Using State Data Systems to Report Information on ARTS EDUCATION

Claus von Zastrow
A growing body of research demonstrates the importance of arts education to students’ success in school, life and work. Many states require every school to offer instruction in the arts — which include theater, dance, visual arts, music and media arts — and most require every student to receive arts instruction in at least one grade level.

Yet in most states, the condition of arts education remains an open question: How many students truly have access to arts instruction? How many receive it? Does a student’s gender, race, zip code or family income restrict or expand his or her opportunities in the arts? The scant research that exists at the national and state levels paints a picture of limited and inequitable opportunities. Without better information on what’s happening in their own states, decision-makers are in the dark.

The National Endowment for the Arts (NEA) and Education Commission of the States are tackling this challenge through the Statewide Data Infrastructure Project for Arts Education. Together, they are offering tools and technical assistance to help states extract, analyze and report on data about arts education. The project aims to empower states with the information they need to chart a course toward their goals.

To start, this paper draws on insights from a technical working group of experts in arts education, state data systems and state policy, who met in April 2018 to identify the metrics that would best help states measure progress toward common goals for arts education. Though they understood the challenges of collecting and standardizing data and metrics, members agreed that states can do a great deal in the short term to report critical insights on the health of arts education. Indeed, most statewide longitudinal data systems contain arts education data that never see the light of day.

A major goal of this project is to help states turn mere numbers into metrics that matter for policy and practice in arts education. This paper offers guidance on key arts-education metrics many states could track by using data they already have. It also identifies meaningful metrics states could adopt in coming years.

**Taking Advantage of a Revolution in State Education Data**

The last 15 years have witnessed a revolution in state education data that presents new opportunities for arts education. Between 2005 and 2015, for example, the U.S. Department of Education awarded $721 million to 47 states, the District of Columbia and three U.S. territories to create statewide data systems to measure students’ progress and assess their needs from preschool
As a result, most states can take advantage of up-to-date education data they already collect on every school district, school and student through statewide longitudinal data systems. For example, states that can link individual students to specific course titles and individual teachers can report on enrollments and participation in arts courses, students’ course grades, access to arts teachers and the qualifications of those teachers.

A forthcoming landscape analysis by NEA and Education Commission of the States offers some insights into the data states collect on arts education. It found that:

- Forty-five states maintain a detailed catalogue of arts courses, a fundamental element of a robust arts education data system.
- Forty-three appear to link data on individual students to those course lists, which suggests that they have the data they need to report on student enrollment in specific arts courses.
- Forty-seven states, plus the District of Columbia, collect data on teachers, their backgrounds and the students they teach, suggesting that they have enough data to report on students’ access to qualified arts teachers.
- Every state, plus the District of Columbia, collects data on school and student characteristics, which allows them to see the extent to which gender, race, geography or any number of other factors shape access to education in the arts.

However, states rarely use these data to report useful information about any arts education indicators. The landscape analysis found that 16 states publish information on the numbers or background of arts teachers, and seven states publish information on enrollments in arts courses. Other useful information, such as teacher class sizes or the prevalence of teachers with endorsements in the arts subjects they teach, is rare.

As a result, many states do not gauge progress toward arts education goals they have enshrined in law. Almost every state requires all schools to offer instruction in at least one arts discipline, and 27 require arts courses for high school graduation; yet only seven publicly report any information on arts enrollments.

In some states, arts education advocates are joining forces with state education agency leaders to turn data mined from statewide longitudinal data systems into metrics that can prompt action. New Jersey launched its Arts Education Census Project in 2014, releasing a detailed dashboard showing percentages of students who have access to, and participate in, arts education. This work built on knowledge gained from statewide arts education census studies in 2006 and 2011. Since New Jersey’s effort, other states — including Arizona, California, North Carolina and Wisconsin — have followed suit with their own dashboards.

A new dashboard is forthcoming in New Jersey, and three more states — New York, Ohio, and Tennessee — are preparing to release their first arts education data dashboards in fall 2018. In these states, leaders worked with Quadrant Research to analyze data and produce dashboards.

Each state’s dashboard allows users to explore information at the state, district and school levels. Users can also break data down by specific arts disciplines, students’ access to free or reduced-price lunch (a U.S. Department of Education measure of poverty) and school location, among other categories. The dashboards also present trend data, allowing users to gauge changes in the metrics over time.

Each state’s dashboard reveals that, contrary to state regulations, some students lack access to arts courses. Drawing attention to these gaps is the first step to addressing them.
Identifying Arts Education Metrics to Track

Technical working group members have a vision to make information about arts education easily accessible in every state. A critical early step in realizing this vision is to identify metrics that help states gauge their success in guaranteeing every student an excellent arts education. To identify key arts education metrics that every state should be able to track, the group examined the following questions:

- What information do educators, policymakers, parents and communities need to guarantee every student an excellent arts education?
- How much of this information can states publish by analyzing data they already collect?
- What information might they be able to publish in years to come, if data systems become more robust?

Guided by these questions, technical working group members identified key metrics many states could answer with data they already collect at the state, district and school levels. The group focused on metrics that are most likely to inform decision-making. Such metrics might highlight inequities, for example, or they might lay the groundwork for research on which arts education policies and practices are most effective. These metrics fall under three broad categories:

**Who has access to arts instruction in schools?**

- What percentage of students have access to arts instruction? In states that require universal access, are districts and schools fulfilling the requirement?
- Which of the arts disciplines — dance, theater, music, visual arts or media arts — do these students have access to?
- Is access to education in each of the arts disciplines consistent across grade levels? Do districts offer students a pathway that spans their school careers, so that students who thrive in arts at one grade level can continue taking arts courses in later grades?

**Who participates in arts instruction?**

- What percentage of students participate in arts instruction? In states that require students to take arts courses, are all students fulfilling the requirement?
- What percentage of students participate in instruction in each of the arts disciplines?
- Does participation differ among grade levels?
Each of these key metrics can help states measure progress toward equity, because state data systems typically collect data on student demographic characteristics such as race, gender or economic status, school location and type of school. For example, do students’ gender, race, ethnicity or income affect their access to and participation in arts education? Do rural schools offer the same opportunities as urban or suburban schools? Do students in small schools fare as well as those in large schools? What kinds of arts education opportunities do charter schools provide? How do budget constraints affect access to arts education for different populations?

States that publicly report on these key metrics also provide the information stakeholders need to advance arts education. For example, policymakers who observe gaps in access to arts classes or qualified arts teachers could require schools to offer arts instruction, allocate resources to fill holes in access to arts classes, stiffen certification requirements for teachers of the arts or address shortages of teachers in specific arts disciplines. District or school leaders who notice declines in arts enrollments could revise school schedules to minimize conflicts with other core courses, strengthen arts curricula, integrate the arts more fully into other disciplines or better promote their schools’ arts courses. Parents or students can select schools with rich arts programs or urge their schools to enrich the arts programs they offer. The range of possible interventions is every bit as diverse as the needs they address.

The data that inform these metrics can also fuel tailored research efforts on the impact of arts education. Researchers who link data on arts enrollment to data sets on such topics as school discipline, high school graduation or standardized test scores can explore whether arts education affects student behavior, graduation rates or performance in subjects, such as mathematics or English language arts. If the state is among the 36 that link K-12 to postsecondary data systems, researchers can examine the relationship between participation in K-12 arts education and success in college. If the state is among the 26 that link K-12 to workforce data, researchers may be able to study the impact of K-12 arts education on career outcomes, assuming they have enough years of data to follow individual students from school to career.11

Turning states’ data into insights like these is admittedly not a trivial undertaking. Even states with robust data systems must take time to define and standardize their terms, link data elements from different data sets, remove duplicate records and address any other formatting challenges before they can turn raw data into meaningful information. Without such efforts, however, the data states collect cannot inform policy.
Exploring the Next Frontier for Arts Education Data

Despite nearly two decades of improvement in statewide longitudinal data systems, some key metrics on the condition of arts education data remain out of reach. For example, states lack information on how students are performing in the arts: Fifteen states require arts assessments, and none of those states publicly report the results of those assessments at the state, district or school levels.\textsuperscript{12}

That said, Model Cornerstone Assessments tied to the 2014 National Core Arts Standards have laid the groundwork to help more states develop assessments aligned to standards.\textsuperscript{13} In addition, the Every Student Succeeds Act (ESSA) gives states more opportunities to develop performance-based assessments and incorporate the results of those assessments into school accountability structures.\textsuperscript{14} Time will tell how many states will include the results of arts assessments in their accountability systems. Influential advocates, such as parents or champions of the arts, could spark changes to accountability systems.\textsuperscript{15} ESSA leaves the door open for such decisions in years to come.

States also lack information about spending on arts education, making it difficult to judge the equity and impact of the resources federal, state and local agencies devote to it. Financial transparency requirements in ESSA require states to report how each school has spent federal, state and local funds on personnel and other expenses. Reports could include district- and school-level breakdowns on spending on arts education.\textsuperscript{16}

Additionally, innovative data-sharing agreements with school districts and communities could help states unlock even more insights about arts education. Local education agencies sometimes collect data states do not, such as data on facilities available for visual and performing arts, instructional minutes teachers devote to the arts or the results of principals’ observations of arts teachers. Arts education nonprofits may collect data on access to after-school arts programs or school/community partnerships. In Chicago, for example, Ingenuity’s artLook Map documents not only arts instruction in the public schools, but also those schools’ partnerships with more than 500 arts and cultural organizations that enhance instruction through artist residencies, workshops, performances and other arts experiences.\textsuperscript{17} State arts agencies collect data on who receives their grants to support arts education in or out of schools.\textsuperscript{18} States could produce data-sharing agreements and technical standards for linking all of these types of data to statewide longitudinal data systems.

Such data-sharing agreements are complex and may still be years away in many states. Still, states, districts and communities that find ways to connect their data systems might more effectively share resources, coordinate strategies and deploy help where it is needed most.\textsuperscript{19}

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Improving the Quality of Arts Education Data

States that release information on arts education may find that the underlying data are not entirely reliable. Because states have not typically published information on arts education or used arts education data in their school accountability systems, schools and districts have had few incentives to ensure the data’s accuracy.

Nevertheless, as technical working group members with experience in state data systems noted, public scrutiny of newly reported arts data may well be incentive enough for schools and districts to correct the record and set a reliable baseline for measuring future trends.
Supporting Arts Education Data

STATE LEADERS CAN PROMOTE BETTER INFORMATION ON ARTS EDUCATION.

Review your state’s arts education requirements. Is it living up to its own policies? Most states have codified the principle of universal access to arts education in statutes or regulations. State leaders can adopt metrics to determine whether these principles are being upheld. Arts education metrics gauging access and participation are critical tools to ensure the integrity of a state’s statutory and regulatory requirements.

The Arts Education Partnership’s ArtScan policy database finds that 44 states require arts teachers or specialists to receive endorsements, licensure or certification in one or more arts disciplines. Forty-one states require elementary, middle and high schools to offer instruction in at least one arts discipline. Twenty-seven require arts credits for high school graduation. If your state has any of these requirements on the books, does it have mechanisms to ensure that schools or students are fulfilling them?

Take advantage of your state’s accountability plan. ESSA helps clear the path for better arts education metrics by encouraging states to incorporate multiple measures of school success in their accountability systems. This provision in ESSA aims to foster a well-rounded education, which includes dance, media arts, music, theater, visual arts and other arts disciplines as determined by the state or local education agency. The success of states’ accountability plans will depend on goals and metrics tied to these measures.

Some states have embraced this flexibility. Eleven explicitly include arts education metrics in their accountability systems: Arizona, Connecticut, Georgia, Illinois, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota and Wyoming, plus the District of Columbia. Two more states — Nevada and New Jersey — plan to include arts education in state report cards or education data dashboards. Still others — Ohio and New York — are considering ideas for wrapping arts education metrics into future accountability policies.

Even for states that do not explicitly address arts education in their accountability plans, ESSA may contain incentives to report on arts education metrics. New Hampshire, Oregon and South Dakota do not require arts education indicators, but they do aim to include indicators of a well-rounded education in those plans — thus opening the door for the arts. Still other states — Iowa, Montana, New Mexico, North Dakota and South Carolina — plan to track measures of school climate or culture, which could involve access to arts education.

State leaders do not need to wait for favorable accountability policies before they publish information on arts education. California and Wisconsin produced arts education dashboards even though their states’ accountability plans make no reference to the arts, a well-rounded education or school climate. Still, champions for arts education data are more likely to have the wind at their backs in states whose accountability plans embrace the arts.

Set numerical targets for each metric. Metrics are most powerful when they point toward important and achievable goals. By setting quantifiable targets for arts education metrics, state leaders and other stakeholders can draw attention and resources toward those goals.
For example, many states strive for universal participation in arts instruction at the elementary and middle school levels, so they can formulate their participation metrics accordingly. Metrics on each arts discipline can also help states, districts or schools attend to low enrollments or inequities in specific subject areas.

States that do not require arts for high school graduation cannot compel students to take arts classes, making universal participation an unlikely goal. Parents, educators and policymakers can come together to set ambitious but reasonable enrollment targets for each high school grade.

The process of setting targets for arts education metrics gives policymakers, educators and other community members the opportunity to rally around shared priorities and establish common strategies for meeting them. Advocates for better school report cards have created guides for engaging communities in this critical work.26

**Make the metrics easy to understand and use.** Metrics are of little use if they are not easily accessible or if they appear in unfriendly formats like dense spreadsheets or text files. All states have education report cards featuring key metrics — such as test scores in mathematics, science and English language arts — though a recent Data Quality Campaign analysis finds that many of these report cards are difficult to find or understand.27

State leaders can engage communities, including parents and teachers, about how best to present key metrics described in this report. Which metrics are most important? What kinds of data dashboards are clearest and easiest to navigate? Should different audiences have different views of the data?

Finally, state leaders and their partners can create guides on how to make sense of the metrics and understand their relevance to state and local policy discussions. An example of such a guide is the California Arts Education Data Project’s roadmap for school districts, which leads districts through “the process of examining their data to better understand their unique circumstances and challenges.”28

**Use common education data standards to bolster your arts education data infrastructure.** States that wish to report on key arts education metrics may have to combine incompatible data systems. Each system may use different codes to express the same things — such as course titles or teachers’ subject matter endorsements, for example. Common education data standards create a shared vocabulary, technical specifications and sets of tools to help states overcome such challenges.

Two common standards initiatives are the Common Education Data Standards Project (CEDS) at the U.S. Department of Education and the Ed-Fi Alliance, an initiative funded by the Michael and Susan Dell Foundation.29 The two initiatives, which collaborate to maintain compatible sets of standards, aim to ensure that “myriad [education] systems ... speak the same ‘language’.”30

CEDS maintains data elements and codes for an extensive list of potential arts education metrics. In the realm of arts facilities alone, for instance, it has developed codes for dance studios, two-dimensional art studios, three-dimensional art studios, kilns, photography studios, band rooms, chorus rooms, theaters, music practice rooms and musical instrument storage areas.

By working with common education data standards, states can strengthen protocols and clarify technology standards for arts education data, which may in turn lay the groundwork for other states that wish follow a similar path.
Safeguard students’ privacy. As states’ education data systems have grown, so too has legislative activity to protect students’ privacy. Lawmakers in 49 states introduced more than 500 bills on student data privacy between 2014 and 2018, 94 of which passed into law.31 Any effort to develop new education metrics must ensure that information about individual students never becomes public. Fortunately, resources such as the U.S. Department of Education’s Privacy Technical Assistance Center offer tools and guidance on how to report on powerful education metrics without jeopardizing students’ privacy.32 States can do more than adhere to privacy policies. They can build public trust and support by clearly describing the data they collect, why they collect it, who has access to it and how they plan to use it.

Next Steps for the Statewide Data Infrastructure Project for Arts Education

One of the most important education reform stories of the past two and a half decades has been about data. Prompted by federal law and their own school reform agendas, states have measured progress and shortfalls, opportunities and inequities. State data systems have illuminated successes and areas of persistent need, guiding states’ efforts to make good on the American ideal of equal opportunity. Arts education has been mostly untouched by this data revolution so far, but states’ longitudinal data systems offer the prospect of change.

The project gives states tools to help them fulfill the promise of this data revolution. Through reports, toolkits, technical assistance and broad outreach efforts, the initiative aims to help state policymakers and education leaders make the case for better arts education information, engage the public in defining shared goals and clear metrics, and report actionable information on arts education.

TECHNICAL WORKING GROUP MEMBERS

The group consists of leading experts on arts education and state education data systems:

**Narric Rome**, Vice President, Government Affairs and Arts Education, Americans for the Arts (Chair)

**Jeremy Anderson**, President, Education Commission of the States

**Jane R. Best**, Director, Arts Education Partnership, Education Commission of the States

**Mike Blakeslee**, Executive Director, National Association for Music Education

**David Dik**, National Executive Director, Young Audiences Arts for Learning

**Brent Engelman**, Director, Education Data and Information Systems, Council of Chief State School Officers

**Ayanna Hudson**, Director, Arts Education, National Endowment for the Arts

**Dennis Inhulsen**, Chief Learning Officer, National Art Education Association

**Sunil Iyengar**, Director, Office of Research and Analysis, National Endowment for the Arts

**Paige Kowalski**, Executive Vice President, Data Quality Campaign

**Susan Mc Greevy-Nichols**, Executive Director/CEO, National Dance Education Organization

**Julie Palkowski**, Past President, State Education Agency Directors of Arts Education

**Jim Palmarini**, Director, Educational Policy, Educational Theatre Association

**Steven Shewfelt**, Director, Data and Research, Ingenuity, Inc.

**Nancy Smith**, CEO and Principal Consultant, DataSmith Solutions

**Ryan J. Stubbs**, Research Director, National Assembly of State Arts Agencies
ENDNOTES


12. “ArtScan,” Arts Education Partnership.


AUTHOR

Claus von Zastrow is principal of statewide longitudinal data systems at Education Commission of the States, where he works on state education data and STEM education policy. He lives with his family in Washington, D.C. Contact Claus at cvonzastrow@ecs.org or 202.844.6282.

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