, East Carolina University and the University of NC-Chapel Hill Schools of Dentistry. These dedicated meetings will provide valuable feedback from key partners tasked with creating the next generation of healthcare providers about possible synergies between the North Carolina State Loan Repayment Program, and provider education and training.
- ORH will invite stakeholders to review its current policy and offer recommendations on areas for improvement
- ORH will use internal data, as well as data from the Sheps Center, to identify areas where recruitment is lacking and will seek feedback from those communities on their recruitment needs

Conclusion

In summary, ORH will continue to operate the North Carolina State Loan Repayment Program in its current state until the completion of the final October 1, 2019 report. It is expected the process will yield opportunities for at least annual review of the North Carolina State Loan Repayment Program and opportunities for stakeholder input. ORH has maximized appropriations provided by the North Carolina General Assembly by leveraging National Health Service Corps funds (Federal funding) and other loan repayment programs. Further, ORH is working closely with partners and stakeholders to develop pipeline programs that build interest in healthcare careers and support youth from underserved communities. ORH acknowledges and appreciates the creation, engagement and long-term support provided by the North Carolina General Assembly to the North Carolina State Loan Repayment Program and to the Office of Rural Health.