Consortium for Educational Research and Evaluation– North Carolina

Regional Leadership Academies Cost-Effectiveness Framework

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Consortium for Educational Research and Evaluation– North Carolina



http://cerenc.org/wp-content/uploads/2011/10/RLA_cost_effectiveness_framework _3-1-12.pdf

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REGIONAL LEADERSHIP ACADEMIES COST-EFFECTIVENESS FRAMEWORK

Executive Summary

Overview

The North Carolina Race to the Top plan for ensuring equitable distribution of high-quality teachers and leaders includes development of Regional Leadership Academies (RLAs) that will "increasing the number of principals qualified to lead transformational change in low-performing schools in both rural and urban areas." The RLAs are to be "approved for certifying principals" and will "provide a new model for the preparation, early career support, and continuous professional development of school leaders." To prepare to address questions about post-RttT sustainability of the RLAs, evaluators created a framework for completing a cost-effectiveness analysis (CEA) of these programs that will address: (a) whether the targeted outcomes of the RLAs outweigh the added costs associated with them, relative to traditional school administration preparation programs that do not specifically or exclusively prepare leaders for low-performing school settings; and (b) whether the RLAs are cost-effective relative to alternative programs that serve the same or similar purposes.

Selection of Comparison Programs

The Evaluation Team selected three large in-state Master's of School Administration programs (Appalachian State University, the University of North Carolina at Charlotte, and East Carolina University's program), along with the North Carolina Principal Fellows Program, for the first comparison, and two independent programs (the New Leaders for New Schools program and the Aspiring Principals Program [APP] at the New York City Leadership Academy [NYCLA]) for the second comparison.

Measures of Cost-Effectiveness

Proposed measures of cost-effectiveness include both short- and long-term measures. Short-term measures will track (a) whether successful participants or program completers became certified or licensed to serve as principals and (b) growth over time in key areas of leadership knowledge and expertise. Long-term measures will track (c) whether participants become principals, (d) whether those who become principals stay in high-need schools, (e) school performance gains that parallel program matriculant school leadership, and (f) teacher retention levels at schools led by program completers.

A Plan for the Cost-Effectiveness Analysis

- *Step 1*: Collect expenditure data from each of the RLAs.
- *Step 2*: Separate ongoing costs from start-up costs and non-essential costs.
- *Step 3*: Conduct twice-yearly surveys with RLA matriculants as they move through the programs and into NC schools.

- *Step 4*: Contact comparison programs and solicit their cooperation around cost data collection and program participant outcomes.
- *Step 5*: Report in 2014 on short-term CEA findings and prepare a proposal based on these findings for continuing evaluation activities through at least 2017.

Short-term findings are projected for 2014. These findings will serve as the basis for seeking support to extend CEA efforts beyond NC RttT funding, to at least 2017.

Introduction

The North Carolina Regional Leadership Academies in Context

The importance of strong school leadership, particularly in low-achieving schools, long has been recognized by researchers and practitioners alike. As Crawford (1998) notes, "Almost all educational reform reports have come to the conclusion that the nation cannot attain excellence in education without effective school leadership." Waters, Marzano, and McNulty (2003) add, "Just as leaders can have a positive impact on achievement, they can also have a marginal, or worse, a negative impact on achievement." North Carolina's Race to the Top (RttT) plan acknowledges the pressing need for quality leadership in low-achieving schools; the component of the plan that focuses on ensuring equitable distribution of high-quality teachers and leaders identifies, among other things, a need for "increasing the number of principals qualified to lead transformational change in low-performing schools in both rural and urban areas" (NCDPI, 2010, p.10). To meet this need, the state's RttT proposal included the development of Regional Leadership Academies (RLAs) that are "approved for certifying principals [and] designed to . . . provid[e] a new model for the preparation, early career support, and continuous professional development of school leaders" (NCDPI, 2010, p.10).

The overall purpose of the full evaluation of the NC RttT RLAs is to address the following evaluation questions over the course of the RttT grant:

- Do RLAs effectively recruit and train, relative to the alternatives?
- What impact does each RLA's selection criteria have on program effectiveness?
- Do RLA graduates find placements in targeted schools/districts?

North Carolina's RLAs will be supported for four years by RttT funding, but there is no guarantee of funding beyond the grant period. Thus, in addition to these questions, the evaluation of the RLAs includes the question:

• Are RLAs cost-effective relative to the alternatives?

Purpose of this Report and Proposed Methodological Approach

The purpose of this report is to start to address the fourth evaluation question by outlining the data required to conduct a meaningful cost-effectiveness analysis, as well as a set of appropriate comparison programs for use in this eventual analysis. We will begin with a description of our methodology and procedures for determining the cost-effectiveness of principal training programs. Based on reviews of the literature on cost-effectiveness methodology and reports of research on other principal training programs, input from members of the RttT evaluation team with expertise in education finance analysis, and RLA advisory meetings, we have selected Levin and McEwan's "ingredients list" approach (2001) to cost-effectiveness analysis (CEA) as our primary method of analysis.

Cost-effectiveness analysis ascertains costs—both pecuniary and non-pecuniary—and program effects and uses these data to provide insights into the effectiveness of programs in the context of

cost. Massey, Novick, and Peterson (1972) note that CEA meets a need for "*practical* aids to public policy planning and decision-making" (p. 2). According to Levin and McEwan (2001), CEA cannot determine "whether a program is worthwhile in an absolute sense," but it can help discern "whether a given alternative is relatively more cost-effective" (p. 11). In this relative sense, CEA can help policy makers and leaders make decisions on funding programs by weighing program inputs (personnel, equipment and materials, etc.) against program effectiveness or outputs (school improvement, staff retention gains, etc.).

Thus, CEAs rely on quality program cost data and appropriate measures of effectiveness. Pecuniary costs are typically provided by administrative program records such as budgets and annual audit records. Non-pecuniary costs, such as in-kind donations and less tangible benefits provided by partners, can be determined by reviewing program documents, conducting observations, and interviewing program staff members. Of equal importance to CEA, effectiveness must be considered carefully and measured appropriately.

As a result, the evaluators have been careful to draw a distinction between two related but essentially different cost-effectiveness scenarios. With the understanding that the RLAs and programs like them by their nature require more resources than do traditional school leadership training programs, the first scenario addresses whether the targeted outcomes of the RLAs outweigh the added costs associated with them, relative to traditional school administration preparation programs that do not specifically or exclusively prepare leaders for low-performing school settings. The second scenario addresses whether the RLAs are cost-effective relative to non-traditional alternative programs that serve the same or similar purposes.

In addition, the authors queried policy makers regarding which indicators of effectiveness would be of most use to them in making decisions regarding school leader preparation programs. Their responses were unanimous and will help to guide RLA cost study activities by extending the original set of evaluation questions, outlined above:

- Do RLA participants become principals?
- Do RLA matriculates who become principals stay in high-need schools?
- How do the schools with RLA matriculant principals perform?
- Do schools with RLA matriculant principals retain teachers (after initial staffing shifts) better than do principals who earned their credentials from other venues?

With a clear understanding of what CEA can be used for and of what is needed to complete a CEA of the RLAs, the authors have created in this document a framework for moving forward. In the report that follows, the RLAs first will be described in terms of partners, outcomes, and timelines. Next, comparable school leader training programs will be identified. Then, anticipated impacts, aligned with policymaker concerns listed above, will be defined. Finally, a plan for the CEA will be outlined, as well as the next steps required to enact that plan.

The North Carolina Regional Leadership Academies

NC RttT funds support three RLA programs serving three regions of North Carolina. One RLA (NorthEast Leadership Academy) was established one year before RttT funding was available, and two others (Piedmont Triad Leadership Academy and Sandhills Leadership Academy) were created following a selection process that included proposal submission to a selection committee composed of North Carolina educational leaders. A brief description of each of the RLAs follows.

NorthEast Leadership Academy (NELA)

- NELA is based at the North Carolina State University (NCSU) College of Education and serves the following 14 partner school districts: Bertie, Edgecombe, Franklin, Granville, Halifax, Hertford, Martin, Nash-Rocky Mount, Northampton, Roanoke Rapids, Vance, Warren, Washington, and Weldon City.
- Successful NELA matriculates will be granted NC Principal Licensure and a Masters of School Administration (MSA), conferred by NCSU.
- NELA selected and inducted Cohort 1 in the summer of 2010; this group will complete the program in May 2012 and will receive continued career support through 2014. Cohort 1 internships will be supported by NC RttT funds.
- Cohort 2 will be selected and inducted in the winter of 2012. Participants will complete the program in August 2013 and will have career support through 2014.
- Cohort 3 will be selected and inducted in the winter of 2013 and will complete the program in August 2014.
- NELA participants sign a three-year agreement to work in northeastern NC schools.
- NELA has been established by and embedded within the NCSU College of Education.

Piedmont Triad Leadership Academy (PTLA)

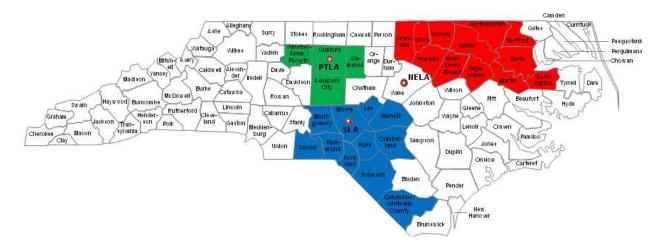
- PTLA is based at The University of North Carolina at Greensboro (UNCG) and serves the Piedmont Triad Education Consortium and the following 4 school districts: Alamance-Burlington, Asheboro City, Guilford, and Winston-Salem/Forsyth.
- Successful PTLA matriculates will be granted NC Principal Licensure and will earn credits towards a UNCG Post Masters Certificate in School Administration or an MSA.
- PTLA selected and inducted its Cohort 1 in the summer of 2011; this group will complete the program in June 2012.
- Cohort 2 will be selected and inducted in the summer of 2012 and will complete the program in June 2013.
- Cohort 3 will be selected in the summer of 2013 and will complete the program in June 2014.
- PTLA participants commit to three years of service in partnering districts upon program completion.
- PTLA has been established by UNCG faculty in partnership with schools districts.

Sandhills Leadership Academy (SLA)

- SLA was founded by the Sandhills Regional Education Consortium and serves the following 12 school districts: Anson, Columbus, Cumberland, Harnett, Hoke, Lee, Montgomery, Moore, Richmond, Robeson, Scotland, and Whiteville.
- Fayetteville State University, the University of North Carolina at Pembroke, and the North Carolina Center for the Advancement of Teaching are partners in SLA.
- Successful SLA matriculates will be granted NC Principal Licensure.
- SLA selected and inducted its Cohort 1 in the summer of 2011; this group will complete the program in June 2012.
- Cohort 2 will be selected and inducted in the summer of 2012 and will complete the program in June 2013.
- Cohort 3 will be selected in the summer of 2013 and will complete the program in June 2014.
- SLA participants commit to serving in the Sandhills region for a minimum of four years following program completion.
- SLA has been established by school districts in partnership with two universities.

The RLAs were created independently to meet the school leadership needs of a distinct region of North Carolina; thus, each RLA is a unique program with its own partnership, curriculum, methods, and pedagogy. Figure 1 shows the LEAs that are partnering with each RLA. Each RLA has followed its own path to implementation, and evaluators have been engaged in collecting and analyzing data related to that process as observers since April 2011.

Figure 1. Regions Served by the North Carolina Regional Leadership Academies



Selection of Comparison Programs

Cost-effectiveness analysis compares the costs and effects of two or more programs. According to Levin and McEwan (2001), appropriate cost-effectiveness comparisons use "programs with similar or identical goals ... and a common measure of effectiveness." The three RLAs, while unique in many ways, can be analyzed using CEA techniques since each has been created to "certify principals and provide a new model for the preparation, early career support, and continuous professional development of school leaders" (NCDPI, 2010, p.10). CEA cannot be used to determine "whether a program is worthwhile in an absolute sense," but it can be used to discern "whether a given alternative is relatively more cost-effective" (p. 11) than another. To this end, and as noted above, the evaluators identified comparison programs by vetting two lists of school leader training programs: one list of traditional, in-state programs that, without the presence of the RLAs, the state would rely upon more heavily to provide leaders for low-performing schools, and one list of programs with matriculant licensure criteria and purposes similar to those of the RLAs that could be considered reasonable alternatives, were they allowed to operate in the regions currently targeted by the RLAs.

The Evaluation Team generated these lists of possible comparison programs based on conversations with RttT evaluation leaders and the RLA Quality Assurance Committee (QAC)¹. The first list included three large Master's of School Administration (MSA) programs in the University of North Carolina system (Appalachian State University, the University of North Carolina at Charlotte, and East Carolina University's program). Appended to this list was the statewide North Carolina Principal Fellow's Program, which operates via several of the state's MSA programs but shares several characteristics in common with the new RLAs (see Table 1, following page). The second list included several non-traditional leadership training programs from across the country: New Leaders for New Schools (NLNS); the Aspiring Principals Program (APP) at the New York City Leadership Academy (NYCLA); the Principal Fellowship at the Boston School Leadership Institute (SLI); the Middle School Leadership Academy sponsored by Houston A+ Challenge; the Principal Prep School Leadership Program sponsored by the Knowledge is Power Program (KIPP); and the Principal's Residency Network at the Center for Leadership and Education Equity in Rhode Island.

During the first stage of vetting comparable programs, evaluators collected information on the alternative principal licensing programs by conducting a thorough online search for publicly available information.² After a thorough review of program websites and related research, it was determined that, while all three in-state traditional programs and the North Carolina Principal Fellows Program were appropriate for the first comparison category, many of the non-traditional principal training programs would not serve well for the second comparison category, as noted in Table 1 (next page). This table identifies programs considered and provides insight into the decisions to include or exclude programs as possible comparable programs for analytic purposes. It is important to remember the purpose of the RLAs as defined by NCDPI: to certify [license]

¹ The RLA Quality Assurance Committee includes NC RttT Advisory Board members, NC State Board of Education members, NC Department of Public Instruction representatives, Z. Smith Reynolds Foundation leadership, SAS Institute leadership, RLA directors and founding district leaders, and RLA evaluation co-leads.

² The literature review revealed a considerable gap in the research base regarding the costs of alternative principal licensing programs.

and prepare school leaders. As such, comparable programs must certify and prepare participants to become principals.

| Table 1. Comparable Principal Training Programs Considered for Regional Leadership | |
|--|--|
| Academy Comparison | |

| Program | Comparable | Factors Used to Determine Comparability |
|---|------------|--|
| Traditional Program | ns | |
| Master of School Administration (MSA) at Appalachian State University | Yes | The ASU MSA is representative of a traditional MSA program. NC Race to the Top evaluation leaders and Quality Assurance Committee members requested the inclusion of traditional MSA degree programs for comparison purposes. |
| MSA at the University of North Carolina at Charlotte | Yes | The UNCC MSA is representative of a traditional MSA program. NC Race to the Top evaluation leaders and Quality Assurance Committee members requested the inclusion of traditional MSA degree programs for comparison purposes. |
| MSA at East Carolina University | Yes | The ECU MSA is representative of a traditional MSA program. NC Race to the Top evaluation leaders and Quality Assurance Committee members requested the inclusion of traditional MSA degree programs for comparison purposes. ³ |
| North Carolina Principal Fellows Program | Yes | The NC Principal Fellows Program provides one year of full-time academic study and a one-year full-time internship in a NC public school. Fellows also participate in enrichment experiences and earn an MSA degree in two years. |
| Non-Traditional Pro | ograms | · |
| New Leaders for New Schools (NLNS) | Yes | The program begins with Foundations (a four-week summer session and a two-week school year seminar), followed by a residency with a mentor principal. Successful completers are granted principal licensure. |
| Aspiring Principals Program (APP) at the New York City Leadership Academy | Yes | The program begins with Summer Intensive (a six-week project- based learning experience), followed by a ten-month school residency with a mentor principal. Post-residency, participants complete a Planning Summer. Successful completers have earned the credits necessary to apply for School Building Leader (SBL) certification. |
| Principal Fellowship at the Boston School Leadership Institute (SLI) | No | Minimum requirements for admission included a Master's degree, a minimum of three years of experience, and state licensure. |

³ In the interest of full disclosure, the MSA at the University of North Carolina at Chapel Hill—which also could have served as a comparison MSA—is led by one of the evaluation team members. To avoid a conflict of interest, this program was removed from the list of eligible comparable programs.

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| Program | Comparable | Factors Used to Determine Comparability |
|---|------------|--|
| Middle School Leadership Academy sponsored by Houston A+ Challenge | No | The program serves middle school principals only and requires district enrollment in the Challenge Network for inclusion in a training cohort. |
| Principal Prep School Leadership Program sponsored by the Knowledge is Power Program (KIPP) | No | The program is "specifically tailored to prepare successor school leaders with the skills and competencies that they will need <i>to lead</i> an existing KIPP school." ⁴ |
| Principal's Residency Network at the Center for Leadership and Education Equity in Rhode Island | No | Requirements for admission include a Master's degree, a minimum of three years of experience, and state licensure. |

⁴ http://www.kipp.org/school-leaders/leadership-programs (emphasis added)

Measures of Cost-Effectiveness

Defining short- and long-term measures of program effectiveness is necessary to ensure that change can be measured over time and data collected accordingly. Short-term measures that can be used to determine program effects include: (a) whether successful participants or program completers became certified or licensed to serve as principals and (b) growth over time in key areas of leadership knowledge and expertise (measured by survey, portfolio review, or district school supervisor interviews). These measures can be tracked on a short-term or annual basis since one cohort or group will complete each program annually.

Long-term measures will be needed to gauge change over time in areas of key interest identified by policy makers. Additional data points – many of which will require tracking after the end of the RttT grant period – will be necessary to determine: (c) whether participants become principals, (d) whether those who become principals stay in high-need schools, (e) school performance gains that parallel program matriculant school leadership, and (f) teacher retention levels at schools led by program completers. Collection of data related to these long-term measures will not be possible until the program participants become school principals (the first cohort of each program does not enter the workforce until 2012-2013, and few are likely to enter directly as principals), and meaningful data on school leader tenure, school performance gains, and teacher retention rates will not be available for several years after that.

Table 2 details short- and long-term cost-effectiveness measures, possible data sources, and measure intervals.

| Measures | Data Sources | Interval |
|--|---|--|
| (a) Do participants become certified as principals? | Twice-yearly participant survey* | November and May of each year |
| | Twice-yearly participant survey | November and May of each year |
| (b) Growth over time in key areas of leadership knowledge and expertise | Portfolio review | Culminating participant evaluations |
| | District school supervisor interview | Annually after participants reenter the workforce |
| (c) Do participants become principals? | Twice-yearly participant survey | November and May of each year |
| (d) Do those who become principals stay in high-needs schools? | Twice-yearly participant survey | November and May of each year, following employment as a principal |
| (e) School performance gains that parallel program matriculant school leadership | NC school report card data | Annually, following employment as a principal |
| (f) Teacher retention levels at schools led by program completers | NC school report card data | Annually, following employment as a principal |

Table 2. Measuring cost-effectiveness.

**Note*: This survey is already being conducted as part of the larger RLA evaluation efforts.

Plan for the Cost-Effectiveness Analysis

Completing the cost-effectiveness analysis of RLAs will require a plan to arrive at a final determination of cost-effectiveness relative to comparable programs.

A Proposed Sequence of Next Steps

Step 1: Collect expenditure data from each of the RLAs.

A reference list of program inputs and costs that may be considered is included in Appendix A. RLAs submit budgets to NCDPI for monitoring purposes in compliance with federal requirements regarding the reporting of federally funded initiative expenditures. Budget, rather than actual expenditure, data for the RLAs is available in broad categorical classifications. Appendix B contains preliminary budget data for the RLAs.

Step 2: Separate ongoing costs from start-up costs and non-essential costs.

Much of the current cost of the RLAs is derived from one-time start-up costs that, if taken as part of the full cost for each program, will inflate the actual recurring operating costs. Care will be taken to sort out which costs are associated exclusively with program start-up. In addition, costs associated with beneficial but non-essential program components (e.g., cohort travel to out-of-state conferences and events) will be designated as such to allow for cost-effectiveness analyses of core-component-only models of each program.

Step 3: Conduct twice-yearly surveys with RLA matriculants as they move through the programs and into NC schools.

As part of the larger NC RttT evaluation efforts, a participant update survey is being administered in May and November of each evaluation year beginning in the fall of 2011. This survey focuses on discerning current RLA participant understanding of high needs or turnaround school leadership and current employment status. However, this survey will cease to be conducted when NC RttT funding ends in 2014.

Step 4: Contact comparison programs and solicit their cooperation around cost data collection and program participant outcomes.

To gain a preliminary sense of cost data for comparison programs, evaluators sourced gross cost information from publicly available sources, such as IRS Form 990 and state-level budget appropriations. These data do not necessarily reflect costs for the leadership training components of these programs; Form 990 data, for example, are organization-wide data that include expenditures beyond those related to leadership development work. Comparable programs will be contacted directly to solicit their cooperation in providing applicable cost data (see Appendix C for examples of Form 990 data).

Step 5: Report in 2014 on short-term CEA findings and prepare a proposal based on these findings for continuing evaluation activities through at least 2017.

Short-term findings are projected for 2014, as defined above in the Measures of Cost-Effectiveness section. These findings will serve as the basis for seeking support to extend CEA efforts beyond NC RttT funding, to at least 2017.

Considerations and Potential Limitations

It is important to reiterate once again that, in any direct cost comparison with traditional, in-state MSA programs, and even after accounting for one-time start-up costs, fundamental differences in the programs and support provided by the RLAs will cause them to appear to be more costly on a per-candidate basis. This part of the analysis will benefit most from the ability to continue to track costs and outcomes beyond the end of the grant period, when data for many of the longer-term measures listed above that are particularly salient to the types of leadership situations for which the RLAs are designed to prepare leaders (such as staff turnover in low-performing schools) are available.

Another facet of the proposed RLA cost study that may need to be revisited in the near future is reconciliation of budget records across RLAs. The degree of variability across the preliminary budget information provided by the three RLAs (Appendix B) was not altogether unexpected, but the requirements of CEA include the ability to compare the costs of programs against one another in parallel fashion. Plumbing the depths of program expenditures for a CEA will require working with the RLAs to support collection of more detailed budget data than is currently being collected.

It is worth noting, however, that the level of record keeping demanded for a full and formal CEA is both highly detailed and labor intensive; neither NCDPI nor the RLAs may be able to undertake this level of record keeping. In addition, the concern regarding the feasibility of obtaining optimal expenditure data may apply to comparable programs as well (depending upon their own levels of data collection). We will engage in conversations with NCDPI and RLA leadership to determine whether and to what extent we can work together to obtain finer-grained budget data for the RLAs, but it may be both reasonable and necessary to alter the plan for this CEA to reflect data availability limitations.

References

- College Board. (2011). *Pay for college: Break down the bill*. Retrieved October 27, 2011, from http://www.collegeboard.com/student/pay/add-it-up/482.html
- Crawford, J. (1998). Changes in administrative licensure: 1991–1996. UCEA Review, 39(3), 8–10.
- Levin, H. M., & McEwan, P. J. (2001). Cost-effectiveness analysis: Methods and application (2nd ed.). Thousand Oaks, CA: Sage.
- Massey, H. G., Novick, D. & Peterson, R. E. (1972). *Cost measurement: Tools and methodology* for cost effectiveness analysis. Santa Monica, CA: RAND. Retrieved October 27, 2011, from http://www.rand.org/pubs/papers/P4762
- North Carolina Department of Public Instruction. (2010). *Race to the Top application* [U.S. Department of Education proposal]. Retrieved October 27, 2011, from http://www2.ed.gov/programs/racetothetop/phase2-applications/north-carolina.pdf
- New Leaders for New Schools. (2008). *Return of Organization Exempt From Income Tax* [IRS Form 990]. Retrieved October 27, 2011, from http://www.guidestar.org/FinDocuments//2008/043/519/2008-043519203-04f9942a-9.pdf
- New Leaders for New Schools. (2009). *Return of Organization Exempt From Income Tax* [IRS Form 990]. Retrieved October 27, 2011, from http://www.guidestar.org/FinDocuments//2009/043/519/2009-043519203-05e6471c-9.pdf
- New Leaders for New Schools. (2010). *Return of Organization Exempt From Income Tax* [IRS Form 990]. Retrieved October 27, 2011, from http://www.guidestar.org/FinDocuments//2010/043/519/2010-043519203-071b72cf-9.pdf
- New York City Leadership Academy. (2008). *Return of Organization Exempt From Income Tax* [IRS Form 990]. Retrieved October 27, 2011, from http://www.guidestar.org/FinDocuments//2008/030/503/2008-030503570-04f9834b-9.pdf
- New York City Leadership Academy. (2009). *Return of Organization Exempt From Income Tax* [IRS Form 990]. Retrieved October 27, 2011, from http://www.guidestar.org/FinDocuments//2009/030/503/2009-030503570-0619382a-9.pdf
- New York City Leadership Academy (2010). *Return of Organization Exempt From Income Tax* [IRS Form 990]. Retrieved October 27, 2011, from http://www.guidestar.org/FinDocuments//2010/030/503/2010-030503570-07439e50-9.pdf

- U.S. Department of Education. (2010, August 24). *Nine states and the District of Columbia win second round Race to the Top grants* [Press release]. Retrieved October 27, 2011, from http://www.ed.gov/news/press-releases/nine-states-and-district-columbia-win-second-round-race-top-grants
- Waters, J. T., Marzano, R. J., & McNulty, B. A. (2003). *Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement*. Denver, CO: Midcontinent Research for Education and Learning.

| Program inputs | Program outputs | |
|---|---|--|
| Personnel | Student | |
| Director salary | Satisfaction | |
| Co-director salary | Performance | |
| Coordinator salary | Dropout rates | |
| Participant salary | Grade-level retention rates | |
| Support staff salary | Matriculation into college enrollment | |
| Instructor salary / contract fee | Matriculation into the workforce | |
| Coach salary / contract fee | Other student output | |
| Mentor honoraria / stipends | | |
| Consultants | Teacher | |
| Fringe | Satisfaction | |
| Other salaries | Retention | |
| | Other teacher outputs | |
| Equipment and materials | | |
| Administrative supplies and materials | District | |
| Participant supplies and materials | Increased number of degree-holding staff | |
| Office supplies | Cachet of graduate degree holder | |
| Instructional supplies | Increased number of licensed staff | |
| | Reduced cost of replacement due to program- | |
| Equipment | related commitment to service | |
| Project materials and resources | Other district outputs | |
| Administrative technology | | |
| Participant technology | Local community | |
| Printing/photocopying | Economic benefit of better-educated citizens | |
| | Increasing partnerships between school/district | |
| Postage/shipping | and community agencies and organizations | |
| Other equipment and materials | Other local outputs | |
| ether equipment and materials | | |
| Facilities | Regional (in-state) community | |
| Classroom/course space | Economic benefit of better educated citizens | |
| | Increasing partnerships with institutions of | |
| Program meeting space | higher education | |
| | Enhanced feedback to education leadership and | |
| Program office space | teacher education programs | |
| Other facilities | Other regional (in-state) community outputs | |
| | | |
| Other inputs | Statewide community | |
| In-kind contributions to program: | | |
| in and controlations to program. | | |
| • Telephone service | | |
| Internet access | Economic benefit of better-educated citizens | |
| Webpage server space | | |
| - moopage server space | | |
| | Relationship building with state educational | |
| Participant tuition Relationship building with state education agencies | | |
| Substitute teachers | | |
| Substitute teachers | Relationship building with state board of | |

Appendix A. CEA Framework: Program Inputs and Outputs

| Program inputs | Program outputs | | |
|--|---|--|--|
| | education | | |
| Ctinon do (honoronio | Relationship building with philanthropic | | |
| Stipends/honoraria | foundations | | |
| Training programs | Other statewide community outputs | | |
| Program staff travel (e.g., conference, meeting) | | | |
| Participant travel (e.g., conference, meeting) | Regional community | | |
| Program staff travel (e.g., daily transit, mileage) | Economic benefit of better-educated citizens | | |
| Dertisinent travel (s. c. deile transit milesee) | Program contributions to conferences, trainings | | |
| Participant travel (e.g., daily transit, mileage) | meetings, and symposia | | |
| T-1 | Enhanced school leader training program | | |
| Telephone services | consistency | | |
| Tertamont and a second | Contributions to the best-practice knowledge | | |
| Internet access | base | | |
| Webpage server space | Other regional community outputs | | |
| Advertising | | | |
| Recruiting | Other outputs | | |
| | In-kind contributions from the programs: | | |
| Indirect costs | Participant tutoring, classroom assistance, mentoring, etc. Participant professional development provision | | |
| | Broad human capitol advances in the areas of: | | |
| Support services | Grant writing | | |
| | Building leadership | | |
| | • Awareness of new school leaders | | |
| Miscellaneous inputs | Miscellaneous outputs | | |
| Note: Broad categories of program inputs were informed | | | |

Note: Broad categories of program inputs were informed by Levin & McEwan, 2001, pp.49–58.

Appendix B. RLA Data

| | Year 2 | Year 3 | Year 4 |
|---------------------------|-------------|-------------|-------------|
| NELA staff salaries | 222,863 | 229,549 | 236,436 |
| Fringe benefits | 62,402 | 64,274 | 66,202 |
| Travel | 5,280 | 5,280 | 5,280 |
| Materials and resources | 5,000 | 5,000 | 5,000 |
| Cohort 1 | 98,715 | 50,632 | 0 |
| Cohort 2 | 579,284 | 275,499 | 53,923 |
| Cohort 3 | 0 | 518,564 | 250,163 |
| Other: NCSU indirect | 146,032 | 172,320 | 92,551 |
| Total functional expenses | \$2,019,576 | \$2,248,118 | \$1,505,229 |

 Table B1. NorthEast Leadership Academy (NELA) Budget, 2011–2013

Note: Data provided by NorthEast Leadership Academy director. NELA preceded Race to the Top (RttT) funding by one year, so Year 1 is not included in this table. Therefore, RttT funding supported Cohort 1 participants during their internships only. Cohort 1 coursework and field learning was funded by other monies. NELA's total RttT funding allotment was \$5,772,923; NCDPI withheld \$2,622,675 for intern salaries and fringe benefits to be distributed by respective local education agencies.

5,772,923 across 63 interns, plus 25,336 in state appropriations for graduate credits = *c*. 116,500 per NELA graduate

| | Year 1 | Year 2 | Year 3 |
|----------------------------|-------------|-------------|-------------|
| Director | 100,000 | 103,000 | 106,090 |
| Coordinators | 54,500 | 56,135 | 57,819 |
| Instructors | 69,000 | 71,070 | 73,202 |
| Coaches | 50,000 | 51,500 | 53,045 |
| Fringe benefits | 54,460 | 56,094 | 57,777 |
| Supplies and materials | 1,000 | 1,030 | 1,061 |
| Office supplies | 1,000 | 1,030 | 1,061 |
| Instructional supplies | 12,500 | 12,875 | 13,261 |
| Equipment | 1,000 | 1,030 | 1,061 |
| Professional development | 20,000 | 20,600 | 21,218 |
| Support services | 64,000 | 65,920 | 67,898 |
| Contracted services | 25,000 | 25,750 | 26,523 |
| Telephone | 0 | 0 | 0 |
| Travel | 5,000 | 5,150 | 5,305 |
| Advertising and recruiting | 20,000 | 20,600 | 21,218 |
| Printing | 1,000 | 1,030 | 1,061 |
| New administrator support | 0 | 70,000 | 72,100 |
| Other: Tuition | 92,232 | 94,999 | 97,849 |
| Other: UNCG indirect | 19,917 | 20,514 | 21,130 |
| Other: Internship stipends | 1,365,000 | 1,405,950 | 1,448,129 |
| Total functional expenses | \$1,955,609 | \$2,084,277 | \$2,146,808 |

Table B2. Piedmont Triad Leadership Academy (PTLA) Budget, 2011–2013

Note: Data provided by NC Race to the Top (RttT) leaders and PTLA director. PTLA's total RttT funding allotment was \$6,186,694.

\$6,186,694 across 63 interns, plus \$12,668 in state appropriations for graduate credits = c. \$110,500 per PTLA graduate

| | Year 1 | Year 2 | Year 3 |
|---|-------------|-------------|-------------|
| Director | 60,000 | 60,000 | 60,000 |
| Leadership Academy supervisor and executive coach | 75,000 | 75,000 | 75,000 |
| Instructors | 23,500 | 23,500 | 23,500 |
| Executive coaches (4) | 220,000 | 220,000 | 220,000 |
| Fringe benefits | 71,000 | 71,000 | 71,000 |
| Supplies and materials | 3,900 | 2,900 | 2,900 |
| Office supplies | 2,250 | 2,250 | 2,250 |
| Instructional supplies | 5,000 | 5,000 | 5,000 |
| Equipment | 3,500 | 750 | 750 |
| Support services | 8,000 | 8,000 | 8,000 |
| Telephone | 2,340 | 2,340 | 2,340 |
| Travel | 17,500 | 17,500 | 17,500 |
| Advertising and recruiting | 1,000 | 500 | 500 |
| Printing | 5,000 | 5,000 | 5,000 |
| Executive interns (25) | 1,250,000 | 1,250,000 | 1,250,000 |
| Other: North Carolina Center for the Advancement of Teaching (NCCAT) | 95,647 | 95,647 | 95,647 |
| Total functional expenses | \$1,843,637 | \$1,839,387 | \$1,839,387 |

Table B3. Sandhills Leadership Academy (SLA) Budget, 2011–2013

Note: Data provided by NC Race to the Top (RttT) leaders and SLA director. SLA's total RttT funding allotment was \$5,522,411.

5,522,411 across 63 interns, plus 12,668 in state appropriations for graduate credits = *c*. 100,000 per SLA graduate

Table B4. Sample Data from In-State MSA Program: East Carolina University's Master's of School Administration Program, 2011–2012

| Description | 2011–2012 Academic year |
|--|-------------------------|
| Average amount appropriated by the State of North Carolina per full- time student (9+ hours per semester for graduate students) | \$12,668 (per year) |
| Tuition and fees per year | \$7,372 |
| Books and course supplies per year** | \$1,137 |
| Total student expenses (for 2.5 years) | \$21,272 |
| Total student and state expenses | <i>c</i> . \$53,000 |

Note: Data from East Carolina University (2011a, 2011b).

* Assumes that a NC state resident attends ECU as a full-time graduate student taking three 3-hour courses per semester for five semesters at a constant Fall 2011 tuition and fee rate for five consecutive semesters (2.5 academic years) with all applicable fees. ECU's MSA requires 42 credit hours for completion, which includes a one-year internship.

** Based on the College Board (2011) national average for four-year undergraduate books and supplies costs per year.

| Description | 2011–2012 Academic year |
|---|-------------------------|
| First Year Fellows | \$30,000 |
| Second Year Fellows | \$41,910 |
| PF Administrative Costs for Director, Administrative Assistant, and operating cost support (\$175,861 per year divided by 110 Fellows = \$1600 per Fellow per year times 2 years) | \$3,200 |
| Average amount appropriated by the State of North Carolina per full- time student (9+ hours per semester for graduate students) | \$12,668 (per year) |
| Expense per PF graduate | <i>c</i> . \$100,000 |

Table B5. Sample Data from North Carolina Principal Fellows Program

Note: Data from PF Director for 2010-2011. These figures do not include administrative costs on the side of the NC Education Assistance Authority and/or NC DPI.

Appendix C. Sample Form 990 Data

| Form 990 Component |
|--|
| Compensation of current officers, directors, key employees, etc. |
| Salaries and wages of employees not included above |
| Employee benefits not included above |
| Payroll taxes |
| Accounting fees |
| Other fees for services (non-employees) |
| Advertising and promotion |
| Office expenses |
| Supplies |
| Telephone |
| Postage and shipping |
| Printing and publications |
| Information technology |
| Occupancy |
| Travel |
| Conferences, conventions, and meetings |
| Depreciation, depletion, etc. |
| Professional fees: Consultants |
| Marketing |
| Insurance |
| Mentoring expenses |
| Professional development |
| Payroll processing fees |
| Fundraising expenses |
| Bad debt expense |

Appendix D. Additional Works Consulted

- Aarons, D. I. (2009). Principal program in N.Y.C. linked to student test gains. *Education Week*, 29(1), 7.
- American College of Physicians. (2000). Primer on cost-effectiveness analysis. *Effective Clinical Practice*, *3*(5), 253–255. Retrieved October 27, 2011, from http://www.acponline.org/clinical_information/journals_publications/ecp/sepoct00/prime r.pdf
- Carpenter, M. & Haggart, S. A. (1970). *Cost-effectiveness analysis for educational planning*. Santa Monica, CA: RAND. Retrieved October 27, 2011, from http://www.rand.org/pubs/papers/P4327
- Cheney, G.R., Davis, J., Garrett, K., Holleran, J. (2010). *A new approach to principal preparation: innovative programs share their practices and lessons learned*. Fort Worth, TX: Rainwater Leadership Alliance.
- Darling-Hammond, L. (2008). A future worthy of Teaching for America. *The Phi Delta Kappan*, 89(10), 730–733. Retrieved October 27, 2011, from http://www.jstor.org/stable/40792266
- Darling-Hammond, L., LaPointe, M., Meyerson, D., Orr. M. T., & Cohen, C. (2007). Preparing School Leaders for a Changing World: Lessons from Exemplary Leadership Development Programs. Stanford, CA: Stanford University, Stanford Educational Leadership Institute.
- Davis, S., Darling-Hammond, L., LaPointe, M., & Meyerson, D. (2005). Developing successful principals. Stanford, CA: Stanford Educational Leadership Institute. Retrieved October 27, 2011, from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.123.7780&rep=rep1&type=pdf
- Department of the Treasury, Internal Revenue Service. (2011). *Instructions for Form 990 Return* of Organization Exempt from Income Tax [i990]. Retrieved October 27, 2011, from http://www.irs.gov/pub/irs-pdf/i990.pdf
- East Carolina University. (2011a). *Graduate catalog 2011–2012*. Retrieved October 27, 2011, from http://www.ecu.edu/cs-acad/grcat/programLEED.cfm
- East Carolina University. (2011b). *Cashier*. Retrieved October 27, 2011, from http://www.ecu.edu/financial_serv/cashier/tufee.cfm
- Edejer, T. T., Baltussen, R., Adam, T., Hutubessy, R., Acharya, A., Evans, D. B., & Murray, C.J. L. (Eds.). (2003). *Making choices in health: WHO guide to cost-effectiveness analysis.*

- Geneva: World Health Organization. Retrieved October 27, 2011, from http://www.who.int/choice/publications/p_2003_generalised_cea.pdf
- English, F. W. (Ed.). (2005). *The Sage handbook of educational leadership*. Thousand Oaks, CA: Sage.
- Gold, M. R., Siegel J. E., Russell, L. B., & Weinstein, M. C. (Eds.). (1996). Cost-effectiveness in health and medicine. New York: Oxford University Press.
- Institute of Education Sciences. (2008). Rigor and relevance redux: Director's biennial report to Congress (IES 2009-6010). Washington, DC: U.S. Department of Education.
- Jackson, B. L., & Kelley, C. (2002). Exceptional and innovative programs in educational leadership. *Educational Administration Quarterly*, 38(2), 192–212. Retrieved October 27, 2011, from http://eaq.sagepub.com/content/38/2/192.short
- Levine, D. (2003, January). *Cost effectiveness analysis*. Presented at the Institute for Defense Analyses, Alexandria, VA. Retrieved October 27, 2011, from http://classweb.gmu.edu/aloerch/Levinelec03.pdf
- Margolis, M. A. (1966). *Cost analysis: Concepts and methods outline*. Santa Monica, CA: RAND. Retrieved October 27, 2011, from http://www.rand.org/pubs/papers/P3344
- Maxwell, L. (2007). Real-world lessons. *Education Week*, 27(3), 3. Retrieved October 27, 2011, from http://preview.region10.org/StrategicCommunication/MemberArea/documents/03wallace 2007.pdf
- Quade, E. S. (1965). *Cost-effectiveness: An introduction and overview*. Santa Monica, CA: RAND. Retrieved October 27, 2011, from http://www.rand.org/pubs/papers/P3134
- Quade, E. S. (1965). *Cost-effectiveness analysis: An appreciation*. Santa Monica, CA: RAND. Retrieved October 27, 2011, from http://www.rand.org/pubs/papers/P3248
- Quade, E. S. (1965). *Some comments on cost-effectiveness*. Santa Monica, CA: RAND. Retrieved October 27, 2011, from http://www.rand.org/pubs/papers/P3091
- RAND. (1964). *Cost-effectiveness analysis as a management tool*. Santa Monica, CA: Author. Retrieved October 27, 2011, from http://www.rand.org/pubs/papers/P2988
- Robinson, R. (1993). Cost-effectiveness analysis. British Medical Journal, 307, 793-795.
- Springer, M. G., Houck, E. A., Ceperly, P. E., & Hange, J. (2007). Revenue generation and resource allocation and deployment practices in smaller learning communities: Lessons learned from three high schools. *Journal of Education Finance*, *32*(4), 462–488.

- Swords, P. (2011). *How to read the new IRS Form 990*. Retrieved October 27, 2011, from http://www.npccny.org/new990/new990-1.htm
- Teitel, L. (2006). Mapping the terrain of "alternative" leadership education: Lessons for universities. *The Phi Delta Kappan*, 87(7), 500–507. Retrieved October 27, 2011, from http://www.jstor.org/stable/20442059
- US Department of Education, Office of Innovation and Improvement. (2004). *Innovations in Education: Innovative Pathways to School Leadership*. Washington, D.C.
- Woodhall, M. (2004). *Cost-benefit analysis in educational planning*. Paris: UNESCO, International Institute for Educational Planning. Retrieved October 27, 2011, from http://unesdoc.unesco.org/images/0013/001390/139042e.pdf