



## Foundation for Nursing Excellence: *Regionally Increasing Baccalaureate Nurses in North Carolina (RIBN)*

BUSINESS CASE ANALYSIS  
AND ECONOMIC IMPACT

### Executive Summary and Recommendation

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# Executive Summary

This research examines the economic impact of the Regionally Increasing Baccalaureate Nurses in North Carolina (RIBN) initiative — an innovative new educational track to BSN sponsored by the Foundation for Nursing Excellence (FFNE) — on its key stakeholders.

RIBN is a new educational partnership between community colleges and universities across North Carolina that blends the best of both the two year community college based ADN and the four year university based BSN degree programs (*FFNE RIBN Academic Progression in Nursing* proposal to the Robert Wood Johnson Foundation, 2012). RIBN students are dual enrolled by both a community college and a university and spend the first three years home-based at the community college and the fourth year enrolled at the university to complete their BSN degree. It is projected that RIBN will eventually include 55 community colleges and 15 universities organized into regional collaborative or partnerships across the state. The current plan for RIBN envisions growing the program to a steady state of 938 dual enrolled RIBN students by 2020, with 763 enrolled at community colleges and 175 enrolled as additional fourth year nursing students at universities. Fully developed, a total of 767 RIBN BSN students will have graduated and entered the workforce by 2020 and an additional 175 RIBN BSN students will graduate and enter the workforce each year thereafter.

The four key stakeholders in RIBN are

- Nursing students
- Community colleges
- Universities
- Hospitals and other “practice provider” employers.

Initial planning by FFNE hypothesized that RIBN would be cost neutral for community colleges and universities to participate and that hiring RIBN BSN graduates instead of ADN RNs would result in cost savings and other benefits for employers like hospitals and other practice providers across North Carolina.

The major findings of this study with respect to the four key stakeholders are as follows:

- 1.** For nursing students choosing between a two year ADN, a four year BSN, or a RIBN BSN education, the RIBN BSN is financially more worthwhile over a lifetime nursing career than either an ADN or a traditional four year BSN. Furthermore, the RIBN BSN enables a nurse to be more fully engaged in the nursing profession sooner, including qualifying for leadership positions, fully participating in case management and progressing along professional nursing career ladders.
- 2.** Participating in RIBN is not cost neutral for community colleges. RIBN student enrollments replace ADN student enrollments at community colleges and therefore do not represent additional tuition revenues, except for the tuition revenue for Year 1 general education courses. At the same time, community colleges assume the major costs of hiring Student Success Advocates (SSAs) to recruit nursing

students into the RIBN program and manage their progress. When fully developed by 2020, the current RIBN plan represents an additional annual cost of \$610,500 for community colleges to hire the needed number of SSAs across the state, assuming that 100% of additional tuition revenue from year 1 RIBN students is applied to the costs of offering RIBN.

- 3.** Participating in RIBN is not cost neutral for universities, even though RIBN students enrolled during their fourth year are additional fourth year nursing students and therefore represent additional tuition revenues for the universities. This additional tuition revenue does not fully cover the expected additional costs for more nursing faculty and university support staff needed for the additional RIBN nursing students. After subtracting 100% of the estimated incremental tuition revenues from incremental university expenses, RIBN will still add an additional \$155,050 in annual costs for universities from 2020 forward.
- 4.** Hiring RIBN BSN graduates rather than ADN nurses will save hospitals and other practice providers an estimated \$3,000,000 a year by 2022 and these annual cost savings will grow to almost \$4,000,000 by 2030. These cost savings will come from reduced tuition reimbursement costs for new ADN RNs to obtain their bachelors degree and from lower RN turnover and reduced RN recruitment and “onboarding” replacement expenses. Annual tuition reimbursement cost savings alone are estimated to be \$1,575,000 a year by 2020. Practice providers are also expected to experience other cost savings and revenue enhancements that are not currently monetized and included in the economic model, including cost savings by shifting appropriate physician tasks to nurses and additional revenues from increased Pay for Performance from Medicare and Medicaid.

## Recommendation

The authors of this study recommend that the FFNE, community colleges, and universities engage in discussions with hospitals and other practice providers to explore the possibility of the latter funding the additional costs for community colleges and universities to offer RIBN.

When RIBN is fully developed by 2020, the annual tuition cost savings alone for hospitals and other practice providers is estimated to be \$1,575,000 a year, a dollar amount in excess of the estimated total annual cost of \$765,550 for community colleges and universities to offer the RIBN BSN as an alternative to the traditional two year ADN and four year BSN education tracks to enter the nursing profession. This assumes that the community colleges and universities will be able to allocate 100% of incremental RIBN student tuition to the direct costs of offering RIBN.

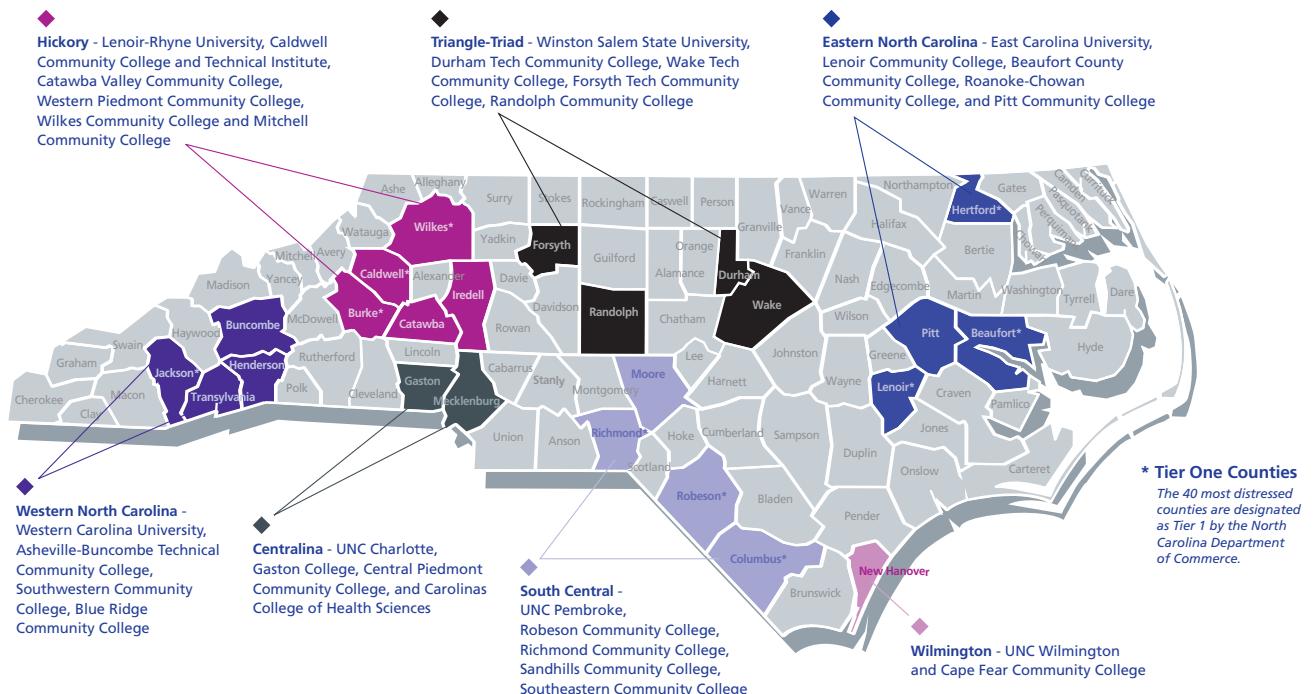
# Regionally Increasing Baccalaureate Nurses in North Carolina

RIBN – Regionally Increasing Baccalaureate Nurses in North Carolina – is a new education track to the BSN that is currently being implemented across the state (*FFNE RIBN Academic Progression in Nursing* proposal to Robert Wood Johnson Foundation, 2012). It was first piloted in 2010 as a partnership between A-B Technical Community College in Asheville and the School of Nursing at Western Carolina University. The RIBN BSN is designed to blend the curriculum and advantages of both the community college and the university. A RIBN BSN student is dual enrolled by both the community college and the university and spends the first three years at the community college, then enrolls in the university during the fourth year to complete their BSN degree. RIBN students complete the ADN program at the community college and become eligible for RN licensure after year three. They are also eligible to work as an RN during their fourth year while at the university completing the BSN degree.

The following map shows the current plans for RIBN partnerships of community colleges and universities that will cover much of the state. When fully developed in 2020, RIBN BSN partnerships will include 55 community colleges and 15 universities.

Today a number of RIBN BSN students are already "dual enrolled" at several community college sites across the state and the initial set of RIBN students will enter the universities as fourth year nursing students in 2013. When fully developed by 2020, RIBN will have a steady state enrollment of 938 students, with 763 RIBN BSN students enrolled during years one through three at community colleges and 175 RIBN BSN students enrolled annually at the universities as fourth year nursing students. A total of 767 RIBN BSN students will have graduated and entered the workforce by 2020 and 175 additional RIBN students will graduate and enter the workforce each year after 2020.

## **Current regional RIBN partnerships of community colleges and universities already cover much of the state**



## ADN vs BSN vs RIBN BSN? – The Nursing Student Stakeholder Perspective

Are there lifetime career financial differences between entering the nursing profession through an ADN educational pathway versus a traditional four year BSN versus a new community college and university RIBN BSN? It is generally recognized within the nursing profession that a BSN degree is required to qualify for a number of leadership and management positions, effectively engage in case management with representatives from other medical disciplines, and make progress along professional nursing career ladders at most employers. Having more nurses entering the profession with a BSN degree also increases the pool for future nursing faculty and advanced practice nurses. Setting these nursing career progression and career participation matters aside, is there any difference in the career earnings between these three educational pathways to the nursing profession?

Profiles for each educational pathway were developed using average tuition expenses for community colleges and universities, the terms and limitations for education loans under the FELS Program, and employment salary data from the Raleigh metropolitan area (US Department of Education, National Center for Education Statistics, IPEDS, Fall 2010 and Spring 2011, US Department of Health and Human Services; [www.payscale.com](http://www.payscale.com); FELS, College Foundation of North Carolina). The three profiles are summarized below.

	ADN Model	BSN Model	RIBN BSN Model
Description	2 year education at community college	4 year education at university	3 year education at community college; 4th year at university
Total tuition cost	\$3,795.53	\$19,825.50	\$10,649.66
Education loans forgiven under FELS?	Yes	Yes up to cap on FELS; total tuition exceeds loans forgiven under FELS	Yes
RN licensure after...	2 years	4 years	3 years
Work for practice provider after...	2 years as ADN	4 years as BSN	4 years as RIBN BSN (may work part-time after year 3)
Average starting salary	\$43,209	\$45,495	\$45,495
Experienced RN salary	\$60,890	\$66,316	\$66,316

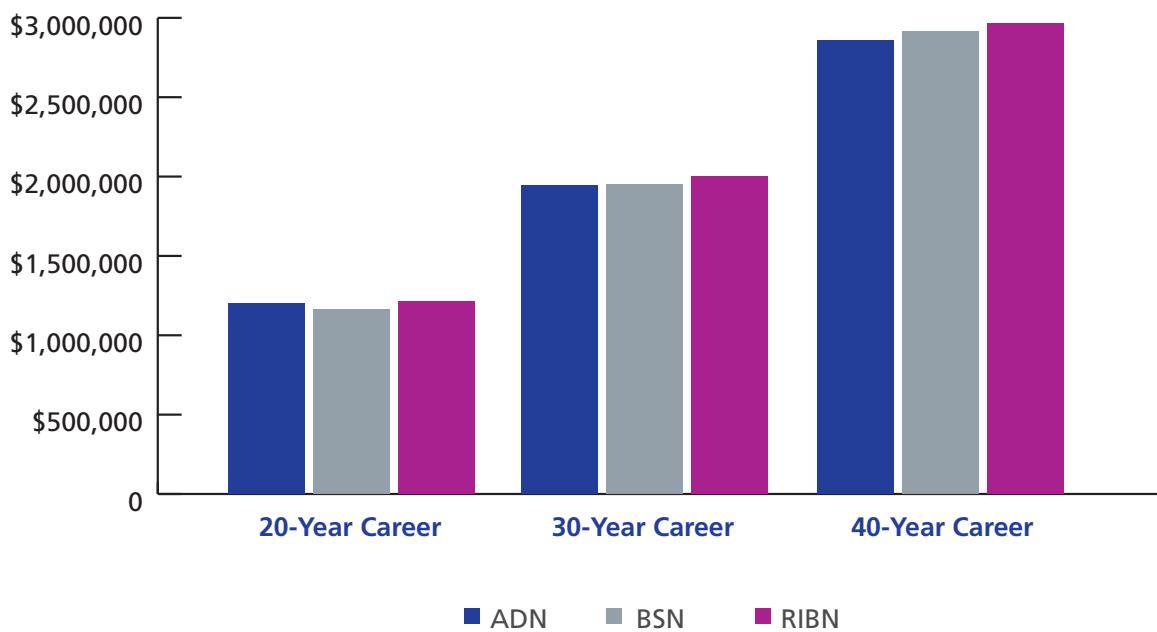
Lifetime career earnings were estimated for each model assuming that the individual pays for their tuition and living expenses through loans and savings and assuming the individual does not subsequently obtain a graduate degree or a significant career promotion. Net present value calculations were made assuming career longevity of 20, 30, and 40 years. The net present value for a 30 year career RN is \$1,944,715 for

an ADN, \$1,951,295 for a traditional four year BSN, and \$2,001,639 for a RIBN BSN graduate. Financially the RIBN BSN program is worth \$56,924 more than an ADN program over a 30 year career lifetime and \$50,344 more than a traditional four year BSN program over the same career lifetime.

The following charts summarize the results of this net present value analysis of earnings over a 20, 30, and 40 year career, without regard to further career and educational opportunities. The RIBN BSN is financially in the best interest of a nursing professional over any of these lengths for a lifetime career in nursing.

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#### Net present value analysis of earnings over 20-, 30- and 40-year careers



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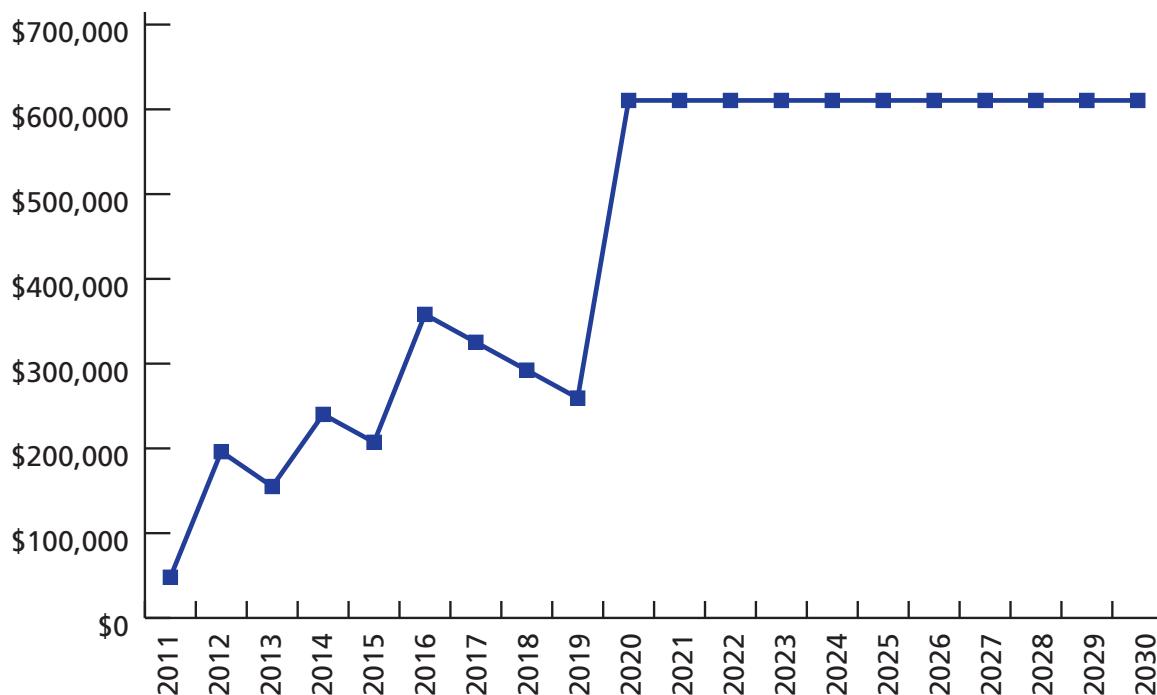
## The Community College and University Stakeholder Perspectives

For community colleges, RIBN student enrollments replace ADN student enrollments and therefore RIBN students do not represent any additional, incremental tuition revenues. According to the plan for RIBN (FFNE RIBN Academic Progression in Nursing proposal to Robert Wood Johnson Foundation, 2012), community colleges will lead in hiring Student Success Advocates (SSAs) to recruit students into the RIBN program and manage their progress, particularly within the first three years while they are enrolled at community colleges. The SSA annual cost is expected to be \$48,000 per SSA and each SSA will work part-time at two or more community colleges. When RIBN is fully developed in 2020, it is planned to include 55 participating community colleges with 23 shared SSA support staff. This will represent an additional annual cost of \$1,104,000 for the community colleges, which will be reduced by \$493,500 in incremental tuition revenue from year 1 RIBN students enrolled at community colleges taking prerequisites and general

education courses. The growth in this annual net cost to community colleges is tracked over the coming years by the following graph.

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#### Annual cost to the Community Colleges reduced by incremental tuition revenue



The economics are different for universities participating in RIBN.

On the revenue side, tuition revenues for universities will increase as RIBN students enroll as additional full time students at universities in year four of the RIBN track, even though much of the curriculum is online. Using the UNC System Student Credit Hour Budget Model (Office of the President, University of North Carolina General Administration), the 175 RIBN students enrolled annually at universities from 2020 on will result in an additional \$999,950 in tuition revenue per academic year. This assumes average additional tuition revenue of \$5,714 for every fourth year RIBN student enrolled at universities. Each university will need to determine how much of the incremental tuition revenue from RIBN student enrollments will be allocated to the incremental direct costs of offering RIBN versus allocated to other university budget line items. This analysis assumes that 100% of the incremental tuition revenue will be allocated to offset the additional direct costs of offering RIBN.

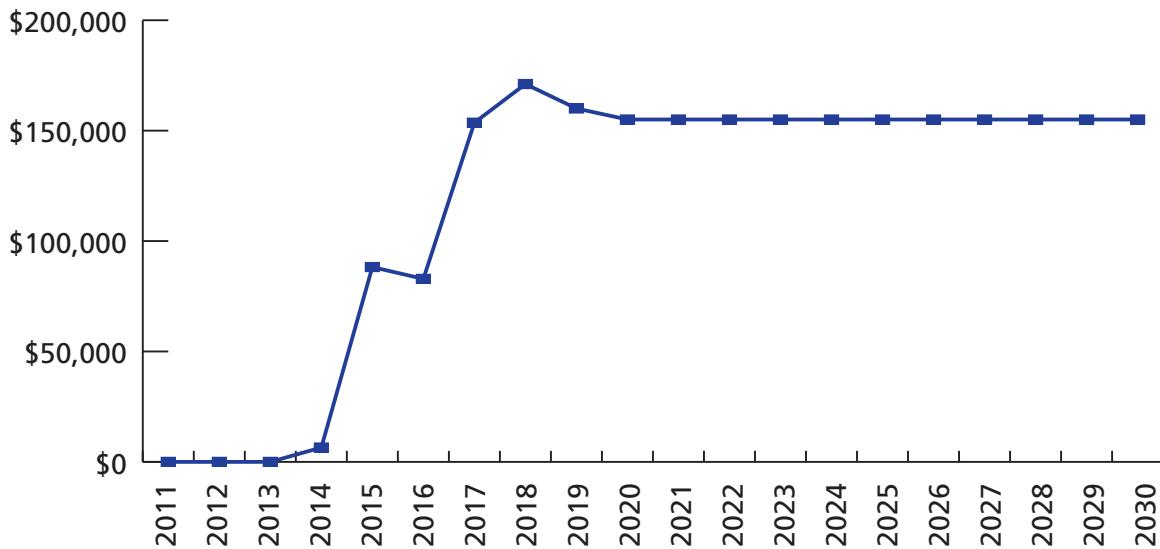
On the expense side, university schools of nursing (ECU, WSSU, and WCU) have indicated they expect to need to hire 1.5 additional faculty members for every 20 RIBN students, plus an additional advisor or staff support person for every 40 RIBN students. The expected annual cost for a school of nursing faculty member is \$75,000 and the annual cost for an advisor or staff support person is \$45,000.

For universities, the additional tuition revenues could considerably offset the additional expenses for faculty members and staff, yet the unfunded direct costs increase over the years as RIBN is developed even when 100% of the new tuition revenue is allocated

to the costs of offering RIBN. By 2020 the net annual cost for RIBN to universities after adjusting for 100% of incremental tuition revenues, is expected to be about \$155,050 per year. The following graph summarizes the growth in net annual cost to universities as RIBN expands by 2020.

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#### Annual cost for Universities to offer RIBN less 100% of incremental tuition revenues



In summary, RIBN is not cost neutral to either community colleges or to universities. Community colleges incur the majority of the net incremental cost for RIBN, estimated to stabilize by 2020 at \$610,500 a year for the 23 Student Success Advocates. The net cost for RIBN after 100% tuition revenue credits for universities is estimated to stabilize at \$155,050 a year for additional faculty and support staff. This results in a total estimated overall annual cost of \$765,550 a year from 2020 forward for community colleges and universities to offer the RIBN program. This analysis assumes all the incremental tuition revenue is allocated to offset the additional direct costs for the community colleges and the universities to offer RIBN.

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## The Practice Provider Stakeholder Perspective

For hospitals and other practice providers, RIBN BSN graduates add to the pool of baccalaureate degree nurses entering the workforce instead of ADN RNs. Increasing the number of staff RNs with baccalaureates and increasing the percentage of nurses with a bachelor degree contributes toward a hospital or other practice provider achieving Magnet Status and also generally supports increased professionalism for all employees. Hiring RIBN graduates instead of ADN RNs, however, is expected to result in four major cost savings or revenue enhancements (*Investing in Nurse Education: Is There a Business Case for Health Care Employers?*, Patricia Pittman, Katie Horton, Alex Keeton, and Carolina Herrera, The George Washington University, RWJF Grant 68816, April 11, 2012):

1. Cost savings from reduced tuition reimbursement expenses for new ADN RNs to obtain bachelors degrees
2. Cost savings from reduced RN turnover and reduced RN recruitment and onboarding replacement expenses

3. Cost savings by shifting appropriate physician tasks to better trained nurses
4. Additional revenue from increased Pay for Performance from Medicare and Medicaid

Only the first two major cost savings are estimated and monetized in this analysis.

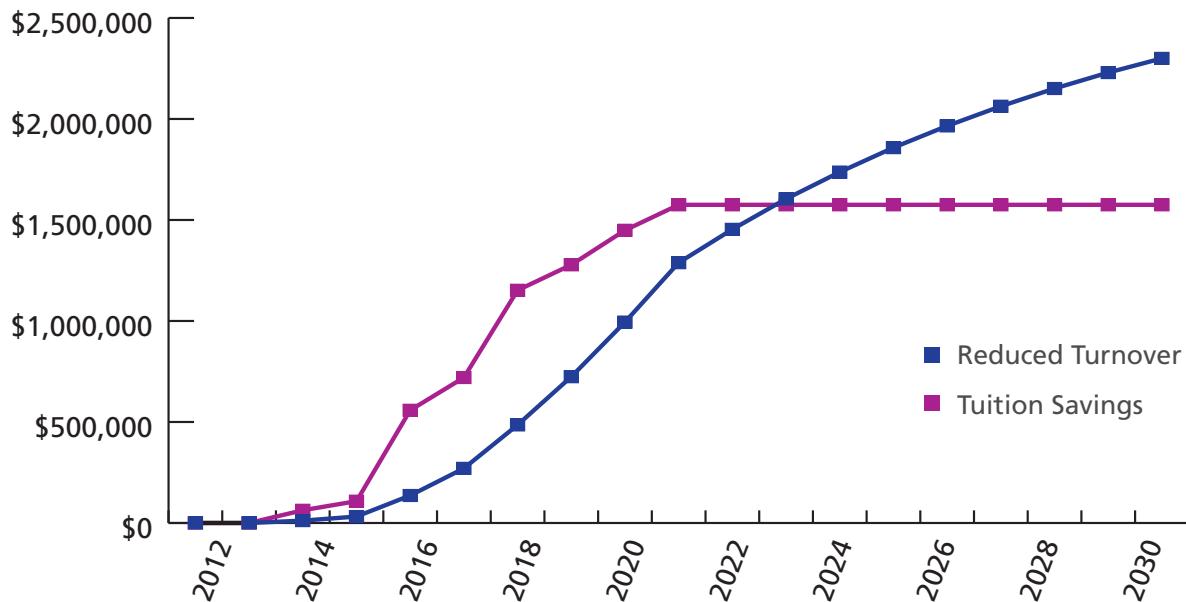
Hospitals and other practice provider cost savings from reduced tuition reimbursement expenses for new ADN RNs to obtain their bachelors degree while working full time are estimated assuming a total historic average of \$9,000 in tuition reimbursement and other financial support for these employees (Vidant Health, Randolph Hospital). Hiring RIBN BSN employees instead of ADN RNs enables practice providers to avoid this tuition reimbursement expense. With 175 RIBN BSN employees entering the workforce each year from 2020 onward, this represents an annual cost savings of approximately \$1,575,000.

The second major source of cost savings comes from reduced RN turnover and onboarding replacement expenses that should result from employing RIBN BSN RNs rather than ADN RNs. Assuming that a current annual nurse turnover rate of 14% would be reduced to a target nurse turnover rate of 10% and that the average cost of replacing a nurse is \$42,000 (*North Carolina Hospital Association Workforce Report*, NCHA, 2010), the entry into the workforce of a cumulative total of 767 RIBN RNs by 2021 should result in an annual cost savings to employers that year of \$1,288,560. This source of cost savings will continue to increase as more RIBN RNs enter the workforce at a rate of 175 a year from 2020 onward.

The following graph tracks these two major sources of cost savings for hospitals and other practice providers as RIBN is developed and RIBN BSN graduates enter the workforce.

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**Annual practice provider savings in tuition reimbursement expense and turnover expense from hiring RIBN RNs**



Summing these two major sources of cost savings from employing RIBN RNs instead of ADN RNs totals \$2,501,520 in annual cost savings by 2020 and continues to grow into future years. RIBN will result in significant cost savings and other benefits for RIBN BSN employers.

# Summary

***So what is the economic impact of RIBN on its key stakeholders – nursing students, community colleges, universities, and hospitals and other practice provider employers?***

For nursing students considering entering the profession through either a two year ADN, a four year traditional BSN, or a RIBN BSN, a bachelors degree is increasingly required for engagement and progression in the profession, and the career financial benefits of a RIBN BSN are greater than either of the other two pathways. This is particularly the case with respect to the career financial advantage of entering the nursing profession with a RIBN BSN as opposed to a two year ADN.

For community colleges and universities, offering RIBN is not cost neutral. In fact, when RIBN enrollments are fully developed and stabilized in 2020 the additional overall annual net cost after applying 100% of incremental RIBN student tuition revenue for community colleges will be about \$610,500 and for universities about \$155,050 each year forward resulting in a total net cost of \$765,550 per year summed across the 55 community colleges and 15 universities participating in RIBN from 2020 forward.

The additional cost to offer RIBN for community colleges comes primarily from the expense of hiring Student Success Advocates across the state to recruit students into RIBN and manage their progress. RIBN students replace existing ADN students for community colleges and thus offer no opportunity for additional tuition revenues.

RIBN students at the universities, however, are enrolled as additional fourth year nursing students. They add to the student enrollment figures for university schools of nursing. University schools of nursing will need to hire additional faculty and additional support staff to support these additional students. At the same time, tuition revenues for universities will also increase as these 4th year RIBN students are additional RN student enrollees at the university.

The graph below tracks the total overall annual cost for community colleges and universities to offer RIBN by year as RIBN enrollments are developed. From 2020 forward when RIBN is fully developed, this total overall annual incremental cost to offer RIBN is estimated to be \$765,550 a year for the participating community colleges and universities.

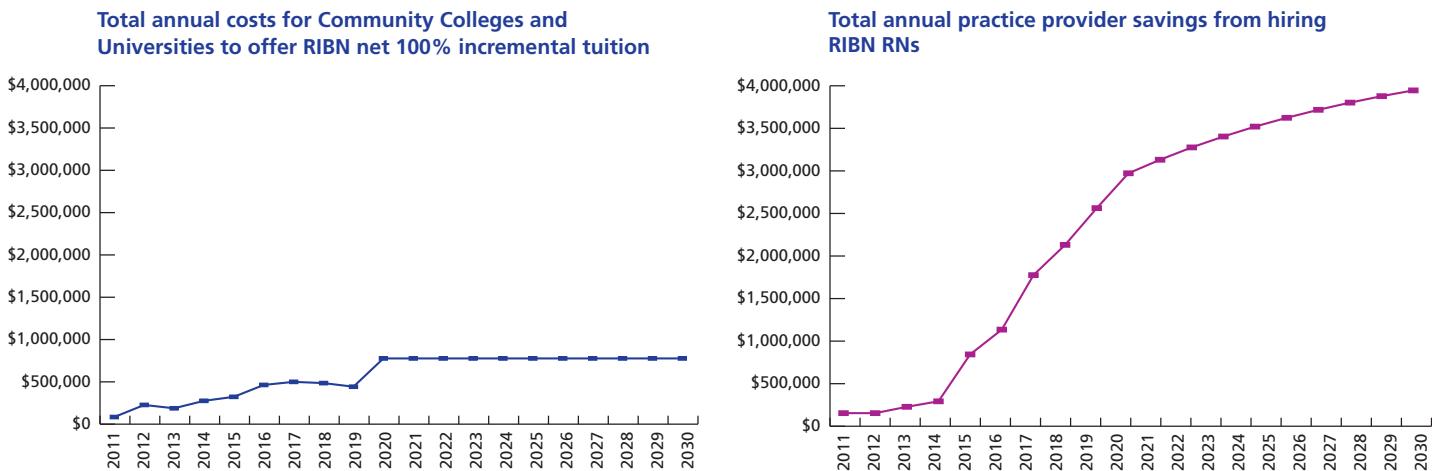
Hospital and other practice provider cost savings from hiring RIBN BSN graduates as opposed to hiring ADN RNs are significant and will be approximately \$3,000,000 annually by 2020 and \$4,000,000 annually by 2030. The cost savings captured in this economic analysis come from only two of the four major areas of cost savings and revenue enhancements available to practice providers.

According to the RIBN plan, by the year 2020 about 767 RIBN BSNs will have entered the workforce and an additional 175 RIBN students will enter the workforce annually. Employing these RIBN graduates instead of ADN RNs will enable practice providers to realize annual cost savings of about \$1,575,000 a year from reduced tuition reimbursement expenses alone for new ADN RNs to obtain their bachelors degree while working full time.

Annual cost savings from reduced RN turnover and replacement expenses are estimated to be \$1,288,560 a year by 2020 and will continue to increase annually.

The graph below charts the annual total practice provider cost savings from reduced tuition reimbursement expenses and reduced employee turnover expenses as RIBN expands and is fully developed.

#### **Summary of total annual costs for community colleges and universities to offer RIBN (net 100% incremental tuition) and annual savings for practice providers to hire RIBN RNs**



In summary, the cost savings for hospitals and other practice providers that benefit from hiring RIBN graduates exceed the overall additional costs and expenses for the community colleges and universities to offer RIBN as RIBN graduates enter the workforce. By the year 2020, the annual savings for practice providers is almost double the overall annual expense for community colleges and universities to offer RIBN.

## Recommendation

Hospitals and other practice providers should financially support the development of RIBN by community colleges and universities as doing so is strongly in their own economic self interest, in addition to the many other reasons to support more favorable patient outcomes from better education and higher professionalism for nurses.

When RIBN is fully developed by 2020, the annual tuition reimbursement cost savings alone for hospitals and other practice providers is estimated to be \$1,575,000 a year, a dollar amount far in excess of the estimated total annual cost of \$765,550 for community colleges and universities to offer the RIBN BSN as an alternative to the traditional two year ADN and four year BSN education tracks to enter the nursing profession.

RIBN also increases the pool for future faculty to assure the continued preparation of the nursing workforce as well as increases the number of advanced practice nurses providing access to quality health care for all North Carolinians.



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