

Project Narrative
Improving Data Use in Schools: Expanding the Achievement Network Model

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Criteria A: Need for the Project and Quality of Project Design

The Achievement Network (ANet) is a nonprofit organization, founded in 2005, that works to close the achievement gap and help all students attain academic excellence by providing schools that serve high-need students in grades 3-8 with effective data-driven strategies to identify and close gaps in student learning and to embed these strategies into schools' everyday routines. ANet's model encourages and facilitates the evaluation, analysis, and use of student achievement and growth data by educators to inform decision-making and improve student achievement and growth, addressing Absolute Priority 2. ANet submits this application to the Investment in Innovation Fund (i3) to further refine, test and expand this model of data-driven improvement to benefit up to 120 low-income schools in four cities and more than 1,000 of their teachers and 25,000 of their students over a four-year period¹.

The Need

The U.S. educational achievement gap, with African-American, Latino, and low-income students consistently underperforming their white, more-affluent peers, creates long-term societal disparities. McKinsey & Company² recently found that students scoring in the top quartile on an 8th grade math assessment had a 40% higher median income 12 years later than students in the bottom quartile. Yet, the same study found that lower scorers who are able to improve their performance between grades 3-8 are much more likely to graduate high school with honors and benefit from long-term higher earnings. To counteract the persistent achievement gap that is ubiquitous in the U.S. education system, the federal government enacted the No Child Left Behind Act (NCLB) to hold schools and districts accountable to meet state

¹ Number of students and teachers reached by the proposed project is an estimate based on our average numbers of students (210) and teachers per school (8.5), and thus may differ from actual numbers depending on school size and attrition over the four-year grant period

² McKinsey & Company, Social Sector Office, Economic Impact of the Achievement Gap in America's Schools, April 2009

benchmarks. The resulting accountability-driven testing has left schools awash in data; however, year-end test results, received the following school-year, do not allow teachers to use the results to target their instruction to help students learn. Real-time testing and data is imperative in schools, in order for teachers to assess student understanding of specific aspects of the curriculum and rethink their teaching approach in problem areas. Real-time data can be derived from interim assessments, which are evaluations with results that can be aggregated and are designed to inform classroom and district-level decisions. They can also be derived from formative assessments, which are assessments embedded within learning activities that are more difficult to aggregate. Even with real-time assessments, data alone is insufficient to improve student achievement when teachers and school leaders lack the supports to allow them to effectively utilize it. Data must be accompanied by reporting systems, professional development (PD), support structures, and management practices that impact teaching and learning.³

Schools across the country lack the tools and support to encourage the effective use of data. Only about 50% of principals in a recent, large California study reported that their school district uses student achievement data to identify needs for improved teacher practice or that the district provides a computer-based system to access and review student data. Further, only 20% of these principals believe that the district provides adequate training to enable the effective use of data management software that does exist.⁴ In Philadelphia, which implemented a district-wide interim assessment program, the full potential to improve student achievement was limited by school leaders' lack of training in facilitating probing conversations that promote teachers'

³ Perie., M., Marion, S., Gong, B., & Wurtzel, J. (2007, November). *The role of interim assessments in a comprehensive assessment system*. Washington, DC: The Aspen Institute, p.21

⁴ Williams, T., Kirst, M., Haertel, E., et al. (2010). *Gaining Ground in the Middle Grades: Why Some Schools Do Better*. Mountain View, CA: EdSource. Narrative Report, p. 9

learning about curriculum and pedagogy.⁵ A study comparing Philadelphia’s experience with its surrounding suburbs found that the most powerful aspect of interim assessments- facilitating teacher understanding of why students struggle to rethink teaching strategies- was lost in most classrooms due to poor test quality, teachers’ knowledge gaps, teachers’ diagnostic ability, and the lack of a sense of responsibility among teachers for improving instruction.⁶

ANet believes that schools need a comprehensive solution that offers tools to periodically assess student progress towards high standards, reports identifying student gaps, coaching for school leaders and teachers to address these gaps, and forums for sharing performance data and practices across schools. Beyond the ANet model, a void currently exists in education for such a comprehensive offering or even for high-quality single-offerings. Commercial assessment offerings from major publishers, such as Houghton Mifflin, tend to be poorly designed, are not aligned to state standards, and are devoid of PD services.⁷ Scoring and reporting platforms, such as those from Edusoft, only focus on data and scanning, and lack broad functionality. The leadership coaching and teacher training market is highly fragmented, with providers that lack data-oriented solutions and offer expensive and less effective “one-shot” seminars. Some Charter Management Organizations (CMOs) and other school networks provide supports within their organizations for the use of data, but this is only provided to a small percentage of the schools and students in need of such services.

ANet Program and Organization Model

ANet’s comprehensive solution addresses these deficiencies. ANet was founded in 2005 to provide a small cohort of Boston charter schools with high-quality assessments, coaching and

⁵ Christman, J., Neild, R., Bulkley, K., Blanc, S., Liu, R., Mitchell, C., & Travers, E. (June 2009). *Making the Most of Interim Assessment Data: Lessons from Philadelphia*, Research for Action, p. 3.

⁶ Goertz, M., Nabors Olah, L., Riggan, M. (2009, December) *Can interim assessments be used for instructional change?*, CPRE Policy Brief RB-51, Philadelphia: Graduate School of Education, University of Philadelphia.

⁷ Perie, M., et al, 2007, p. 9, 12, 13.

training on developing ongoing practices that support the use of data. ANet now serves charter and district schools in Massachusetts, Washington, D.C., New Orleans, Newark, Chicago and Ohio. In the 2009-2010 school year, we served 89 schools, marking significant growth from 32 schools the previous year, and continuing to grow to 147 schools next year. These additional 58 schools in 2010-11 represent organic growth independent of the i3 project.

Combining high-quality standards-aligned assessments, educator coaching, and peer Networks, ANet enables schools to use data to increase high-need student achievement. ANet’s comprehensive solution includes:

Components	Description
Aligned Assessments	<ul style="list-style-type: none"> • Four assessments administered every 6-8 weeks in mathematics and English Language Arts aligned to states’ standards for grades 3-8
Logistical Support	<ul style="list-style-type: none"> • Generate performance reports identifying school, class and student strengths and gaps • Collect assessments from schools and score within 48 hours
Training & Coaching	<ul style="list-style-type: none"> • 4-14 school trainings and observations annually (depending on school needs) • Two Network-wide professional trainings annually
Networks	<ul style="list-style-type: none"> • Reports showing schools’ performance in relation to other Network schools • Two Network meetings of member schools annually

Aligned Assessments & Logistical Support: Every 6-8 weeks, schools administer two ANet interim assessments- one in English Language Arts (ELA) and one in mathematics- to students in grades 3-8. Each assessment takes place during one regular classroom period and tests recently taught material. ANet’s high-quality assessments are aligned to individual state standards with the same degree-of-difficulty as the year-end state tests, allowing teachers to pinpoint precise aspects of the curriculum that they must re-teach using a different approach and other parts of the curriculum through which they can move faster. The assessments show an average Kuder-Richardson reliability of ██████ which is the correlation between performance on ANet

assessments and state summative assessments. ANet assessments also teach beyond the level of state tests, as 8th grade math teacher [REDACTED] noted, “It's not about teaching to the test. The ANet assessment asks questions in a lot of different ways. It's as real world as it can get.”

ANet also provides logistical support to score its assessments- collecting the assessments from schools and scoring answer sheets- and returns performance reports to school leaders and teachers within 48-hours.

Training & Coaching: ANet coaches, called Directors of School Support (DSS), work directly with Network schools to teach them how to analyze assessment results, identify gaps in student learning, create action plans to address these gaps, and assess the effectiveness of action plans. DSS are former teachers with experience in high-performing district and charter schools with a track record of closing the achievement gap. DSS report to Network Managing Directors, who provide additional coaching to schools, and build and maintain relationships with the schools and districts. Each Network school has a data leadership team, generally comprised of a Principal, Vice Principal, Department Heads, Curriculum Chairs, and logistical coordinator, that is responsible for goal-setting and embedding ANet’s recommended practices into the school’s routines. The data leadership team and DSS work together to:

- Determine performance objectives on state assessments over a 3-5-year span
- Establish yearly and quarterly milestones on ANet assessments
- Create practice goals from the *ANet Best Practice Rubric and Framework* (contained in Appendix H) that can help the school to reach its milestones in terms of both student achievement and self-sufficiency in carrying out best practices.⁸

Networks: Part of the ANet model’s value proposition is in its geographically-based peer learning Networks of schools that work together to improve their use of data. The Network approach facilitates dissemination of the effective data practices of high-achieving schools,

⁸ ANet developed the *Best Practice Rubric* on organizational and instructional effective practices through research, experience, and best practices in successful schools.

particularly to struggling schools within the same Network. This system is also cost-effective, spreading the fixed costs of ANet coaches, PD sessions, etc. across a group of schools. Within

Networks:

- School data leadership teams meet twice annually to exchange problem-solving strategies and best practices, and build Network cohesiveness
- Teachers attend two PD events each year to understand the process of item creation and ways to grade open-ended question responses; enable group problem solving; and share performance data and best practices
- ANet holds an annual showcase celebrating the schools' work
- Teachers and school data leadership teams also regularly share performance data following interim assessment administration

Project Goals, Strategy and Outcomes

The four-year \$5.0 million i3 grant will allow ANet to expand while continuously improving its program and contributing its base of research. This grant will allow ANet to encourage and facilitate the evaluation, analysis, and use of student achievement and growth data by educators to inform decision-making and improve student achievement and growth. ANet's i3 project has three goals:

- Increase student achievement for high-need students by expanding ANet's data-driven model to new schools within four current ANet Networks
- Validate the impact of ANet's model on achievement through formal evaluation
- Refine and share the ANet model for implementation by more schools

ANet applies for this i3 grant in partnership with the following school districts and CMOs to expand four current ANet Networks:

- **Massachusetts:** Boston Public Schools
- **Washington, DC:** District of Columbia Public Schools (DCPS), DC Prep Academy Public Charter School, and Friendship Public Charter Schools
- **Louisiana:** Recovery School District and ReNEW Charter Management Organization
- **Illinois:** Chicago Public Schools (CPS) and Chicago International Charter School

Evidence of these partnerships may be found in MOUs Appendix D, and DCPS support is expected within the i3 time frame. Criteria G describe the characteristics of the schools within these districts and CMOs that ANet will target.

The objectives, strategies and outcomes to achieve the i3 project goals are described below:

Goal 1: Increase high-need student achievement in four current ANet Networks by expanding ANet's data-driven model to new schools.

Objective 1: Serve up to an additional 120 schools, over 1,000 teachers and 25,000 students

- **Strategy 1a:** ANet will use the 2010-11 school year to plan its project implementation and select schools
- **Strategy 1b:** One group of 60 schools across Networks will receive ANet services beginning in September 2011, serving as the evaluation treatment group. Another group of 60 schools will receive ANet services beginning in September 2013, before which time it will serve as the control group
- **Strategy 1c:** Expand each ANet Network in DC, New Orleans, Chicago, and MA Network [REDACTED] between September 2011 and June 2014. Networks will expand to a mixture of district and charter schools

Outcomes:

- 120 new schools with 1,000 teachers use data to inform decision-making and instruction
- [REDACTED]

[REDACTED] This outcome is based on historical gains in ANet Boston Public Schools. We would expect gains to be sustained over several years.

Goal 2: Further validate through formal evaluation the impact of ANet on achievement

Objective 2: Quantify relationship between ANet model and higher student achievement as measured on state summative assessments

- **Strategy 2a:** Contract with independent evaluator to conduct a randomized control study to measure the impact of ANet's model. The Center for Education Policy Research at the Harvard Graduate School of Education is interested in serving as ANet's evaluation partner (see Appendix D).
- **Strategy 2b:** Publish and share i3 project evaluation results

Outcomes:

- Valid, large-scale study demonstrating that the ANet model is associated with higher academic performance as measured on the state summative assessments
- Augment the body of research on the relationship between interim assessment programs and higher student achievement

Goal 3: Share effective practices in the use of data to increase student achievement, and enable data aggregation, analysis, and research

Objective 3: Refine and share ANet model for implementation in additional schools

- **Strategy 3a:** Refine and publish the ANet model through the i3 project evaluation
- **Strategy 3b:** Embed research and evaluation capabilities into the ANet expansion to benefit schools beyond the scope of the i3 project

Outcomes:

- Description of research-based approach that teachers find useful and achieves results
- Additional data sets for use in further analysis and research
- Refined ANet model that includes research and evaluation components

Criteria B: Strength of Research, Significance of Effect & Magnitude of Effect

ANet's i3 project to improve student achievement and narrow the achievement gap is based on reasonable hypotheses that are supported by a variety research-based findings and practices.

Support for Project

The genesis for effectiveness claims about interim assessments was a seminal Black and Wiliam study, which found that formative assessments had a significant effect (0.4-0.7) on student achievement. This effect was larger than most educational interventions and was also found to reduce the achievement gap, while raising achievement overall, by differentially helping lower achievers. An effect size of 0.4 translates to an average student rising to the top 35%. An effect size of 0.7 translates to a nation scoring in the middle of a comparative mathematics study rising to one of the top five.⁹ However, formative and interim assessments are not the same, and

⁹ Black, P., Wiliam, D. (1998, October) *Inside the black box: Raising Standards Through Classroom Achievement*, Phi Delta Kappan, v. 80, n. 2, p. 141

thus could potentially have different impacts on student achievement.¹⁰ Since this study, the education community has reached broad consensus that interim assessments must be well-designed and supported by a range of school-level practices in order to improve student achievement, as the response to Criteria A outlined. The comparative study in Philadelphia noted in Criteria A recommended the following effective practices for interim assessments: design high-quality assessments that are aligned with curriculum, allocate school-level resources to support instructional changes, provide timely and accurate results and PD on interpreting data and connecting it to instructional approaches, and model effective data use by school leaders.¹¹ These recommendations imply a hypothesis that the practices, which are aligned with ANet’s model, will improve student achievement. Similarly, the What Works Clearinghouse Practice Guide proposed policy recommendations on the use of data to improve student achievement: make data an ongoing part of instructional improvement, teach students to examine their own data and set learning goals, establish a clear vision for school-wide data use, provide supports that foster a data-driven culture, and develop and maintain a district-wide data system.¹² These recommendations, which are also consistent with ANet’s model, serve as another hypothesis of the link between effective data practices and student achievement.

Research for Action conducted one of the first large-scale empirical studies on the use of interim assessments, finding an impressive impact on student achievement in the School District of Philadelphia, which was an early system-wide adopter of interim assessments. From 2002-2007, the percentage of fifth and eighth graders scoring “Advanced” or “Proficient” (A+P) on

¹⁰ Perie, M., et al, 2007, p. 1.

¹¹ Goertz, M., et al., 2009, p.8

¹² Hamilton, L., Halverson, R., Jackson, S., Mandinach, E., Supovitz, J., & Wayman, J. (2009) Using student achievement data to support instructional decision making (NCEE 2009-4067). Washington, DC: National Center for Educational Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc/publications/practicesguides/>, p. 8.

the PA System of School Assessment (PSSA) tests increased 26 percentage points in math. In reading, the percentage increased by 11 points in fifth grade and 25 points in eighth grade. The percentage scoring in the lowest category dropped in all tested grades by 26 points in math and 12 points in reading. Achievement gains occurred despite under-funding by the state and the city’s high and growing rate of poverty, the highest among the nation’s ten largest cities.¹³

Project Attempted with Promising Results

ANet has implemented the comprehensive model outlined in this i3 grant over the last five years with promising results. ANet contracted with an independent Bain & Company, MBA-trained consultant to perform a matched study of the performance of ANet Massachusetts Network schools with schools with similar demographics. Matched schools coincide with ~95% of the ANet school profile along each of six variables, including school size, past student performance, and percentage of students classified as low-income, African American, Hispanic, and special education. Schools were matched for each ANet grade (5-8) and subject (ELA and math), resulting in eight sets of matched schools in addition to a ninth overall set of matched schools. As illustrated in the chart below, ANet schools’ performance gains exceeded the gains of the matched set, Boston Public Schools (BPS) and the Commonwealth.

2009 Gains in % Students Scoring Advanced or Proficient on MCAS

		<u>BPS</u>	<u>MA</u>
ELA		1%	1%
Math		-1%	1%

ANet schools’ higher rates of MCAS performance growth allowed them to narrow the achievement gap with other schools in the Commonwealth, which is particularly impressive when considering the high-needs demographics of students in ANet schools. Please refer to Criteria C for additional evidence of ANet’s promising results.

¹³ Christman, J., et al., 2009, Introduction

Magnitude of Effect on Improving Student Achievement

ANet has found that consistent and effective implementation of our *Best Practices Rubric* (see Appendix H) promotes higher performance among schools and students. ANet’s model, proposed in this project, has a positive, important impact on student achievement and growth, and closing achievement gaps. ANet’s *Implementation Rubric* (also see Appendix H) illustrates the actual correlation between fidelity to ANet practices and MCAS performance trends- as schools move higher up on the rubric from zero through three, their test scores improve from below-district/state gains to gains significantly greater than those in the district/state. The chart also demonstrates how schools move toward self-sufficiency over time- as schools integrate ANet’s practices into their culture and operating procedures, they require less ANet intervention.

In Philadelphia, Research in Action found that teacher supports accompanying the use of interim assessment data, which correspond to ANet supports and best practices, were statistically significant predictors of student learning growth, with the magnitude of effect in some years exceeding the moderate effect threshold of 0.17.¹⁴

Relationships between Student Learning Growth and School Variables

	Reading ‘05-06		Math ‘05-06		Reading ‘06-07		Math ‘06-07	
	Estimate	p*	Estimate	p	Estimate	p	Estimate	p
PD on Data Use	0.13	0.010	0.14	0.007	0.14	0.001	0.13	0.006
Instructional Leadership	0.11**	0.000	0.12	0.000	0.17	0.000	0.15	0.000
Instructional Innovation & Improvement	0.20	0.000	0.20	0.000	0.15	0.000	0.16	0.000
Use of the Core Curriculum	0.18	0.000	0.14	0.001	0.13	0.002	0.09	0.040
Collegial Instructional Responses	0.13	0.000	0.11	0.001	0.03	0.510	0.03	0.530
Technology Access and Support	0.15	0.000	0.14	0.000	0.10	0.000	0.08	0.001

*The p-value is the probability that the estimate is simply the result of chance.

** Statistical significance is indicated in bold type.

¹⁴ Christman, J. et al., 2009, p. 41

Not surprisingly, the comparative urban and suburban Philadelphia study found that essentially the same factors as in the chart above were important to improving student achievement, although no quantitative analysis was presented.¹⁵ Further, a large-scale study of 303 California middle schools conducted by EdSource and Stanford University found that several practices, including the extensive use of data, standards-based instruction and curricula; proactive academic interventions; and teacher competencies were strong predictors of student academic growth (0.340-0.290).¹⁶

ANet's comprehensive solution fosters most, if not all, of the practices that researchers found improve student achievement, some with statistical significant and a high magnitude of impact. ANet believes that its model, when studied more rigorously, will yield results that will contribute positively to the body of research supporting the use of interim assessments, finding behavioral changes in teachers and students that improve student learning.

Criteria C: Experience of the Eligible Applicant

Strong performance in implementing projects of similar size and scope

The expansion in the i3 project is a natural step in ANet's growth. The project adds schools in geographies where ANet already works with profiles similar to current schools and will offer the same service model that has produced outstanding results in increasing student achievement.

ANet now serves 89 schools and nearly 18,000 students in six Networks: Massachusetts, Washington, D.C., New Orleans, Newark, Chicago and Ohio. Over 700 math and English teachers administer ANet assessments. ANet estimates that 1400-1700 teachers, including teachers in science, social studies, and other related subjects use the assessments to review student data and incorporate the results into their instruction.

¹⁵ Goertz., M., et al., 2009., CPRE Policy Brief, p. 8

¹⁶ Williams T., et al., 2010, Narrative Report, p. 9, and Appendix C, page 44.

The i3 project will bring ANet services to 120 additional schools over the next four years. Over the past two years, ANet has expanded the number of schools served at an annualized rate of [REDACTED] and the number of students by [REDACTED] executed on time and on budget. ANet also plans to add 58 schools to its networks this coming school year through private funding and school membership fees. Independent of the 120-school i3 project expansion, ANet plans to expand its nascent Newark and Ohio Networks through private funding and school membership fees with [REDACTED], respectively, from 2010-2013. The combined i3 project and non-i3 project growth from the 2010-11 school year over the following three years represents a 27% compound annual growth rate.¹⁷ This is well within historical growth rates that ANet has managed successfully. The i3 project will build on the human capital and relationships already in place in Boston, Washington, D.C., New Orleans, and Chicago. The chart below shows ANet’s growth in schools served:

		Actual				Projected Estimates (not i3)	Projected Estimates (Including i3)		
	Network	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
i3 Networks	MA	12	12	18	28	35	50	50	65
	DC			10	33	55	70	70	85
	LA				10	25	40	40	55
	IL				5	15	30	30	45
Not i3	NJ			5	8	12	15	25	25
	OH				5	5	15	25	25
	Total	12	12	33	89	147	220	240	300

Note: All additions in 2010-11, and all additions to NJ and OH are not part of the i3 project

ANet serves high-need students in a variety of school settings. ANet schools’ populations are majority low-income, with very few exceptions. The average percentage of low-income students in ANet Networks ranges from 65% to 89%. Likewise, all ANet schools are high-

¹⁷ Assumes base of 147 schools in SY2010-11, the addition of the i3 treatment group of 60 schools in 2011-12, other non-i3 organic growth in 2011-13, and the addition of services to the i3 control group of 60 schools in 2013-14

minority, with Network ranges from 83% to 98%. Some ANet schools have a significant number of limited English proficient students, up to 44%, while others do not. All ANet schools serve special education students, with Network ranges from 9% to 18%. One-third of current ANet members are district schools and two-thirds are charter schools.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] credited the implementation ANet’s comprehensive model as the most crucial to helping her high-needs school. As she said, “ANet has also helped my teachers identify gaps in the alignment between our district curriculum and the state standards—we are actively plugging those gaps. I see The Achievement Network as a major lever in our path to proficiency for all [REDACTED] students.”

ANet will offer the same comprehensive solution described in Criteria A, consisting of assessments, coaching and training, and Network services to schools participating in the i3 project. ANet will target and select school partners for the i3 project using the same set of criteria that we developed in building our current Networks. These criteria are outlined in detail in Criteria G. This selection process results in working with schools that serve high-need students that wish to close the achievement gap, and that are ready to undertake a complex, ongoing intervention that uses data to drive instructional action.

Results – Significantly Improved Student Achievement

ANet has produced significant student achievement gains in its Network schools. As discussed in Selection Criteria B, ANet’s matched study results illustrate that its Network schools outperformed their matched peers, and Boston Public Schools (BPS) and the

Commonwealth of MA as a whole, on the 2009 MCAS. [REDACTED]

[REDACTED] ANet schools have posted impressive gains in

student achievement in other Networks as well.

In ANet's first year in DCPS in 2008-2009, schools working with [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The New Orleans Network has already shown promising results in its first year working with

ANet. [REDACTED]

[REDACTED] (*Rubric* contained in Appendix H) to [REDACTED], indicating that schools were

already beginning to implement ANet practices that are associated with student achievement

gains. Preliminary data from the first four assessments this academic year in New Orleans already show a rapid narrowing of the achievement gap between the Network's highest-performing school and the Network average. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The Newark Network also shows preliminary gains in closing its achievement gap this year. The A+P percentage difference between the best performing school and the Network average decreased [REDACTED]

[REDACTED]

This preliminary data in New Orleans and Newark illustrates that, in just the first eight months, ANet assessments, coaching to implement best practices, and learning within Networks have moved all schools upward while beginning to close the achievement gap. The year-end results from MA and DC show that ANet significantly improves student achievement in its member schools over time.

Criteria D: Quality of Project Evaluation

This project evaluation plan was prepared by The Center for Education Policy Research (CEPR) at Harvard University at ANet's request. The i3 program evaluation is designed to answer the following research questions:

- Does ANet have an impact on teacher behavior?
- Does ANet have an impact on the behavior of school leaders?
- Does ANet have an impact on school culture?
- Does ANet have an impact on student achievement?

For each research question, the impact will be estimated using the most rigorous method available to measure the effect of the program above and beyond the outcomes these

participating schools would have achieved without the help of ANet. In particular, the excess demand for ANet services will allow a school-level random assignment design of 120 schools for the evaluation. At random, the evaluators will select 60 schools for full treatment for two years (receiving ANet data, coaching, and Network participation) and 60 control schools that will receive no ANet services for two years.

The evaluation team will collect student achievement data, survey data, implementation data generated by the ANet team, and conduct site visits to each Network to independently examine implementation on the ground. The chart below outlines the specific data to be collected¹⁸:

Data collected	Description	Notes
<ul style="list-style-type: none"> • State Assessment Data 	<ul style="list-style-type: none"> • Individual student performance on state assessments (both for treatment and control schools) 	<ul style="list-style-type: none"> • Core outcome metric for student achievement • Study team will standardize scores to allow for pooling across regions • Student achievement outcomes compared between control and treatment groups
<ul style="list-style-type: none"> • Teacher surveys 	<ul style="list-style-type: none"> • Attitudes towards and use of data in classroom • Awareness, understanding, and evaluation of ANet program components and implementation (treatment only) • School culture • Background information on teacher (e.g., education, experience) 	<ul style="list-style-type: none"> • Baseline surveys given spring before schools are selected into ANet • Small incentive provided to encourage completion • Primary source to measure changes in school culture and teacher behavior and attitudes
<ul style="list-style-type: none"> • Principal/School Leader Surveys 	<ul style="list-style-type: none"> • Attitudes towards use of data by school leadership and in the classroom • Evaluation of ANet program components and implementation (treatment only) • School culture • Background information on school and school leadership 	<ul style="list-style-type: none"> • Baseline surveys given before schools are selected into ANet • Small individual incentive provided to encourage completion • Control schools provided \$1000 to continue participation • Primary source to measure changes in school culture and principal/leadership attitudes and behavior
<ul style="list-style-type: none"> • ANet Implementation Reports 	<ul style="list-style-type: none"> • ANet's own implementation scores (treatment only) 	<ul style="list-style-type: none"> • Scores will be used to determine strength/quality of implementation within treatment group, and whether and which implementation measures correlate with student outcomes and school culture

¹⁸ Data will be collected on both treatment and control groups unless otherwise noted.

		impacts
		<ul style="list-style-type: none"> As this is non-experimental, results will be suggestive, not causal
<ul style="list-style-type: none"> Site visits 	<ul style="list-style-type: none"> 3 treatment schools will be visited per network, per year Schools selected randomly Site visits will be used to examine program components (e.g., observe data coach meetings and classrooms) and hold focus groups to extract specific feedback from teachers 	<ul style="list-style-type: none"> Allows for rich insights into spread of implementation and school-level challenges Allows for calibration of ANet implementation scores with detailed observations by evaluation team

The evaluation will collect baseline measures for all schools in year one, and then measure results of the treatment and control groups over the following two-year control period. Thus, the evaluation will occur over the first three years of the four-year grant, and potentially will extend to year four (2013-2014) using matching funds. [REDACTED]

[REDACTED] As the expansion of sites will take place in regions where ANet Networks already exist, an experienced ANet service team will provide schools with a robust treatment expected to yield impact in the first and second years of implementation. The sample size is conservatively estimated to be sufficient to detect effect sizes of 0.20 standard deviation units or greater at a 5-percent significance level with 80-percent power.¹⁹ Key study activities will occur on the following timeline:

Calendar Year	2010	2011			2012			2013		
Season	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall
Instrument development	[REDACTED]									
Admin Surveys		[REDACTED]			[REDACTED]			[REDACTED]		
Collect Achievement data			[REDACTED]			[REDACTED]			[REDACTED]	

¹⁹ Estimates based on illustrative precision calculations presented in IES-sponsored paper by Peter Schochet. Schochet, Peter Z. Statistical Power for Random Assignment Evaluations of Education Programs. Mathematica Policy Research, Inc. (2005). Quality of baseline data may vary by region, therefore the sample size may be modified in the planning period.

Site visits									
Process data									
Analysis									
Reports									

We note that the large number of schools and regions involved in the proposed evaluation and the ability to conduct a randomized trial will provide a level of evidence about the efficacy of ANet that we believe will be unusual for development studies. Large-scale randomized trials represent the strongest possible research design for ensuring the internal validity of evaluation results. Although the four regions in which the evaluation will be conducted represent a convenience sample based on ANet’s existing programming, the fact that the study will be conducted across multiple school districts will provide a relatively high degree of external validity with respect to the type of school districts with which ANet is most likely to partner. More generally, this rigorous approach will also help to strengthen significantly the now limited research base for using student achievement data to support instructional decisions.

By supplementing the impact evaluation with the collection of rich quantitative and qualitative data on program implementation, the evaluation will also provide a wealth of descriptive information concerning aspects of program implementation that are associated with desired changes in educator behavior, school culture, and student achievement. Although it will not be possible to draw causal conclusions based on these correlations, the information will nonetheless allow ANet and other organizations promoting data-driven instruction to develop

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Criteria E: Strategy & Capacity to Further Develop and Bring to Scale

Capacity for success during the grant period

ANet will reach 120 schools with 25,000 students over the four-year grant period. ANet has begun discussions with new schools to join the Networks to enable quick implementation upon receipt of the i3 grant. Please refer to the MOUs in Appendix A and the Letters of Support in Appendix D to see our school partners. Each Network has more than sufficient unmet need and interest from schools to participate for ANet to reach the targeted number of 120 schools.

[REDACTED]

[REDACTED] Network Managing Directors are already in place for each Network, with the exception of Chicago, an opening which ANet will fill by July 2010. Eight additional DSS will serve the additional 120 schools. ANet utilizes its partnership with Teach for America (TFA) in Boston and Washington, D.C. to recruit coaches. ANet's leadership and back-office infrastructure will not require major reorganization or expansion to achieve the target results, since ANet's program is highly scalable. ANet will add a Project Manager to manage new schools participating in the i3 project and Evaluation Manager to manage the requirements of the randomized trial.

Capacity for Further Scale

The ANet model is highly scalable, as variable costs related to the number of schools, such as paper for assessments, represent only a small portion of overall costs. The majority of costs are relatively fixed for each Network, including trainers, analysts and assessment developers. Thus, beyond Network startup funding, ANet's inherent scalability allows it to further grow its Networks at little marginal cost, financed through school membership fees. The capacity that ANet builds within schools to carry out this work further enables scale without linear growth in

capacity and cost. Network economics are discussed in Criteria F. An i3 grant would allow ANet to expand to new schools by subsidizing the initial costs for new schools to join our Networks.

In addition, ANet will partner with an independent evaluator to carry out a randomized control study, detailed in Criteria D, to test the impact of ANet's approach on student achievement. The CEPR at Harvard University, which assisted in the writing of Criteria D of this document, has expressed interest in conducting this evaluation. This evaluation will provide a rich source of information for ANet to refine its model, building continuous improvement and research capabilities into further expansion to enable further scale.

Ease of Replication

ANet's current [REDACTED] staff possess the resources and expertise to expand its program to new schools in existing Networks. Managing Directors are already in place for almost every Network and ANet has experience hiring the eight additional coaches needed. ANet's success with high-need students in a range of school settings and geographies, detailed in Criteria C, demonstrates the model's ability to be replicated. ANet's unique value proposition, combined with widespread user satisfaction, create high demand among schools to join ANet's program. A recent survey of school leaders and teachers [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Additional evidence of user satisfaction is low school turnover, with almost 100% of member schools returning to ANet year after year. Please see the Letters of Support and Testimonials in Appendix D for more evidence of user satisfaction.

Cost effectiveness

The total cost of ANet's i3 project is \$8.8 million, including \$5.0 million in federal funds.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Costs are detailed in the Budget Narrative.

ANet's data-driven approach provides the "operating system" to develop school leaders and teachers to lead more directly and efficiently, to in turn increase student achievement.

Dissemination

ANet plans to disseminate the results of the i3 project as broadly as possible. We will create a replicable, scalable set of practices for schools that we will share in our annual report, website, educational publications, and at industry conferences. The many organizations with which ANet has relationships, including CEPR, funders, school networks and turnaround organizations, will all aid in dissemination of this information. Dissemination will also occur within Networks, as project results will be shared among Network schools as a matter of course and will extend beyond, as Network schools are part of larger districts or CMOs.

Criteria F: Sustainability

Resources and Support to Sustain ANet i3 Project

Over time, the i3 project will be financially self-sustaining for two reasons:

- As schools build capacity and student achievement improves, ANet reduces the amount of coaching it provides to schools with a commensurate cost decrease
- Membership fees paid by schools replace the subsidy provided through i3 to cover the costs of operating the Networks

[REDACTED]

[REDACTED], as schools build their internal

abilities to carry out effective data practices.²⁰ This mix of decreasing costs and replacing of the initial subsidies- usually provided by private philanthropy- with membership fees has historically worked to make Networks self-sufficient. ANet has built extensive private sector partnerships; both the Michael and Susan Dell Foundation and the Walton Family Foundation have approached ANet to support its need for i3 matching funds (see Dell Letter of Support in Appendix D). [REDACTED]

[REDACTED] with the i3 grant subsidizing the difference between the membership fee and actual costs. Increasing the portion of membership fees paid by schools will replace the i3 grant subsidies. This will coincide with with fewer services and associated costs from ANet as schools' proficiency increases. All of this contributes to sustainability beyond the project.

Expanding the number of schools in our existing Networks increases Network sustainability. Additional fees help cover the fixed costs of assessments, logistical support, coaching and Network events. Adding schools to existing Networks avoids the start-up costs associated with building a new Network, and thus expanding existing Networks through i3 allows ANet to reach more schools than if the grant were used to build new Networks, in addition to providing increased sustainability beyond the length of the grant.

This commitment to sustainability extends to ANet's various stakeholders, with requirements to effectively implement ANet's model outlined in the preconditions of the partner MOUs (see Appendix D). These include obtaining school and district leadership team support, establishing the implementation of ANet as a key priority, and creating the financial capacity to pay for ANet's program in the future. The retention of member schools underscores ANet's commitment to obtaining the support of various stakeholders: of the almost 100 schools served by ANet since

²⁰ Services rather than number of years in program is used to determine price, as school develop at different rates.

its inception, only [REDACTED] have voluntarily left the Network, both of which were high performers that built the capacity to effectively use data.

[REDACTED], strengthening its ability to support schools over time rather than depending on annual philanthropy.

Incorporation of the Project into Ongoing Work

ANet will incorporate the i3 project into ongoing work by:

- Expanding existing Networks
- Incorporating new findings into existing and new Networks
- Sharing findings with partners, such as state departments of education

The schools implementing ANet's model through the i3 grant will become part of and contribute to their respective Networks. Additional schools provide more assessment data for performance comparison within Networks, and thus increase the credibility of the real-time data to school leaders and teachers. More schools also increases the number of examples and lessons from which member schools can learn. Through structured trainings and peer events, ANet will share findings from the evaluation portion of the i3 project.

Beyond ANet-initiated expansion, other organizations are beginning to integrate the ANet model into their work. MA recently named ANet as a preferred vendor for PD for the use of data to increase student achievement. ANet regularly consults with districts such as DCPS and CPS on the use of data to drive improvement, providing further opportunity to share i3 findings.

Criteria G: Quality of the Management Plan and Personnel

Management Plan to Achieve i3 Objectives

ANet's rapid expansion over the last two years has been executed on time and on budget. The i3 project is a continuation of this planned expansion and ANet is prepared to execute at the

same high level. Consistent with past Network member selection to maximize the potential to increase in achievement for high-needs students, ANet will target schools with the following characteristics to expand its Networks:

- Large percentage of high-need students
- School leadership committed to dramatically raising student achievement and open to sharing performance data
- Preliminary support structures in place, such as resources for intervention efforts, an annual calendar for PD, and scheduled time for planning and follow-up meetings
- Commitment to aligning curriculum to state standards.

ANet’s management plan for the i3 project will ensure that project objectives will be achieved on time and on budget. Mssrs. Preston and Maycock will have overall responsibility for the execution of this plan. Please see Criteria D for the high-level Project Evaluation plan.

Milestones	Timeline	Responsibility
Hire Project Manager and Evaluation Manager	August 2010	Ted Preston
Recruit and Select 120 Schools for Cohorts 1 (Treatment) & 2 (Control)	Fall & Winter 2010	ANet Project Manager, Network Managing Directors
Prepare Delivery of Services to Cohort 1 - Select random sample of schools for Cohort 1 (60 schools of the total 120) - Collect baseline data - Prepare program materials - Recruit and train 4 DSS	Spring 2011	ANet Evaluation Manager, John Maycock, ANet Project Manager
Conduct Program Evaluation Orientation for Cohort 2 Schools (60 Schools)	Spring 2011	ANet Evaluation Manager
Begin Providing Services to Cohort 1	Fall 2011	Network Managing Directors, DSS in each Network
Prepare Delivery of Services to Cohort 2 - Collect baseline data - Prepare program materials - Recruit and train 4 DSS	Spring 2013	ANet Evaluation Manager, John Maycock, ANet Project Manager
Review Evaluation Findings -Revise program for Cohort 2 based on evaluation findings	Summer & Fall 2013	ANet Evaluation Manager, ANet Project Manager, Ted Preston
Begin Providing Services to Cohort 2	Fall 2013	Network Managing Directors, DSS in each Network
Publish i3 Program Evaluation Results	Winter 2013	i3 Program Evaluator
Refine and Publish the ANet Model	Winter 2013	Ted Preston
Embed research and evaluation capabilities into the ANet model for further expansion	Winter 2013	John Maycock, ANet Evaluation Manager
Complete second year of services to	Spring 2014	Network Managing Directors, DSS in

Cohort 2 schools		each Network
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Qualifications of Project Manager and Project Personnel

ANet’s leadership has exceptional training and experience managing projects of the size and scope proposed for i3. Ted Preston, ANet’s CEO has led the organization’s rapid expansion since 2008 and will oversee the i3 project. Mr. Preston is the former CEO of an international educational travel company, a graduate of Harvard Business School and a founding board member of one of Boston’s top charter schools. Chief Program Officer and Founder John Maycock will also manage the services delivered under i3. Mr. Maycock is a graduate of the Harvard Graduate School of Education and oversees the development of new Networks and the delivery of key products and services. Additionally, ANet will add two staff to manage the i3 project, one working with the Managing Directors to manage participating schools and another focusing on evaluation. These staff will have experience teaching and closing the achievement gap, and will hold relevant graduate degrees.

Our Network Managing Directors are former teachers in high-performing public schools with a track record in closing the achievement gap and hold Masters degrees in relevant disciplines. All DSS are former teachers with experience in high-performing public schools and many are Teach for America alumni. Our ten Board members are distinguished professionals who contribute their expertise in education, fundraising, law and business. Please refer to Appendix C for resumes of key personnel and biographies of ANet board members.

The CEPR at the Harvard University Graduate School of Education contributed the project evaluation design in this document. The CEPR is interested in serving as ANet’s i3 evaluation partner to conduct the rigorous evaluation detailed in Criteria D. However, ANet will follow all applicable EDGAR procurement regulations in selecting a program evaluator after being selected for an i3 grant.