

**The North Carolina Digital Learning Plan:
Proposals for a State-Level Approach to Longer-Term Funding**

The North Carolina Digital Learning Plan Funding Working Group

June 30, 2016

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Executive Summary

The Friday Institute for Educational Innovation’s Digital Learning Plan for North Carolina—presented to the North Carolina General Assembly in Fall 2015—charts a course for the state’s conversion to statewide digital learning.¹

A fundamental goal for the first full year of state efforts to convert to statewide digital learning (2016) is identification of sustainable funding sources for state- and district-level work. Nearly every district-level digital learning initiative in the state to date has been funded by non-recurring (typically grant-supported) sources; the estimated annual gap between current recurring funding from all sources and funding for a fully-implemented, statewide plan is approximately \$287 million.² In order to complete and sustain key elements of the transition plan, the state will need to identify reliable longer-term sources of financial support.

To that end, in Spring 2016, the Friday Institute convened a group of state- and district-level stakeholders—the Digital Learning Funding Working Group—to develop recommendations for sustaining funding for full implementation of the Digital Learning Plan. This memorandum is the main product of that group’s work. It is divided into four Sections:

- I. The Digital Learning Funding Working Group
- II. Sustainable Funding Proposals with Statewide Impact
- III. Sustainable Funding Proposals with Localized Impact
- IV. Strategies for Moving Toward Long-Term Funding Sustainability

Summary of Funding Proposals

Proposals with Statewide Impact	Proposals with Localized Impact
<i>Expand Current State Funding</i>	
Restore the Digital Learning Fund or Establish Equivalent New Fund	Establish an “Innovation Fund” and/or Issue Competitive Planning Grants
Provide Support for a State-Level Process for Optimizing Federal Funding Opportunities	
<i>Develop Public/Private Partnerships</i>	
Leverage Short-Term Support from the Private and Philanthropic Communities	
<i>Broaden Flexibility at the Local Level</i>	
Create a State Revolving Loan Fund	Expand Current Fund Transfer Options and Current Allowable Fund Uses
	Establish District-Level Digital Initiatives Accounts Funded by Transfers from Unspent Reverting Funds
	Create a Limited-Life Fund to Offset Funding Gaps for Low-Wealth and Small Districts
	Extend Collaborative Procurement, Shared Services, and Managed Services Efforts

¹ The plan and supplemental documentation can be found at <http://ncdlplan.fi.ncsu.edu/>

² Some of this gap will be closed as funding for programs made redundant by the conversion to digital learning becomes available.

I. The Digital Learning Funding Working Group

Moving Beyond the Current State of Funding for the Digital Learning Conversion

Per the North Carolina Digital Learning Plan,³ a fully-realized conversion to digital learning will include support not only for devices and content, but also for the infrastructure, human capital, and professional learning necessary for those devices and content to meet their potential with students.

The state continues to provide support for infrastructure, and recent legislation has expanded both the definition and the size of the fund dedicated to purchasing content (originally the Textbook Fund, now called the Textbooks and Digital Resources Fund), though expansion has not yet reached a level that would allow districts to fully implement digital learning. Funding for other areas of digital learning (personnel, training, and devices) have much less substantial or sustainable funding, and nearly all components of digital learning will require replacement or renewal on a regular basis. As part of its development of the Digital Learning Plan, the Friday Institute for Educational Innovation estimated the annual gap between current funding and funding of a fully-implemented, statewide plan to be approximately \$287 million (\$131 million for non-personnel expenses, and an additional \$156 million for personnel expenses).⁴ While closing this gap should be a longer-term target for the state's digital learning transformation work, reaching this funding level may require multiple years; thoughtfully rolling out and bringing to scale all of the components reflected in the budget will take time.

To meet the statutory goals of converting to digital learning and providing a sound, basic education for every child, the state will need to increase the recurring funding available to support the transition to digital learning. The funds the state already provides through the School Connectivity Initiative and Digital Resources Fund are an important first step. In addition, other stakeholders—including local governments, private industry, and the philanthropic community—should continue to look for strategic, targeted ways to maximize the impact of their support for this important transition (e.g., by providing start-up funding for early transition efforts, grant funding for experiments and innovations and pilots, etc.).

To help begin this critical planning process for identifying sustained and sustainable funding sources for the state's transition to digital learning, the Friday Institute convened a group of representatives from multiple stakeholder groups—the Digital Learning Funding Working Group—to generate recommendations for meeting this goal.

Working Group Charge

The Digital Learning Funding Working Group (Appendix) included representation from state entities (the Department of State Treasurer, and the Department of Public Instruction), local

³ The plan and supplemental documentation can be found at <http://ncdlplan.fi.ncsu.edu/>

⁴ Some of this gap will be closed as funding for programs made redundant by the conversion to digital learning becomes available.

government (North Carolina Association of County Commissioners), state and/or regional non-governmental organizations (the Golden Leaf Foundation, the North Carolina Business Committee for Education, and BEST-NC), and Digital Learning Plan staff.

The purpose of the Working Group was to identify practical and practicable solutions for moving the state closer to a longer-term, sustainable strategy for funding digital learning statewide.

The Working Group's recommendations will be shared with the State Board of Education in summer 2016 and then, if approved by the Board, reported to the Joint Legislative Education Oversight Committee, pending invitation to do so.

II. Sustainable Funding Proposals with Statewide Impact

The most immediate need for sustainable funding of digital learning in North Carolina is to establish reliable, recurring, and stable funding for every traditional school district and charter school that will support their implementation of core elements of the Plan. The recommendations below⁵ can begin to address this need by expanding extant digital learning funding streams so that every school district can begin to make the transition to all-digital learning, providing greater flexibility at the local level, both in terms of the use of existing funds and the generation of additional funds, and providing ways for multiple stakeholders to financially support the work.

Expand Current State Funding

Restore the Digital Learning Fund or Establish Equivalent New Fund

The Digital Learning Fund (PRC 030), which in 2013-14 was supported by funds allocated from lottery proceeds, provided school districts with resources dedicated to digital learning content and professional development. Funds were allocated in part based on average daily membership (ADM) numbers, and in part via application. The fund was discontinued for the 2014-15 school year.

The North Carolina Digital Learning Plan recommends creation of a fund to support model digital learning innovations in selected school districts, which would restore one of the functions of PRC 030, and some State School Board members have expressed interest in reinstating the lottery-funded grants in the original PRC 030. Given the high start-up costs for many school districts as they convert to digital learning, it may be advisable to restore the ADM-based portion of the fund as well; doing so would guarantee at least some base funding for digital learning conversion in districts that are not yet prepared to apply for competitive digital learning grants.

Provide Support for a State-Level Process for Optimizing Federal Funding Opportunities

Much of North Carolina's progress to date toward advancing digital learning statewide has been supported by extensive use of federal funding opportunities. For example, federal E-Rate match funding is leveraged annually to triple the amount of funding available for infrastructure costs, and Race to the Top funds supported development of the state's Education Cloud, classroom management tools, and digital instructional resources. The recent reauthorization of the Elementary and Secondary Education Act—the Every Student Succeeds Act—includes even more federal support for digital learning.⁶ Accessing federal funds can be a time-consuming

⁵ All recommendations in Section II and Section III were vetted during meetings of the Digital Learning Funding Working Group held in spring 2016. The Funding Working group considered and ultimately rejected several other funding scenarios and options during deliberations.

⁶ http://all4ed.org/wp-content/uploads/2016/03/FINAL-ESSA_FactSheet_DigitalLearning.pdf

process that requires ongoing planning and preparation, and securing these grants is never guaranteed, but by providing formal fiscal support for monitoring opportunities and submitting applications, the state can more reliably access a sustained stream of federal funds to offset significant portions of the total cost of digital learning.

Develop Public/Private Partnerships

Leverage Short-Term Support from the Private and Philanthropic Communities

A consistently- and clearly-stated focus on one of the key outcomes of a sustained, successful transition to digital learning—development of students into creative and flexible learners who become part of a highly-qualified workforce that raises North Carolina’s status as a globally competitive state—can help to leverage investment from non-public stakeholders. Securing private investments in digital learning will help promote the idea that digital learning is a state benefit and a broad responsibility, not just an extension of the current public education structure. These investments likely will need to be short-term and local or regional in nature, but if targeted well they can become exemplars and catalysts for generating public interest in sustaining multiple components of the digital learning landscape. For example, the state could consider:

- **Social Impact Bonds:** Government interest in social impact bonds (also known as “social innovation financing” or “pay for success” models) is growing. These bonds offer an innovative, risk-free approach for harnessing private capital to achieve measurable gains. Private investors (e.g., corporations, philanthropic foundations, and/or individuals) provide initial capital to non-profit organizations or service providers, who then implement a program or initiative. An external, neutral evaluator measures outcomes and tracks program results. If the project achieves the desired outcomes or stated objectives, the government repays the initial capital to investors, along with a premium. The government then has the option to continue or even expand funding for the initiative or program.

Several states (including Massachusetts, New York, South Carolina, and Utah) and localities have used social impact bonds to develop successful interventions. For example, in Alexandria, Virginia, a social impact bond was used to coordinate private equity investment in a preschool scholarship program, with a goal of reducing the district’s special education placements for participating students once they entered grade school. If successful, the savings from reduced placements would cover the cost of the scholarship and the investment premium.⁷

⁷ Warner, M.E. (2013). Private finance for public goods: Social impact bonds. *Journal of Economic Policy Reform*, 16(4), 303-319.

Broaden Flexibility at the Local Level*Create a State Revolving Loan Fund*

In order to finance one-time investments or start-up costs at the district and school levels, the state should provide a revolving loan fund from which approved applicants (districts/schools) borrow at zero or low interest. Applicants would be able to pay the state back over several years, spreading their start-up costs across multiple budget cycles. Doing so would enable financing of digital learning innovations not covered by the basic state plan (e.g., construction or renovation of facilities, further improvement of wireless infrastructure, provision of additional professional development opportunities, purchasing additional technology, etc.). Illinois established a similar program in 1999; in 2014, twenty-two districts received loans from the program ranging from \$30,000 to \$400,000.

III. Sustainable Funding Proposals with Localized Impact

Meeting immediate needs through the funding options outlined in the previous section will help all districts move forward in their conversion to all-digital learning, regardless of their starting points. After initial start-up, however, the focus will need to shift to targeted funding that can help to equalize the prevalence and quality of digital learning across all districts.

Categories in this section mirror the categories in the preceding section to clarify locally-focused recommendations that could reinforce recommendations for statewide strategies.

Expand Current State Funding

Establish an “Innovation Fund” and/or Issue Competitive Planning Grants

An innovation fund can both incentivize innovation at the school and district levels and provide flexibility to schools and districts that are ready to push digital learning boundaries. This fund should support digital learning innovations that can then serve as models for scaling up regionally or statewide. Several states (including Colorado, Hawaii, Indiana, Kentucky, Minnesota, New York, Ohio, and West Virginia) support similar innovation funds. In Ohio, for example, an innovation fund supported a digital content project managed by a partnership between local districts, a university, and an educational service center that was designed to increase student achievement while simultaneously reducing textbook expenditures.

As noted above, restoration of PRC 030 may be one way to re-introduce this type of fund to districts.

Broaden Flexibility at the Local Level

Expand Current Fund Transfer Options and Current Allowable Fund Uses

The state should ease funding for many aspects of the transition to digital learning by continuing to expand the number of options districts have for using current funding.⁸ In particular, the state should:

- Allow additional fund transfer options at both the state and district levels: As a result of legislated changes in 2013-14 in districts’ fund transfer options, there is currently greater district-level fund transferability than there has been, but there could be more. In particular, the Classroom Supplies and Materials Fund could be converted from a reverting fund to a non-reverting fund with retention of the fund’s current transfer flexibility (the University of North Carolina’s General Administration currently has this

⁸ A summary of current funding flexibility can be found here: <http://www.ncpublicschools.org/docs/fbs/allotments/general/flexibilitychart.pdf>; in addition, districts may benefit from more clarification about allowable uses of funds (see Section IV, below).

flexibility). In addition, the Textbook and Digital Resources Fund, which already is non-reverting and allows transfers in and out, could become even more flexible by allowing transfers into the fund that exceed that year's allotment (which currently sets the limit for transfers into the fund). Finally, at the state level, the Public School Capital Building fund might be made eligible for transfer, if certain technology investments (e.g., devices) are reclassified as short-term capital expenses. In addition, districts may benefit from more information about what funding transfers already are available to them (e.g., funding provided to districts based on student:teacher ratio does not have to go exclusively toward teacher salaries).

- Allow districts to use federal and state fund sources more flexibly: Several districts, including smaller districts with fewer capital needs, have requested more flexibility with respect to how they are allowed to use their State Lottery Fund disbursements. Until the elimination of the Digital Learning Fund (PRC 030) in 2014-15, up to \$12 million in Lottery money went to digital learning. Going forward, lottery fund use could be expanded to allow for digital learning materials purchases, including technology, devices, and content. Similar flexibility could be granted for the use of state funds. For example, one district recently sought flexibility for the use of several state and federal funds (Title I, Title III, School Technology Fund, At-Risk funds) that currently can be used for devices and technology services, but not for local connectivity initiatives.

Establish District-Level Digital Initiatives Accounts Funded by Transfers from Unspent Reverting Funds

Every year, districts use as much of their reverting funds as possible, but in many cases, districts return at least a small fraction of those funds when the fiscal year ends. Instead of requiring reversion of all of these funds, the state could establish district-level accounts into which districts could transfer unspent funds, for use exclusively on digital learning initiatives. Such a fund would reward individual district fiscal management by incentivizing more efficient local-level use of reverting funds (because of the ability to transfer a portion of the savings into the digital learning fund). It also would keep decision-making about use of those funds at the local level. The state currently relies on those reversions as part of its preparations for the following fiscal year, so the state may need to set a limit on the proportion of reverting funds that could be retained.

The Department of Public Instruction's Financial and Business Services office estimates that districts revert about 1% of all of those funds annually—approximately \$80 to \$90 million. Converting even a portion of those unspent reverting funds annually into dedicated digital learning funds for subsequent years will address many of the new costs associated with the conversion to and maintenance of digital learning initiatives statewide.

Create a Limited-Life Fund to Offset Funding Gaps for Low-Wealth and Small Districts

Initial capital costs for the transition to digital learning—such as for network infrastructure and/or equipment—are likely to fall hardest on districts with the fewest resources. The state should address this inequity via a means-tested short-term fund, special formula, or special provision to provide additional funding to low-wealth districts specifically for capital components of the digital learning transition. For example, the state could:

- Expand the Low-Wealth and/or Small-School Supplement funds: Both funds already can be used for a wide array of digital learning expenses,⁹ but because the focus of the expansion funds would be on differences in the ability to cover capital expenses, a special provision could designate their use only for capital costs related to digital learning.

Since the emphasis for the limited-life funds would be on capital needs, one potential source for some of these funds could be any annual state Education Lottery revenues that exceed the state's lottery revenue forecast.¹⁰

Extend Collaborative Procurement, Shared Services, and Managed Services Efforts

The state can support expansion of several multi-district purchasing strategies that increase funding efficiency without directly increasing funding. These efficiencies can be realized through support for three approaches to state- or multi-district-level bulk purchasing of materials and personnel services.

- Collaborative Procurement: Collaborative procurement allows districts to benefit from economies of scale by negotiating with a vendor at the state level on the behalf of multiple districts for a shared price on bulk purchase of an item, rather than negotiating on a district-by-district basis. The state already has begun to employ this strategy through support of collaborative procurement of devices—with an estimated reduction in per-device cost of approximately 10%—and the state's learning management system contract—with estimated per-account savings of 53% or more over previous district-level learning management contracts. Expansion of the collaborative purchasing strategy for other digital learning expenses could help the state to realize additional savings.
- Shared Services: The state currently covers the cost of access and Internet connectivity at the classroom level (approximately \$32 million per year, with the assistance of leveraged E-Rate dollars). This funding does not, however, cover maintenance and monitoring, and most schools (88%) do not have access to and/or cannot on their own afford full-time technicians. To solve this issue, some districts share personnel resources. For example, in the southwest, six districts share a single network engineer who monitors, engineers, and

⁹ <http://www.ncpublicschools.org/docs/fbs/allotments/general/2013-14policymanual.pdf>

¹⁰ Because of the sometime limited scope and irregular availability of excess lottery revenues, rather than distributing these excess revenues across all districts eligible for low-wealth and/or small-school supplemental funding (which in some years may result in insignificant distributions, if distributed equitably across all eligible districts), the state may want to consider transferring excess revenues only to the highest-need eligible districts.

troubleshoots the network inside and between schools. The engineer administratively reports to one district, with the other districts contributing funds to support the position. By pooling several \$30,000-per-year technician commitments, several small districts (who only need a portion of the technician's time) are able to cover a single engineer's \$120,000-a-year salary, benefits, and travel costs and get the services they need. The state may benefit from identifying ways to make it easier for consortia of districts to make additional shared hires.

- Managed Services: For many districts, managing technology-related services internally is costly. To reduce these costs, at least one district is contracting for a managed service, an option supported by E-Rate. A participating district or consortium of districts subscribes to a service provider that manages and monitors access points on a regular basis and also provides equipment and services. Because managed service providers typically receive better deals on infrastructure equipment, participating districts also can realize additional savings on infrastructure purchases as well.

IV. Strategies for Supporting the Move toward Long-Term Funding Sustainability

A successful long-term funding plan will require more than funding strategies alone; it also will require thoughtful and careful planning for the establishment of support structures that can help ensure that all districts are able to make best use of the funding available to them. This section outlines, in rough order of implementation, recommendations for major support structures needed to enhance the success of the long-term funding plan.

Develop District Capacity

Enhancing the capacity of school districts to make sound and efficient digital learning policy choices is an important step if the state's transition to digital learning is to be successful. For example, the state should provide:

- *Guidance for Digital Learning Funding Planning*—Use ongoing professional development and the Friday Institute's digital learning cost projection tools¹¹ to help districts make sound decisions about: a) how they use their current digital learning funds; and b) how they can project and plan for longer-term funding support.
- *Guidance for Staggered Digital Learning Roll-Out*—All districts are not created equal, and each will need a customized implementation timeline and accompanying financial support structure. Build on the Friday Institute's Digital Learning Rubric¹² by providing support for districts as they plan their multi-stage, multi-component conversion to digital learning.

Develop Cross-District Support Structures

The Friday Institute's Digital Learning Plan recommended establishment of formalized, cross-district Digital Learning Networks, to capitalize on shared resources, leverage economies of scale, and enable districts to design and implement the complex transition to digital learning.¹³ In addition to supporting collaboration, the Networks also can improve fiscal management of the transition by providing technical assistance, sharing best practices and lessons learned and resources, and enabling the strategic use of shared services (see above).

Each area of the state has its own strengths, resources, and needs; therefore, the Digital Learning Plan recommended that the support structure for each cross-district network be established through a process that allows partnerships from each network to propose how they would address the supports needed in their network. For example, a partnership of a Regional Education Service Agency, community college, and several districts may comprise one cross-district support

¹¹ Developed as part of the Digital Learning Plan

¹² Developed as part of the Digital Learning Plan; <http://ncdlplan.fi.ncsu.edu/rubric/>

¹³ <http://ncdlplan.fi.ncsu.edu/>

network, while another might be comprised of a partnership of a university, a non-profit organization, a district, and a charter school.

Provide Universal Clarity on Funding Uses

In particular, districts will need clarity on the degree of flexibility they have for allocating their current state and federal funding streams. For example, many districts remain unclear about their ability to use Textbook Fund (now the Digital Resources Fund) resources for device purchase.

Implement a Digital Learning Progress Dashboard and Data-informed Continuous Improvement Processes

The Digital Learning Plan recommended that the state track outcomes related to the conversion to digital learning and share these outcomes with all stakeholders on a regular basis. The Plan recommended a comprehensive continuous improvement approach that leverages pertinent data sources at the state, district, and school levels to provide a systemic understanding of progress in local digital learning activities, as well as in the overall digital learning conversion effort. This recommendation has particular salience for the success of local and state strategies for funding the transition to digital learning. The primary progress tracker—a North Carolina Digital Learning Dashboard, already under development—will house data that should be very useful for financial planning. As described in the Digital Learning Plan (p. 94), the dashboard will provide easy access to performance indicators and other information at the school, district, and state levels across a range of factors including leadership, professional learning, content and instruction, funding, and data and assessment.

Appendix. Digital Learning Plan Funding Working Group Membership

Working Group Membership

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