



The BEACON

News from The Coalition for Excellence in Science and Math Education

Volume XXI, No.1

Queries? email Rebecca Reiss (next page)

Copyright © Jan. 2019

Permission granted to republish articles with attribution

In this issue: President's message, pg.1, Disentangling Test Talk by Lisa Durkin, pg. 2, Beyond More Money: How to Support and Retain Quality Teachers in NM by Dr. Jessica Apgar and Dr. Jesse Chenven, pg 3.

PRESIDENT'S MESSAGE: Ken Whiton

News Flash - We have a new governor! As the song says, "There'll be some changes made."

First things first: The Coalition for Excellence in Science and Math Education (CESE) is a 501c(3) non-partisan organization focusing on education and which policies will be best for New Mexico's students, regardless of political ideology.

CESE is looking forward to working with this new administration. We offer our guidance, informed by 20+ years of in-depth analysis of education in New Mexico. We will be monitoring their actions, policies and programs, ready to praise (we hope) or offer constructive criticism as warranted. We applaud the nomination of Karen Trujillo as Secretary of the Public Education Department and some experienced educators as deputy secretaries.

This issue of The Beacon features the work of three insightful authors, all teachers.

Confused by PARCC, EOCs, Common Core and NGSS? Then Lisa's article, "Disentangling Test Talk," is a must-read.

Lisa Durkin has a Master of Science Teaching degree from New Mexico Tech and teaches science at Valencia High School in Los Lunas. A past president of CESE, Lisa has been involved in education for over 30 years. She described her experience obtaining exemplary status in the [May 2017 Beacon](#) in "How New Mexico's Teacher Evaluation System Translates to the Classroom." In the [Dec. 2017](#)

[Beacon](#), she provided her informed opinion in "Notes from the Trenches, Why we Lose Teachers."

Anyone wanting to improve education in New Mexico should read this article by Jessica Apgar and Jesse Chenven. In, "Beyond More Money: How to Support and Retain Quality Teachers in NM," you will learn where we have progressed, where our system has failed our students, parents and educators, and how to find a path forward

Jessica Apgar, past CESE President, is a teacher educator at Central New Mexico Community College dealing primarily with students in the Alternative Licensure Program on curriculum development and literacy instruction. A dual certified special and general educator who worked with grades 2-5 in Rio Rancho Public Schools for 8 years before attaining her Ph.D. in Special Education with a focus in literacy and educational leadership in 2013.

Jesse Chenven is a teacher educator in K-12 and early childhood education at Central New Mexico Community College, who earned a Ph.D. in Teacher Education, Educational Leadership and Policy from UNM in 2018. His work focuses on providing new teachers with hands-on, research-based tools to sustain engaging and academically rigorous instruction.

If you like the content of this publication and would like to contribute, join or renew membership please do. We have made this process as easy as possible. Search for [CESE.org](#) and select 'Membership Dues' or 'Donate.' Or use the membership form on the back page.

<http://www.cese.org>

The Beacon is published by the Coalition for Excellence in Science and Math Education (CESE). A 501(c)(3) nonprofit corporation, we are incorporated in the State of New Mexico.

Visit our website at <http://www.cese.org>.

BOARD OF DIRECTORS
PRESIDENT
 Ken Whiton
 kwhiton43@icloud.com

VICE PRESIDENT/PRES. ELECT
 Lisa Durkin
 durkinteacher@gmail.com

SECRETARY AND WEBMASTER
 Dave Thomas
 nmsrdave@swcp.com

TREASURER
 Steve Brugge
 s.brugge@yahoo.com

PAST PRESIDENT
 Jesse Johnson
 garand555@comcast.net

MEMBERS AT LARGE

Dr. Jessica Apgar
 dr.jessica.apgar@gmail.com

Cindy Chapman
 HARRISB609@aol.com

Dr. Terry Dunbar
 dunbarabq@gmail.com

Jack Jekowski
 JPJekowski@aol.com

M. Kim Johnson
 kimber@comcast.net

Dr. Rebecca Reiss
 rebecca.reiss@nmt.edu

Marilyn Savitt-Kring
 marilysavitt-kring@comcast.net

BOARD MEMBER EMERITUS
 Jerry Shelton

CESE annual dues are \$25 for individual, \$35 for family, and \$10 for students. Please see back page for membership form.

E-mail Beacon submissions
 to Editor, Rebecca
 Reiss, rebecca.reiss@nmt.edu

Disentangling Test Talk

By Lisa Durkin

On her third day in office Governor Lujan-Grisham eliminated PARCC to the cheers and jubilation of the crowd. Slaying the mighty PARCC dragon is popular these days. Since 2010, the 24 states that once embraced PARCC have winnowed down to five. Of that handful, New Mexico along with New Jersey and Maryland are making other plans for the 2019-2020 school year.

It looks to me as if PARCC was a sinking ship and our new governor ditched the test just when it made the biggest political splash. Even so, there continues to be defenders of PARCC who claim that eliminating the test will only serve to undermine rigorous educational standards that kids in New Mexico must be held to if we are to compete for new industry with a skilled labor pool.

So what is PARCC exactly? What's all the fuss about? It's hard to untangle the dynamics and nuances that surround educational testing, especially if you're not an educator. If we're to make wise decisions concerning our children's education, we need to have a firm grasp on the facts, especially given our poor standing relative to all the rest of the states in the country.

PARCC is the Partnership for Assessment of Readiness for College and Career. It was designed to test what students know, and are able to do in Math and English, according to the unpopular standards called Common Core. Forty-six states initially adopted Common Core but 12 have since withdrawn from the standards. New Mexico is a Common Core state, and that's a good thing, because they are actually good math and English standards. I've been in education for over 30 years, and I've read and taught many, many standards.

The defenders of PARCC are right. Schools need rigorous educational standards and they need to have a test for those standards. New Mexico has always had a standardized test; all states do. It's how we know how well we are educating our kids. PARCC was just a means to test Common Core.

PARCC isn't really the problem. The problem is over-testing. PARCC is long but it isn't what causes over-testing. It's the End of Course Exams (EOCs) that cause over-testing. Students take an EOC for almost every class (even band and art). Additionally, there is a Standards Based Assessment (SBA) for science. All of these tests pilfer instructional time and resources. Since schools and educators are evaluated according to the results, teaching exactly what's on these tests has become an obsessive frenzy.

I suspect that many people don't differentiate between all of the different tests. A kid comes home and complains about having to take another test, and parents blame the wasted instructional time

on PARCC. The constant drum-beat of “you need to know this for the test,” isn’t always about PARCC.

PARCC got a bad reputation early on. It was the first test that had to be given on a computer, a requirement for which most schools were not technically prepared. When technology doesn’t work properly, and 200 students are taking tests on that technology, it’s a nightmare. During the initial days when PARCC was given on computers, a meteor could have blown up the gymnasium, and the administration would have probably missed it because they were too busy restarting servers and implementing new software patches. PARCC is surrounded by controversy for many reasons, but the biggest is because it represents the entire accountability movement, which is highly politicized. It’s sort of a villainous catchall.

What our Governor has proposed is that we use the PARCC test-item bank to craft our own assessment. There are several other states that have gone this hybrid route, and it’s a good idea. The test items are professionally vetted, and our state will save a bundle. Since the Lujan-Grisham transitional team has made the process transparent, I have confidence that it might just be done right.

The real assessment dragons that must be slain, are the EOCs. Every venomous commentary about PARCC is actually true about EOCs. Scheduling EOCs is a horrendous task, and the tests are of inferior quality, which renders their results useless. As a professional educator, I can tell the difference between well-written tests and those that are flawed. Furthermore, students might take EOCs up to three weeks before school is out, and since they serve as final exams, many students don’t have meaningful instruction in those classes for those weeks. The sole purpose for EOCs is to generate student scores in order to evaluate teachers. EOCs have no constructive purpose for students. Worse, since they cover a specific curriculum, teachers must teach to the test. Some of the biggest reasons that teachers leave education is that they have little autonomy and also because of the teacher evaluation system. At a time when hundreds of classrooms lack a certified teacher, eliminating these tests makes good sense.

Another big worry is the test that will assess our state’s new Next Generation Science Standards (NGSS). NGSS represents an innovative teaching methodology that’s difficult to test. Hopefully implementation of NGSS and its assessment will go smoothly. The

industries and careers born of Science and Technology are pivotal for the wellbeing of our people and our economy. We must get NGSS right. We have to.

It’s time to recognize that PARCC was merely an icon for all that was wrong with school-accountability high-stakes testing. We can ensure our students receive a high-quality education when we use testing appropriately. We need to understand the true purpose for standardized tests and use them for the benefit of our students if we are to move our state forward.

Beyond More Money: How to Support and Retain Quality Teachers in NM

by Jessica Apgar and Jesse Chenven

With a new governor at the helm already making decisive changes to positively impact the landscape of public education in New Mexico, there are significant opportunities for meaningful collaboration between the Public Education Department and educators, districts, and schools across our state. Over the past 8 years, the high-stakes nature of the PARCC assessments, in addition to the highly complex and invalid use of Value Added Modeling (VAM) to tie student test scores to individual teacher effectiveness,¹ has brought about a significant shift in the focus of teaching and learning, negatively impacted school culture and climate, and has ultimately changed the educational landscape for teachers and students. Governor Lujan Grisham’s swift decisions to get rid of PARCC testing and to examine the controversial teacher evaluation system make an important statement, one that is reiterated by Lieutenant Governor Howie Morales: “we are sending the message that the Public Education Department is going to be here in support of our schools and our educators across the state.”² But, a lack of clear purpose and poor implementation are often culprits for not meeting even the most well-intended outcomes in education. It is imperative that the new administration consider the efforts and resources that have already been expended on accountability policies (e.g., student assessment and teacher evaluation) and do the difficult, but necessary, work of building capacity and designing processes that will bring about real, sustainable change.

While the messages of support from the Governor’s office suggest a promising change of direction for public educational policy in the state, the Every Student Succeeds Act (ESSA, 2018) still mandates that all states

have in place an accountability plan that includes disaggregated reporting of student achievement scores and the determination of school effectiveness based, in part, on these scores. The new governor and her administration will have to work diligently to prepare a plan for complying with federal law in a way that holds schools accountable for learning while also holding the system accountable to support teachers and students in this endeavor. There are many interrelated issues that will need to be thoughtfully addressed by listening to the voices and valuable expertise of those on the ground; the teachers, students, administrators, and teacher educators who can provide insight into how to implement meaningful changes that will endure for years to come.

Of particular importance is the way in which public education policy can work to support both the retention of teachers in the profession while also providing meaningful and practical mechanisms for improving the efficacy of those teachers. It is not enough to ensure that teacher attrition rates decline in order to address the acute problem of teacher shortages in New Mexico without also exploring mechanisms for ensuring those teachers who remain are effective in their jobs. In this article, we discuss one of the most salient challenges facing our local education systems, the retention, recruitment, and development of effective teachers, and propose ideas for how to use existing structures to maximize resources and support educators as respected professionals.

Teacher Shortages in New Mexico

Addressing the ways in which standardized testing and accountability systems in general have impacted teachers and students is an important step in improving the learning environment in our state. However, in order to truly increase the quality of education in New Mexico, there have to be actual teachers in classrooms who will stick around and be supported professionally to improve their practice. Across the country, many states are facing dire shortages of teachers and New Mexico is no different. In fact, according to the 2018 New Mexico Educator Vacancy Report, there was a significant increase in the number of vacancies for teachers from 2017 to 2018; 264 additional openings.³ This means that an increasing number of students are being educated in less than ideal situations (e.g., increased class sizes, by long-term substitutes, by teachers working on waivers while obtaining certification), and the data suggest this problem is worsening. Decisive action will be required to ensure that teachers will want to stay and teach so that the students of New Mexico receive the equitable, high-

quality education they deserve.

National surveys provide important information about what can be done to address the issues of teacher recruitment and retention. EdWeek reported that 36% of the teachers who responded to their survey said improved pay and benefits would help recruit and keep teachers. Similarly, teachers reported that their decision to stay or leave the profession was most heavily weighted in relation to salary.⁴ It is important to highlight that pay for teachers nationwide, when accounting for inflation, is 5% lower than it was in 2009 and New Mexico teacher beginning salaries are lower than the national average.⁵ The problem of low wages for teachers is something that the state will have to address to ensure stability in the workforce, but money alone is not enough to attract and keep effective teachers in the classroom.

In addition to salary, teachers surveyed have reported that school climate and an environment that provides more professional autonomy, greater respect, and better working conditions are pivotal factors in recruiting and retaining teachers.⁴ This is in line with recommendations made in the New Mexico Educator Teacher Vacancy Report that emphasize the importance of creating an environment that attracts and keeps teachers. The remainder of this paper is dedicated to examining how current frameworks, in particular, NMTEACH, might be used to address these issues and create environments that support the professionalization of teachers through a focus on improved practice. The new administration in New Mexico will have their work cut out for them as they determine how to assess student outcomes in a professionally designed, meaningful way, while remaining in compliance with federal law. While this is happening, the daily work in the classrooms will continue and it is vital that we maximize some of the more useful frameworks we do have in place and put our energy into areas that will positively influence teaching and learning. In addition to student achievement scores, NMTEACH is the other major component of the current teacher evaluation system. While there are certainly some critiques of the associated rubrics and processes, overall they comprise a significantly untapped resource that, if used with teachers in a collegial environment of respect, could help improve instruction and student learning in New Mexico classrooms.

NMTEACH: The Key to Effective Practice and Professionalization?

The NMTEACH rubric was created in response to the dictates of the Race to the Top initiatives that

incentivized states to create teacher evaluation systems that directly tied student outcomes to individual teacher effectiveness. Prior to their adoption statewide, processes for teacher observation and evaluation in New Mexico were not uniform and largely overseen at the district level. While this provided autonomy for schools and districts, there was no accessible, common language for what it meant to be a competent educator in the state. The teacher competencies written into the New Mexico Administrative Code ostensibly identified what teachers should know and be able to do, but these were not tied to the daily work of teachers or evaluation processes. The NMTEACH rubric provided a common framework for delineating what effective teacher practice should look like and how to qualitatively and quantitatively rate it.

The critiques of the NMTEACH rubric are many and include inconsistencies in language and ratings, lack of clarity, and the ways in which it has been deployed and used. It is important to understand, however, that while these appraisals of the tool have merit and should be addressed, the core of the rubric is based on the highly regarded work of Charlotte Danielson. In fact, a cursory look at the NMTEACH rubric and Danielson's Framework for Teaching Evaluation Instrument shows the explicit connections between the two.⁶ Because the Danielson framework is a comprehensive rubric, which delineates and describes all aspects of effective teacher practice, there are benefits for considering how NMTEACH might be improved both as a document and as a process to support the improvement and retention of teachers throughout the state.

For one, Danielson's framework itself is explicitly grounded in an approach to teaching and learning that privileges higher-order thinking, conceptual understanding, and learner-directed educational experiences. It is also informed by a focus on student learning that promotes skills needed for participation in the globalized workforce, developing workers who, "can solve complex problems and design more efficient techniques to accomplish work."⁷ Additionally, it is designed with an eye toward encouraging an educated citizenry with the skills needed to actively participate in the democratic process. Danielson describes the framework as both generic and comprehensive, meaning that it is applicable to any classroom context, while still comprehensively covering all aspects of effective teaching practice.

While there are valid critiques of the NMTEACH rubric as mentioned above, the most salient one, and one that we directly address in this article, regards the ways it

has been implemented. Danielson herself has criticized the use of her rubric and others like it in high-stakes, punitive contexts where such tools are used to check off boxes to the point where the ratings become more important than improvement of practice.⁸ In contrast, numerous studies support the idea that teachers place high value on resources, support, collaboration, and feedback focused on specific instructional strategies that help them to improve their practice.^{9, 10, 11} It is our assertion that given a reevaluation of the process in which the NMTEACH rubric has been used, it is perhaps the single most effective tool for professionalizing teachers, improving practice, reducing educator attrition, and supporting student outcomes.

Although there are variations in practice, the current process for teacher observation and evaluation in schools goes something like this. Teachers receive two formal one-hour observations and a handful of short, informal walkthrough observations by their administrators throughout the entire school year. That is, in a school year consisting of over 1000 hours of instruction, a teacher's observational evaluation is determined by less than 0.5% of actual practice. This evaluation procedure is hierarchical, as the administrative observer is wholly responsible for checking boxes and assigning scores. The process is also detached from a context where teachers might be regarded as competent professionals. It does not support a continuous improvement model whereby a teacher might receive formative feedback and suggestions, address that specific feedback in a short amount of time, and then have the opportunity for further evaluation and feedback. It is also important to understand that evaluations take place in a context that is high-stakes for the teachers. Results on one's teacher evaluation can determine the ability to move between licensure levels, the amount teachers are paid, and even whether someone keeps their job--not to mention the impact it can have on one's sense of professional self-worth and efficacy in the classroom. The implication we are making is not that all teachers are necessarily competent, but rather that the process is skewed such that it does not provide an authentic picture of teacher practice and offers no meaningful mechanisms for teachers to address deficiencies when they do exist. Given the realities of how evaluations are currently used, which promote a focus on quick ratings in snapshot form, it is clear that a shift would also require shifting resources to ensure adequate time to implement more collaborative and longitudinal processes. Legislators, the Public Education Department, and

school districts need to consider how to provide teachers and administrators with the training and time to understand the frameworks for effective teacher practice in place, and then time and training to develop functional communities of practice based on self- and peer-critique within a continuous improvement model.

In thinking about what to do next, it is important to recognize the importance of creating systems that honor teacher knowledge and commitment, while still maintaining high standards for teacher practice. What we have in place is a useful tool, built from a valid instrument that has the potential to positively influence teacher practice and professionalism. Inconsistencies in the instrument itself can be easily remedied. Where the real work needs to be done is in implementing the rubric through the daily work of teachers in ways that support their efforts and promote professionalism. That is, in ways that make them want to engage in the work of improving practice through professional development. When teachers feel like they have a voice, when they feel professionally respected, and when they have the opportunity to actively impact their work with students, we address one of the two major reasons mentioned above that teachers leave the field; creating an environment that supports professional autonomy, greater respect, and better working conditions.

Professionalizing the Profession: Recommendations for Moving Forward

In order to create an environment to attract and keep teachers in the profession, we need to do more than just increase teacher pay. While increased salaries can reduce attrition and entice more individuals into the classroom, money in itself does not ensure that the quality of teachers is maintained or improved. What needs to occur is a shift in the mindset about what purpose teacher evaluation should serve. This means moving away from an approach that prioritizes punitive accountability toward one of collaborative engagement to improve teaching and learning for all students. In contexts such as these that we propose, the impact on students could be significant.^{12, 13} It would mean maintaining high standards for teacher practice, while putting the responsibility and opportunity for meeting those standards in the hands of educators. Below we outline specific policy and practice changes that could make this happen.

From a policy perspective it is important to recognize that while there are many challenges with public education in New Mexico today, there are also many existing structures that can help teachers improve

without recreating the wheel or adding to their workload. We first recommend the Public Education Department make minor revisions to the NMTEACH rubric to address inconsistencies, accessibility, and alignment to Danielson's work. This process, ideally with the input and involvement of teachers, teacher educators, and districts, would not take long at all. Ideally, in fact, the NMTEACH rubric could be conceived as a dynamic document to which minor improvements are made through the process of continuous improvement on an annual basis. Second, the state needs to invest in giving teachers the opportunity to more deeply understand the various elements that comprise the rubric. Professional development that addresses what specific components look like in practice, and opportunities to evaluate their own teaching are essential. Building understanding and a common language about teacher practice across the state is vital and could be initiated through online modules and site-specific workshops.

Next, as a state we need to consider how we can build teacher capacity through the creation of networks of support among teachers. How might we, for example, build an accessible database in which teachers can view sample lessons, videos, and teaching strategies that specifically highlight components of the NMTEACH rubric? How might we connect teachers in communities of practice, both at their schools and beyond, so that they may engage in and reflect on self- and peer-critique? Approaches such as these provide the opportunity for teachers to feel more connected professionally, engage in conversations regarding practice, examine their own teaching, and support professional development in ways that are non-punitive and hierarchical, but still maintain high standards for teacher practice. A very easy way to begin this work within existing structures is by reframing the work of formal communities of practice (often called professional learning committees or PLCs) within schools. That is, we should consider how we might create guidelines for examining the work of ourselves and our peers as teachers, encourage opportunities--or even the expectation--to visit each others' classrooms, and ensure that interactions around frameworks for teaching are not limited to a handful of high-stakes visits each school year. In essence we are suggesting that public policy can have a role in shaping what it actually means to be a dedicated, effective professional in the classroom. In all of this we need to ensure that the discourse between public officials and teachers avoids the hostility and acrimony of administrations

past. It can sometimes be tempting for policymakers to focus on silver bullets that claim to improve teaching practice and ultimately student outcomes (e.g., new curriculum programs; top-down managerial strategies for school leaders; punitive measures of teaching practice, etc.). However, teachers are the greatest asset we have in our drive to improve the education of all students.^{14, 15} As such, we need to invest in keeping them in the profession with consistent and meaningful opportunities to improve in order to meet the high expectations set for their professional practice.

Final Thoughts

Education in New Mexico, and teacher accountability in particular, has been a hot button policy issue for new administrations for at least the past several decades (e.g., three-tiered licensure policy and teacher evaluation with VAM). It is easy for new administrations to build a strong platform on education issues and begin making radical changes that are often well-intentioned, but are politically constructed to make headlines. We implore the new administration to consider the issues facing our teachers and students carefully, recognizing the vast amount of resources, both financial and human, that have been used to create the existing structures. The recommendations we make here are not predicated on the NMTEACH rubric specifically, but are instead about having respected, research-supported expectations for teachers, and implementing them within a framework that involves teachers as professionals and provides them meaningful opportunity for growth. Our recommendations center on building capacity, and to do that, it is wise to build on the work that has already been done and remedy issues with implementation instead of throwing everything out and starting from scratch.

References

1. Martinez, J.F., Schweig, J., & Goldschmidt, P. (2016). Approaches for combining multiple measures of teacher performance: Reliability, validity, and implications for evaluation policy. *Educational Evaluation and Policy Analysis*, 38(4), 738-756.
2. Wilham, T.J. (2019, January 3). Gov. Lujan Grisham brings end to PARCC testing with executive order. KOAT. Retrieved from <https://www.koat.com/article/gov-lujan-grisham-puts-an-end-to-parcc-testing-with-executive-order/25737763>
3. NMSU College of Education Southwest Outreach Academic Research Lab. (2018). New Mexico Educator Vacancy Report. Retrieved from <https://alliance.nmsu.edu/files/2018/10/2018-New-Mexico-Educator-Vacancy-Report.pdf>
4. Viadero, D. (2018, January 23). Teacher recruitment and retention: It's complicated. EdWeek. Retrieved from <https://www.edweek.org/ew/articles/2018/01/24/teaching-shortages-many-answers-for-a-complex.html>
5. Strauss, V. (2018, March 5). How much (or how little) teachers earn - state by state. Washington Post. Retrieved from https://www.washingtonpost.com/news/answer-sheet/wp/2018/03/05/how-much-or-little-teachers-earn-state-by-state/?noredirect=on&utm_term=.fcbba85f13ff
6. Danielson, C. (2014). *The framework for teaching: Evaluation instrument* (2013 ed.). Retrieved from www.thedanielsongroup.org
7. Danielson, C. (2007). *Enhancing professional practice: A framework for teaching* (2nd ed). Alexandria, Va: Association for Supervision and Curriculum Development. ISBN-13: 978-1-4166-0517-1, p.15.
8. Danielson, C. (2016). Charlotte Danielson on rethinking teacher evaluation. *Education Week*, 35(28), 20–24.
9. Greenlee, B. & Brown, J.J. (2009). Retaining teachers in challenging schools. *Education*, 30(1), 96-109.
10. Rhodes, V., Stevens, D., & Hemmings, A. (2011). Creating positive culture in a new urban high school. *The High School Journal*. 94(3), 82-94.
11. Youngs, P., Holdgreve-Resendez, R.T., & Qian, H.(2011). The role of instructional program coherence in beginning elementary teachers' induction experiences. *The Elementary School Journal*, 111(3), 455-476
12. Hollingworth, L. (2012). Why leadership matters: empowering teachers to implement formative assessment. *Journal of Educational Administration*, 50(3), 365-379.
13. Huggins, K.S., Scheurich, J.J., & Morgan, J.R. (2011). Professional learning communities as a leadership strategy to drive math success in an urban high school serving diverse, low-income students: A case study. *Journal of Education for Students Placed at Risk*, 16, 67-88.9.
14. Hattie, J.A. (2009). *Visible learning: a synthesis of over 800 meta-analyses relating to achievement*. London: Routledge. ISBN: 9780415476188.
15. Papay, J.P. (2012). Refocusing the debate: assessing the purposes and tools of teacher evaluation. *Harvard Educational Review*, 82(1), 123-141.

Coalition for Excellence in Science and Math Education
803 Maverick Trail SE
Albuquerque, NM 87123-4308

Return Service Requested



Membership Dues/Donation Form
Coalition for Excellence in Science and Math Education
501(c)(3) non-profit, tax deductible

Member \$25, Family \$35, Student \$10.
Lifetime: Individual \$500, Family \$750
You may contribute through United Way, [PayPal](#), or USPS.
Mail check to: CESE, 803 Maverick Trail SE
Albuquerque NM 87123.
New Membership []

Renewal [] See address label for expiration date
Donation []

Name _____

Mailing Address _____

e-mail _____

Phone _____

Please send change of address to Dave Thomas
<nmsrdave@swcp.com>

A Toon by Thomas

