Extracurricular and Cocurricular Student Activity Accountability Indicator Study

A report to the 88th Texas Legislature from
the Texas Education Agency

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Submitted to
the Senate Committee on Education,
the Senate Committee on Higher Education,
the House Committee on Public Education, and
the House Committee on Higher Education

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Contents

Executive Summary 1

House Bill 22 1

Requirements for the Extracurricular and Cocurricular (ECC) Student Activity Accountability Indicator Study 1

Overview of ECC Student Activity Accountability Indicator Study Outcomes 1

Overview of the ECC Student Activity Accountability Indicator Study 2

Guiding Ideas of the ECC Project 2

Defining Questions for Feasibility Study 2

Evaluating ECC Student Activity Indicator Feasibility 3

An ECC Student Activity Indicator can meet Federal and State Accountability Requirements 3

ECC Participation Positively Impacts Student Outcomes 4

National Research 4

Results of Texas ECC Data Analysis 4

Key Elements for ECC Student Activity Implementation 6

Dimensions of Participation 7

Analysis of Impact of School Finance Structure on Equity of Implementation 7

Summary & Conclusion 8

Next Steps for ECC Student Activity Indicator Implementation 8

Five-Year ECC Student Activity Indicator Phase-in Estimated Costs 9

Conclusion 9

Appendix A: Acknowledgements 10

ECC Advisory Committee 10

Technical Advisors 12

TEA Staff 13

Appendix B: Literature Review 14

Appendix C: Every Student Succeeds Act School Quality or Student Success Indicator Findings 15

Appendix D: Texas ECC Data Summary 16

Analysis of ECC Longitudinal Data 16

Longitudinal: Grades 3–8 16

Longitudinal: Grades 9–12 19

Part 2: Analysis for ECC Single-Year Data 21

Executive Summary

The information in this report is based on the outcomes of the Extracurricular and Cocurricular Student Activity Accountability Indicator Study as of November 2022.

House Bill 22

House Bill (HB) 22 (85th Texas Legislature, 2017) charged the commissioner of education with studying the feasibility of incorporating for evaluating school district and campus performance under this subchapter an indicator that accounts for extracurricular and cocurricular student activity.

Requirements for the Extracurricular and Cocurricular (ECC) Student Activity Accountability Indicator Study

The bill requires the commissioner to report to the legislature no later than December 1, 2022, on the feasibility of incorporating an extracurricular and cocurricular student activity indicator unless the commissioner adopts an indicator under this section by this date. This report fulfills that requirement.

Overview of ECC Student Activity Accountability Indicator Study Outcomes

Based on the information and data collected during the ECC study, the ECC Advisory Committee believes that an ECC student activity indicator has the potential to meet accountability requirements, would yield additional positive outcomes for students, and can build on existing processes, such that implementation may be possible within five years. The study found that standing up new data collection processes takes significant time and effort for campuses and districts, including extensive training, collection processes, and stipends to support the additional time required from district staff essential for successful implementation. Should legislators wish to proceed with a change to incorporate an ECC indicator into accountability, the legislature would need to fund a five-year ECC student activity indicator phase-in plan.

The five-year phase-in would collect additional data using the proposed ECC Performance Standards to confirm the impact of the indicator design and refine the methodology and supporting materials. This timeline also allows the necessary time to develop and launch a new Public Education Information Management System (PEIMS) element to collect sufficient statewide data for modeling and provide districts and regional education service centers (ESCs) sufficient time to prepare for implementation. The phase-in would ensure all district and ESC staff have the training and data knowledge necessary to implement an ECC student activity indicator with fidelity. The estimated cost of the five-year ECC student activity indicator phase-in is $66.9 million. The estimated annual costs following the phase-in are $30.8 million, although there may be additional school finance implications as described in the school finance section, below.

Overview of the ECC Student Activity Accountability Indicator Study

An ECC Advisory Committee was established in July 2019 to assist TEA with the feasibility study. The committee was composed of 29 members including 14 district staff, 13 staff from ECC-related organizations such as the University Interscholastic League (UIL), one regional ESC staff member, and one member-at-large. (See Appendix A.) To evaluate the feasibility of including an ECC student activity indicator in the state's academic accountability system, the committee members reviewed peer-reviewed research, examined current data from state and local sources on student participation, participated in facilitated work sessions, and collected feedback on program design from colleagues in their respective organizations. From the beginning of their work, the committee identified key ideas to guide the work and defined questions to establish the scope of the project.

Guiding Ideas of the ECC Project

As the committee explored the feasibility of an ECC student activity indicator, the following ideas were consistently identified as essential to guide the work:

- To the extent that the state accountability system provides a clear picture of state priorities for student performance and sets a rigorous standard for student performance in those priority areas, inclusion of ECCs could expand the scope of desired student outcomes, broaden the definition of expected campus and district performance, and send a clear message about the importance of participation for all students.
- Research has confirmed the impact of student participation in ECC activities not only for additional benefits to student outcomes but also for the many intangible benefits not always easily captured through quantitative research.
- Providing options for student ECC participation enables students to explore different areas and match preferences to find those activities that spark student interest and encourage high levels of engagement. Throughout their work, the committee carefully weighed the possible impact of various ECC participation criteria while taking into consideration the diversity of district types and access to ECC activities to ensure that an ECC student activity indicator, if adopted, is viable for all districts in the state.

Defining Questions for Feasibility Study

Charged with exploring the feasibility of an ECC student activity indicator, the committee focused on three criteria to define the scope of their work: relevant regulations, potential for efficacy, and viability of implementation. Building on these criteria, the committee's work centered around these defining questions:

- Can an ECC student activity indicator meet state and federal accountability requirements?
- What is the potential impact of an ECC student activity indicator on student performance?
- What are the keys to successful ECC implementation, and what is the current state of readiness relative to these elements?

Based on the information and data collected in response to these questions, the committee believes an ECC student activity indicator can meet accountability requirements, would yield additional positive outcomes for students, and can build on existing processes such that implementation may be possible within five years. In summary, the committee found it feasible to incorporate ECC into accountability and

recommends continued investment in the ECC activity initiative to complete the necessary supports for a potential launch in state accountability no sooner than the 2027–2028 school year.

Evaluating ECC Student Activity Indicator Feasibility

An ECC Student Activity Indicator Can Meet Federal and State Accountability Requirements

The Elementary and Secondary Education Act (ESEA), as amended by the Every Student Succeeds Act (ESSA), requires accountability plans to include a minimum of five indicators: proficiency on assessments, growth in proficiency or another academic indicator, high school graduation rates, emergent bilingual progress toward proficiency, and a fifth school quality or student success (SQSS) indicator.

ESSA requires that all accountability system indicators be:

- Measured annually for all students and for each subgroup
- Able to provide meaningful differentiation between schools
- Based on the long-term goals in the state plan, where appropriate
- Included in state and district report cards

ESSA requires SQSS indicators to be valid, reliable, and comparable measures within each state's accountability system and be given less than substantial weight in accountability calculations. The intent is for an SQSS measure not to obscure identification of schools for federal improvement interventions. States have statutory flexibility when selecting an SQSS indicator.

In addition to the general requirements, ESSA regulations clarify that SQSS indicators:

- must be supported by research indicating that high performance on such measures is likely to increase student learning or student achievement or growth (efficacy potential);
- must be a separate indicator from other indicators the state uses in its accountability system; and
- may include student engagement, educator engagement, student access to and completion of advanced coursework, postsecondary readiness, school climate and safety, or any other indicator the state chooses that meets the requirements.

Currently no other states have incorporated an accountability indicator with a comparable measure of student ECC participation in an approved ESSA accountability plan. A list of related SQSS indicators from other states is provided in Appendix C.

In conjunction with the ESSA accountability requirements, TEA has guiding principles for the state academic accountability system: rigor in the system, transparency for the public, and fairness for all schools. These guidelines are aligned with the purposes and roles of the state academic accountability system: to improve student outcomes and opportunities, identify best practices for comparison and study, and facilitate collaboration among educators. The accountability guidelines focus on providing accurate and actionable data to drive change and meet continuously improved goals for children in accordance with state and federal statute.

The committee reviewed the ESSA and TEA guidelines and found that an ECC student activity indicator has the potential to meet the specified requirements.

ECC Participation Positively Impacts Student Outcomes

The committee focused on reviewing available information regarding the potential impact of ECC student activity to confirm that a proposed ECC student activity indicator would be supported by research on the potential efficacy on student outcomes.

National Research

A literature review of rigorous peer-reviewed research found compelling evidence that student participation in ECC activities correlates with improved student outcomes in several areas.

- ECC participation is associated with higher test scores (Covay and Carbonaro 2010; Feldman and Matjasko 2005; Fredericks and Eccles 2006, 2010; Marsh and Kleitman 2002; Morris 2015).
- ECC participation is associated with increased likelihood of college attendance (Barber, Eccles, and Stone 2001; Gardner, Roth, and Brooks-Gunn 2008; Mahoney, Cairns, and Farmer 2003; Morris 2016).
- School-based ECC activities were more beneficial than out-of-school activities; the most beneficial ECCs included both non-academic activities (sports, student government, school publications, and performing arts) and academic activities (H. Marsh and Kleitman 2002).
- ECC participation benefits socioeconomically disadvantaged students as much as or more than non-disadvantaged students (H. Marsh and Kleitman 2002).
- ECC participation fosters school identification and commitment that benefits diverse academic outcomes, particularly for socioeconomically disadvantaged students who may be less well-served by the traditional educational curriculum (H. Marsh and Kleitman 2002).
- Consistent participation throughout elementary and high school has a significant relationship with academic achievement in high school (Crosnoe, Smith, and Leventhal 2015).
- Participation for two or more years is correlated with participants having higher grades, more positive attitudes toward school, and greater academic aspirations than those of nonparticipants (Darling 2005; Darling, Caldwell, and Smith 2005).
- Students who participated for two or more years doubled their likelihood of attending a postsecondary institution as compared to students with zero to one years of participation and were 78 percent more likely to complete a postsecondary degree than students with one year of participation (Gardner, et al. 2008).
- ECC participation is positively associated with postsecondary volunteering and voting; two-year intensive participation in school-sponsored activities is positively associated with full-time employment and income (Gardner, et al. 2008).

A detailed list of the research reviewed is included in Appendix B.

Results of Texas ECC Data Analysis

As TEA does not collect student ECC participation data in the current statewide data collection, the ECC Advisory Committee created a voluntary ECC data collection process to gather preliminary ECC data. In addition to the usual challenges associated with gathering valid and reliable data, attempting to collect comparable and accurate ECC data during a pandemic was a unique challenge. As Texas educators did in so many areas throughout the pandemic, the districts that voluntarily submitted ECC data for this project went above and beyond. Without their efforts, this work would not have been possible.

It is estimated that it takes approximately four hours of training and planning time to onboard each ECC district, campus, and activity sponsor. At the start of each subsequent year, about two hours of refresher training is needed. Once a district has established ECC systems, an activity sponsor needs a dedicated one to two hours of time, either weekly or monthly, to focus on maintaining ECC data. The activity ECC coordinator needs two to four hours at the middle and end of the year to submit ECC data to their campus ECC coordinator, who in turn needs two to four hours to compile campus data for submission to the district ECC coordinator. The district ECC coordinator needs approximately eight to 12 hours to review and submit ECC data to PEIMS.

Although the data gathered are appropriate for the analysis conducted and provide reliable data for evaluating the feasibility of including ECC, additional program-specific data are required to evaluate ECC student activity indicator methodology options and run further data modeling. Despite these challenges, the ECC Advisory Committee gathered a data set that is nationally recognized as exceptional in this area of study, which serves as further confirmation of the outstanding work of the districts who volunteered to participate in the ECC Student Activity Accountability Indicator Study.

The preliminary ECC data collection served two purposes: to provide a better understanding of current Texas ECC participation trends to inform further collections and to field test ECC student activity indicator materials developed in response to the ECC student activity study.

Since the launch of the ECC student activity study in summer 2019, the ECC data collection process has received single-year student ECC participation data from nine districts in six regions, with over 300,000 individual student records of ECC participation in grades 3–12. Additionally, the Dallas Independent School District (ISD) shared three years (2016 to 2019) of longitudinal student participation data from the district's local ECC initiative. As a result of the robustness of the data collected, Texas ECC data were available to provide insight into two key research questions identified by the committee to better understand the potential impact of an ECC student activity indicator on outcomes for Texas students:

1. To what extent does student participation in ECC activities appear to align/correlate with improved student outcomes?
2. How does student ECC participation vary by district type and student demographics?

For research question one, analysis of the Dallas ISD longitudinal data was conducted by Dr. Jing Liu of the University of Maryland and evaluated the impact of each increase in student participation, including half- and whole-year participation by activity. Key findings from this analysis indicate the following:

- For grades 3 –8, small positive and statistically significant effects on attendance and discipline for all students, with comparable effects for at-risk and economically disadvantaged (Eco-Dis) students
- For grades 9 –12, medium-sized positive and statistically significant effects on attendance for all students and for at-risk and economically disadvantaged students
- For grades 9 –12, small positive and statistically significant effects on discipline for all students and for economically disadvantaged students
- For grades 9 –12, medium-sized positive and statistically significant effects on academic outcomes in ACT Math score, ACT English score, SAT Math score, SAT EBRW score, and meeting AP/IB criteria for all students, with a comparable level of positive impact for at-risk and economically disadvantaged students

See Appendix D for more information.

The rigorous analysis of this data provides a high level of confidence that the perceived differences in outcomes are attributable, at least in part, to student ECC participation. These findings align with the outcomes identified in the national research studies reviewed by the committee.

For research question two, agency staff analyzed single-year district data from school years 2019 to 2022 to identify participation trends, such as percentage of students participating in one or more ECC activities and campus-level ECC participation rates for economically disadvantaged students in comparison with the overall percentage of economically disadvantaged enrolled on the campus. This analysis acknowledges that ECC participation was impacted by the pandemic at varying degrees within the three-year window. Two of the districts providing ECC data have already included an ECC student activity indicator as part of their Local Accountability System (LAS) Plan which provided an additional opportunity for evaluation of systemic emphasis on ECC participation. Key findings from this analysis indicate the following:

- In districts without an ECC initiative, overall student participation in ECC activities ranged from 42 to 90 percent, compared to 98 to 100 percent participation in districts with an ECC initiative.
- On campuses without an ECC initiative, there was a gap between the percentage of economically disadvantaged students enrolled and the percentage of economically disadvantaged students reported as participating in ECC activities. For most campuses, the gap was 40 percent or greater.

See Appendix D for more information.

Taken together, the findings from the two key research questions provide two important takeaways:

- Most if not all Texas students would likely benefit from ECC participation.
- Without an ECC initiative, student participation in ECC activities will likely continue to vary greatly by district, and participation by economically disadvantaged students will likely continue to be disproportionately lower.

Although the current Texas data are compelling, additional data are necessary to complete the data modeling required prior to introducing a new indicator to the state academic accountability system. An additional data collection, if implemented, would also provide an opportunity to examine research-based high impact dimensions of participation to maximize ECC impact for all students.

Key Elements for ECC Student Activity Implementation

For accountability, an indicator must provide accurate and actionable data to allow for meaningful differentiation and drive change. Embedded in these guidelines is an expectation for valid, reliable, and comparable data from all participants.

Given the variety of ECC activities available to students across the state, the committee identified the ability to measure comparable participation across districts as an issue that must be addressed before implementing an ECC student activity indicator. The committee also recognized that Texas is fortunate to have several robust organizations sponsoring ECC-related activities, such as the University Interscholastic League (UIL), Texas Music Educators Association (TMEA), and Texas FFA Association (TX-FFA), that provide a level of consistency for student participation and competition across the state. These well-established, rigorous statewide systems provided the foundation for the preliminary student participation data

collection and can support the continuing work on developing proposed performance standards for additional ECC activities.

The review of national ECC research revealed both the impact of ECC participation and, equally as important, aspects of participation that contribute to the additional benefits students receive from those experiences. Overall, researchers identified six aspects used to better define ECC participation and understand the alignment between ECC participation and student outcomes. Of these six dimensions of participation (listed below), the four underlined dimensions were found to more highly correlate with increased impact on student outcomes. In short, these dimensions are what makes ECC positively impact students.

Dimensions of Participation

- Sponsorship (school versus community)
- Duration (participation over time)
- Intensity (hours within a given period)
- Frequency (days within a given period)
- Breadth (number of different types of activities)
- Engagement (active involvement)

These dimensions also provided the committee with a framework of high-impact aspects to utilize as a basis for developing performance standards aligned with maximizing the impact of ECC participation. Additionally, with the supporting research establishing the predictive validity of these dimensions to increase student outcomes, incorporating these aspects also supports the anticipated validity and reliability of an ECC student activity indicator.

Building on the consistent statewide systems and these key dimensions, the committee crafted performance standards for the most common ECC activities. The performance standards define qualifying participation for each ECC activity based on the key dimensions of duration, intensity, and engagement and are customized by both grade span (grades 3–5, 6–8, 9–12) and activity category. The proposed ECC Performance Standards ensure comparable data across districts and move the measurement beyond a simple Yes or No to provide differentiation in participation data.

In conjunction with the ECC Performance Standards, the committee also created campus and district training materials and other implementation resources. The committee made refinements to these materials and the process design based on stakeholder feedback. These materials provide a notable first step; the next step is a field test of these designs.

Analysis of Impact of School Finance Structure on Equity of Implementation

The foundation school program for maintenance and operations provides funding in two tiers. Tier one, supported by the basic allotment, provides funding for school districts to deliver a basic program of education rated acceptable or higher and to meet other applicable legal standards (special education programming, for example). (See Section 48.002, Education Code.) Tier two provides funding for districts to supplement the basic program at the level of their own choice. (See Section 48.201.) This is accomplished by a district's decision to levy up to 17 cents for tier two purposes. (See Section 45.003(e).)

Tier one of the foundation school program ensures similarly situated districts receive the same level of funding for the same level of tax effort. (See Sections 48.266(c) and 48.257(a).) Tier two guarantees the yield of pennies of tax effort. For the first eight cents, districts are guaranteed revenue at the 96th percentile of wealth per weighted student. (See Sections 48.202(a-1) and 48.257(d).) For the remainder of tier two tax effort, districts receive a guaranteed yield and may not raise local revenue in excess of that guaranteed yield. (See Section 48.257(f).)

As their name suggests, extracurricular and cocurricular activities fall outside the basic program; therefore, these activities likely receive a substantial amount of their funding under tier two. This supplemental funding is small compared to tier one and is less equalized. Implementing an accountability indicator for items outside the basic program may raise concerns that districts lack equal footing in being able to meet the accountability expectations of the state.

If the state pursues use of an ECC indicator, thought should be given to the expectations of funding sources to ensure equitable access to implementation of programs that satisfy the objectives of the indicator.

Summary & Conclusion

In summary, with the support of appropriate funding allocated by the state, it is feasible to implement, tentatively within five years, an ECC student activity indicator, which has the potential to positively impact student outcomes in academics, attendance, and discipline. To move towards implementation, additional data needs to be collected, using the proposed ECC Performance Standards, to confirm the impact of the indicator design and refine the methodology and supporting materials. This timeline also allows the necessary time to develop and launch a new PEIMS element to collect sufficient data for modeling and provide districts and ESCs sufficient time to prepare for implementation.

Next Steps for ECC Student Activity Indicator Implementation

Building on the progress to date, funding for a five-year ECC student activity indicator phase-in would be necessary to implement an ECC student activity indicator into the state's academic accountability system. Next steps are:

- Gather additional ECC data and stakeholder feedback on the proposed ECC Performance Standards and support materials via district implementation to field-test and refine prior to potential statewide implementation.
- Contract with a research facility to study the reliability and validity of the field-test data and provide recommendations for implementation.
- Develop and launch a rigorous statewide data collection system, such as PEIMS, to provide sufficient data to develop implementation methodologies and model the corresponding data.
- Coordinate with U.S. Department of Education staff for approval of proposed ECC student activity indicator.
- Work with TEA and ESC staff to disseminate technical guidance and training on ECC implementation to districts.
- Develop agency data quality and monitoring processes to ensure ECC data reported by districts is valid, reliable, and supported locally with sufficient, auditable documentation.

Five-Year ECC Student Activity Indicator Phase-in Estimated Costs

School Year	Stage	District (Stipends)	ESC (FTE)	TEA	Yearly Total
2023–2024	Phase-in Year 1 (~8 districts)	$60,000 to $120,000/district ($720k)	$25,000/per ESC ($100k)	3 FTEs $342,651	$1.16 million
2024–2025	Phase-in Year 2 (~8 districts)	$60,000 to $120,000/district ($720k)	$25,000/per ESC ($100k)	3 FTEs $327,786	$1.15 million
2025–2026	Phase-in Year 3, Research Study, &and PEIMS Build (~24 districts)	$60,000 to $120,000/district ($2.1 million)	$25,000/per ESC ($100k)	3 FTEs $327,786	$2.53 million[1]
2026–2027	Statewide Phase-in Year 4 &and PEIMS Launch *(~1,200 districts)*	Average $25,000/district ($30 million)	$25,000/per ESC ($500k)	3 FTEs $327,786	$30.83 million[2]
2027–2028	*Statewide Phase-in Year 5 &and Data Modeling (~1,200 districts)*	Average $25,000/district ($30 million)	$25,000/per ESC ($500k)	3 FTEs $327,786	$30.83 million[2]
				Contracted Research Study	$400,000
				Five-Year Phase-in Total	$66.9 million
				Ongoing Annual Costs	$30.8 M

[1] For 2025–2026, expand the phase-in to triple the number of then-participating districts.

[2] For 2026–2027 and beyond, expand the phase-in statewide to all districts and ESCs. A significantly reduced stipend amount is budgeted for districts while expanding ECC to all ESCs, providing no additional funding per ESC, assuming a data collection tool is made widely available for all districts to use at no additional cost.

Conclusion

As schools continue to grow in response to the challenges before them, the time has also never been better to move forward with an ECC student activity indicator. The impact of student ECC participation goes well beyond improved outcomes. ECC participation encourages students to build connections with classmates, coaches and mentors, and the larger community. ECC also helps students build skills to make a living and to make a productive and satisfying life.

Famous cellist Pablo Casals said:

> …And what do we teach our children?
> We teach them that two and two make four, and that Paris is the capital of France.
> When will we also teach them what they are?
> We should say to each of them: Do you know what you are?
> You are a marvel. You are unique.
> In all the years that have passed, there has never been another child like you.
> You have the capacity for anything. Yes, you are a marvel.
> And when you grow up, can you then harm another who is, like you, a marvel?
> You must work, we must all work, to make the world worthy of its children.
>
> (*Pablo Casals.* Fundació Pau Casals. Retrieved November 17, 2022, https://www.paucasals.org/en/biography/).

ECC helps students discover their interests and talents, inspires them to set ambitious goals, and equips them to achieve dreams as big as Texas.

Appendix A: Acknowledgements

ECC Advisory Committee

Many people contributed to the work of the ECC Student Activity Accountability Indicator Study. The project staff wish to thank these individuals for their expert advice and assistance. Members are listed in alphabetical order by last name.

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Appendix B: Literature Review

The ECC Advisory Committee reviewed the following rigorous, peer-reviewed research.

Barber, Bonnie L., Jacquelyn S. Eccles, and Margaret R. Stone. 2001. "Whatever Happened to the Jock, the Brain, and the Princess? Young Adult Pathways Linked to Adolescent Activity Involvement and Social Identity." *Journal of Adolescent Research* 16(5):429–55.

Covay, Elizabeth, and William Carbonaro. 2010. "After the Bell: Participation in Extracurricular Activities, Classroom Behavior, and Academic Achievement." *Sociology of Education* 83(1):20–45.

Crosnoe, Robert, Chelsea Smith, and Tama Leventhal. 2015. "Family Background, School-Age Trajectories of Activity Participation, and Academic Achievement at the Start of High School." *Applied Developmental Science* 19(3):139–52.

Darling, Nancy. 2005. "Participation in Extracurricular Activities and Adolescent Adjustment: Cross-Sectional and Longitudinal Findings." *Journal of Youth and Adolescence*, Vol. 34, No. 5, October 05, pp 493 –505.

Darling, N., Caldwell, L. L., & Smith, R. (2005). "Participation in school-based extracurricular activities and adolescent adjustment." *Journal of Leisure Research* 37:51–76.

Feldman, Amy, and Jennifer L. Matjasko. 2005. "The Role of School-Based Extracurricular Activities in Adolescent Development: A Comprehensive Review and Future Directions." *Review of Educational Research* 75(2):159–210.

Fredricks, Jennifer A., and Jacquelynne S. Eccles. 2006. "Is Extracurricular Participation Associated with Beneficial Outcomes? Concurrent and Longitudinal Relations." *Developmental Psychology* 42(4):698–713.

Fredricks, Jennifer A., and Jacquelynne S. Eccles. 2010. "Breadth of Extracurricular Participation and Adolescent Adjustment Among African-American and European-American Youth." *Journal of Research on Adolescence* 20(2):307–33.

Gardner, Margo, Jodie Roth, and Jeanne Brooks-Gunn. 2008. "Adolescents' Participation in Organized Activities and Developmental Success 2 and 8 Years after High School: Do Sponsorship, Duration, and Intensity Matter?" *Developmental Psychology* 44(3):814–30.

Mahoney, Joseph L., Beverley D. Cairns, and Thomas W. Farmer. 2003. "Promoting Interpersonal Competence and Educational Success through Extracurricular Activity Participation." *Journal of Educational Psychology* 95(2):409–18.

Marsh, Herbert W., and Sabina Kleitman. 2002. "Extracurricular School Activities: The Good, the Bad, and the Nonlinear." *Harvard Educational Review* 72(4):464–514.

Morris, David S. 2015. "Actively Closing the Gap? Social Class, Organized Activities, and Academic Achievement in High School." *Youth & Society* 47(2):267–90.

Morris, David S. 2016. "Extracurricular Activity Participation in High School: Mechanisms Linking Participation to Math Achievement and 4-Year College Attendance." *American Educational Research Journal* 53(5):1376–1410.

Marsh, Herbert W., and Sabina Kleitman. 2002. "Extracurricular School Activities: The Good, the Bad, and the Nonlinear." *Harvard Educational Review* 72(4):464–514.

Appendix C: Every Student Succeeds Act School Quality or Student Success Indicator Findings

The ECC Advisory Committee found five states with ECC SQSS indicators approved in their ESSA state plans. This appendix provides a summary of those states' ECC-related SQSS indicators.

1. **Connecticut:** *Arts Access*
   Percentage of students in grades 9 through 12 participating in at least one dance, theater, music, or visual arts course in the school year (high schools)

2. **Illinois:** *Fine Arts Indicator*
   Measurements of student participation, instruction quality, and student voice (elementary schools/middle schools/high schools)

3. **Maryland:** *Access to Well-Rounded Curriculum*
   - Percentage of 5th grade students enrolled in science, social studies, fine arts, physical education, and health (elementary schools)
   - Percentage of 8th grade students enrolled in fine arts, physical education, health, and computational learning (middle schools)
   - Percentage of students graduating or exiting with a certificate of program completion, with enrollment in Advanced Placement or International Baccalaureate courses, dual enrollment, or enrolled in a career and technical education program (high schools)

4. **Michigan:** *Access to Arts/Physical Education*
   The ratio of students to educators instructing courses in the fine arts and physical education (elementary schools/middle schools)

5. **Nebraska**: Evidence-Based Analysis
   School performance on the six tenets of Accountability for a Quality Education System, Today and Tomorrow (AQuESTT) indicators, including leadership; postsecondary, career and civic readiness; positive relationships; transitions; educational opportunities and access; and educator effectiveness (elementary schools/middle schools/high schools) (https://aquestt.com/about/)

Appendix D: Texas ECC Data Summary

Analysis of ECC Longitudinal Data

The analysis of the ECC longitudinal data measured the correlation between student participation and student outcomes in attendance, discipline, and relevant academic measures for each grade span while controlling for student demographic variables and, when appropriate, student fixed effects.

Due to the specificity of the student participation data, the analysis was able to classify participation by ECC category and dosage, which includes the duration of participation in each activity. The ECC student activity categories include Academic, Athletic, Avocation, Service Leadership, Visual/Performing Arts, and Total ECC, which measures cumulative participation regardless of the category. The dosage data for each student in each activity within a school year ranged from 0 to 1. For analysis, duration was classified as either 0 (no participation), .5 (participation for a half year), or 1 (participation for a full year). With the benefit of three years of data (2016 –2019), the analysis provides a more complete perspective on the impact of participation by measuring both individual student participation in half-year increments and student performance outcomes from year to year.

Building on the national research identifying the elements of participation associated with the additional outcomes of ECC participation, it is important to consider aspects of program design and implementation that may limit these benefits. Research has shown that duration, intensity, and engagement are the dimensions of participation most aligned with the additional benefits associated with ECC participation. Structuring ECC opportunities to maximize these dimensions is typically more challenging for grades 3–8, and especially for grades 3–5, due to the structure of the school day and the developmental stages of children within that grade span. In the longitudinal data used for this analysis, nonrandom assignment to ECC activities, such as encouraging students to participate in certain academic ECC activities to provide additional exposure to challenging instructional concepts, may slightly skew the results.

Furthermore, the dynamics of campus scheduling, such as when students must adjust ECC participation due to the availability of ECC-related courses, may also diminish the duration, intensity, and engagement of participation, resulting in decreased benefits. Moreover, it is also important to consider the variations within approved ECC activities in terms of the comparable intensity and engagement typically associated with each, even within those activities with similar duration. These considerations are important to keep in mind when reviewing the analysis data and during the discussion of possible future program design.

Overall, the use of a highly detailed data set encompassing a large and diverse student sample as the basis for rigorous analysis strongly supports the generalizability of the findings of this work and suggests a positive potential impact statewide, especially with options to align program design more closely with research-based practices for full implementation, if approved.

Longitudinal: Grades 3–8

For grades 3–8, analysis was conducted to evaluate the impact of additional ECC participation relative to performance on STAAR mathematics and reading. More specifically, this analysis looks at the likelihood of changes in STAAR performance, from a Did Not Meet or Approaches Grade Level performance level to a Meets Grade Level or Masters Grade Level performance level, relative to each increase in student participation dosage.

As students in grades 3–8 typically have multiple data points for their STAAR performance outcomes within a three-year window, this analysis was able to compare changes in performance over time with each student's own prior and/or subsequent performance while controlling for student fixed effects. This

approach is a more rigorous analysis method, which means there is a high degree of confidence that the resulting coefficients, while small, are attributable at least in part to the change in ECC participation. Importantly, the student fixed effects model controls for unobservable student-level factors, such as preferences or abilities, that might affect a student's likelihood of participating in ECC, which is a major challenge when identifying the contribution of ECC to student outcomes. The nuance of this analysis may be limited by the use of performance levels instead of scores, which prevents a more precise measurement of effect sizes. Due to differences in test construction and scaling practices between test versions, this analysis utilized performance levels to maximize inclusion of student results.

Consistent with the national ECC participation reviewed by the committee, overall analysis of the grades 3–8 longitudinal data shows:

- very small mostly positive effects on math and reading achievement; and
- small positive and statistically significant effects on attendance and discipline for all students, with comparable effect sizes for at-risk and economically disadvantaged students.

As students' time at school is limited, it does not appear that students' participation in ECC crowds out study time; on the contrary, the results show that ECC doesn't harm and even has positive effects on academic achievement, while simultaneously reducing absenteeism and suspension .

Longitudinal: Grades 3–8 Findings

Total ECC (Grades 3–8)	STAAR Math Meets Grade Level and Above	STAAR Reading Meets Grade Level and Above	Days Absent	Suspended or Expelled
All Students	-0.0002	0.0014	-0.0828***	-0.0015***
Observation Counts	*116,142*	*116,279*	*117,689*	*117,689*
At-Risk	0.0007	0.0026	-0.0992***	-0.0020***
Observation Counts	*76,241*	*76,334*	*77,285*	*77,285*
Eco-Dis	0.0012	0.0012	-0.0951***	-0.0014***
Observation Counts	*99,432*	*99,542*	*100,717*	*100,717*

Note: Each coefficient is from a separate regression.

***Statistically significant at the .01 level

Longitudinal: Grades 3–8 Additional Findings

All Students (Grades 3–8)	STAAR Math Meets Grade Level and Above	STAAR Reading Meets Grade Level and Above	Days Absent	Suspended or Expelled
Total ECC	-0.0002	0.0014	-0.0828***	-0.0015***
Total Academic ECC	-0.0023	0.0043**	-0.0405*	-0.0010**
Total Athletic ECC	0.0088***	0.0014	-0.0513	-0.0019**
Total Avocation ECC	-0.0023	-0.0051	-0.1102**	-0.0009
Total Service/Leadership ECC	0.0095***	0.0033	-0.0723	-0.0027***
Total Visual & Performing Arts ECC	-0.0056***	-0.0016	-0.0700**	-0.0002
Observation Counts	*116,142*	*116,279*	*117,689*	*117,689*

Note: Each coefficient is from a separate regression.

*Statistically significant at the .10 level

**Statistically significant at the .05 level

***Statistically significant at the .01 level

At-Risk (Grades 3–8)	STAAR Math Meets Grade Level and Above	STAAR Reading Meets Grade Level and Above	Days Absent	Suspended or Expelled
Total ECC	0.0007	0.0026	-0.0992***	-0.0020***
Total Academic ECC	-0.0035	0.0060**	-0.0564*	-0.0011*
Total Athletic ECC	0.0110***	0.0016	-0.0994**	-0.0027**
Total Avocation ECC	0.0031	-0.0034	-0.1498**	-0.0015
Total Service/Leadership ECC	0.0118***	0.0055	-0.0733	-0.0033**
Total Visual & Performing Arts ECC	-0.0061**	-0.0017	-0.0403	-0.0004
Observation Counts	*76,241*	*76,334*	*77,285*	*77,285*

Note: Each coefficient is from a separate regression.

*Statistically significant at the .10 level

**Statistically significant at the .05 level

***Statistically significant at the .01 level

Economically Disadvantaged (Grades 3–8)	STAAR Math Meets Grade Level and Above	STAAR Reading Meets Grade Level and Above	Days Absent	Suspended or Expelled
Total ECC	0.0012	0.0012	-0.0951***	-0.0014***
Total Academic ECC	-0.0027	0.0046**	-0.0381	-0.0008*
Total Athletic ECC	0.0102***	0.0018	-0.0733*	-0.0021**
Total Avocation ECC	0.0013	-0.0049	-0.1448***	-0.0014
Total Service/Leadership ECC	0.0151***	0.0037	-0.0832*	-0.0028***
Total Visual & Performing Arts ECC	-0.0057**	-0.0027	-0.0683**	0.0001
Observation Counts	*99,432*	*99,542*	*100,717*	*100,717*

Note: Each coefficient is from a separate regression.

*Statistically significant at the .10 level

**Statistically significant at the .05 level

***Statistically significant at the .01 level

Longitudinal: Grades 9–12

For grades 9–12, analysis was conducted using the 2016–2019 longitudinal data set to evaluate the impact of additional ECC participation relative to attendance, discipline, and outcomes on ACT Math and English, SAT Math and Evidence-Based Reading & Writing (EBRW), Advanced Placement (AP), and/or International Baccalaureate (IB) exams.

For this analysis, researchers were able to utilize student scores on each measure except for AP and IB, which instead used a binary variable (0,1) to indicate whether the student met the standard required for College, Career, and Military Readiness (CCMR). Unlike STAAR measures, these assessments do not provide the opportunity to compare changes in each student's performance over time. As a result, this analysis may somewhat overestimate the impact of ECC participation; however, the overall strength of the effects still suggests there is a statistically significant overall positive effect on student outcomes. Furthermore, the resulting coefficients can, with a relatively high degree of confidence, be attributed at least in part to increased ECC participation.

A review of ECC participation dosage (number of activities) by category (Academic, Athletic, Avocation, Service & Leadership, and Visual & Performing Arts) of 11th –12th grade students compared with their 10th grade ECC participation dosage in each category found that 65 percent of students were within +/- 1 activity in each category, indicating a relatively high degree of continuity of participation dosage and category over time.

It is important to note that national research found that a high amount of ECC participation, as defined by hours within a week, could result in decreased effects on academic outcomes, i.e., a point of diminished returns. Athletics and Visual/Performing Arts are the categories most often associated with higher hours of participation per week; therefore, these are more at risk for possible decreased effects, which was consistent with the participation levels observed in the longitudinal data.

Consistent with the national ECC participation reviewed by the committee, overall analysis of the grades 9–12 longitudinal data shows:

- medium-sized positive and statistically significant effects on attendance and academic outcomes for all students, with comparable effects for at-risk and economically disadvantaged students; and
- small positive and statistically significant effects on discipline for all students and economically disadvantaged students.

As students' time at school is limited, it does not appear that students' participation in ECC crowds out study time; on the contrary, results indicate that ECC has cumulative positive effects on academic achievement and reduces absenteeism and suspension simultaneously.

Longitudinal: Grades 9–12 Findings

Total ECC (Grades 9–12)	ACT Math Score	ACT English Score	SAT Math Score	SAT EBRW Score	AP/IB Met Criteria	Days Absent	Suspended or Expelled
All Students	0.5169***	0.7069***	10.1133***	10.3924***	0.0508***	-0.6553***	-0.0012**
Observation Counts	*15,363*	*15,363*	*16,058*	*16,058*	*17,467*	*17,467*	*17,467*
At-Risk	0.3583***	0.4831***	7.1844***	8.1851***	0.0764***	-1.2082***	-0.0013
Observation Counts	*5,944*	*5,944*	*6,354*	*6,354*	*7,474*	*7,474*	*7,474*
Eco-Dis	0.4877***	0.6262***	9.9306***	9.4517***	0.0534***	-0.7273***	-0.0012**
Observation Counts	*12,147*	*12,147*	*12,762*	*12,762*	*13,901*	*13,901*	*13,901*

Note: Each coefficient is from a separate regression.

***Statistically significant at the .01 level

Longitudinal: Grades 9–12 Additional Findings

At-Risk (Grades 9–12)	ACT Math Score	ACT English Score	SAT Math Score	SAT EBRW Score	AP/IB Met Criteria	Days Absent	Suspended or Expelled
Total ECC	0.3583***	0.4831***	7.1844***	8.1851***	0.0764***	-1.2082***	-0.0013
Total Academic ECC	0.4639***	0.7847***	11.2256***	12.0887***	0.0959***	-0.7866***	-0.0040
Total Athletic ECC	0.0839*	-0.0723	2.8529**	0.9977	0.0157*	-0.6544***	-0.0024
Total Avocation ECC	0.4748**	0.8585***	10.3676**	13.5899***	0.0704***	-2.2486***	0.0187
Total Service/ Leadership ECC	0.4874***	0.4774***	9.3354***	8.1114***	0.0647***	-0.6767***	-0.0060***
Total Visual & Performing Arts ECC	0.0759	0.2411***	0.1909	3.1883***	0.0394***	-0.7525***	0.0032
Observation Counts	*5,944*	*5,944*	*6,354*	*6,354*	*7,474*	*7,474*	*7,474*

Note: Each coefficient is from a separate regression.

*Statistically significant at the .10 level

**Statistically significant at the .05 level

***Statistically significant at the .01 level

Longitudinal: Grades 9–12 Additional Findings

Economically Disadvantaged (Grades 9–12)	ACT Math Score	ACT English Score	SAT Math Score	SAT EBRW Score	AP/IB Met Criteria	Days Absent	Suspended or Expelled
Total ECC[1]	0.4877***	0.6262***	9.9306***	9.4517***	0.0534***	-0.7273***	-0.0012**
Total Academic ECC	1.0356***	1.3171***	21.8701***	20.6039***	0.0730***	-0.7068***	-0.0033***
Total Athletic ECC	-0.3124***	-0.6791***	-4.8800***	-8.9975***	-0.0024	-0.0261	-0.0000
Total Avocation ECC	0.7686***	1.0093***	15.6100***	16.9896***	0.0584***	-1.7928***	0.0025
Total Service/ Leadership ECC	0.9231***	1.0535***	17.9963***	15.3526***	0.0578***	-0.7855***	-0.0047***
Total Visual & Performing Arts ECC	-0.0154	0.2266***	-1.0843	2.5861***	0.0270***	-0.4075***	0.0020**
Observation Counts	*12,147*	*12,147*	*12,762*	*12,762*	*13,901*	*13,901*	*13,901*

Note: Each coefficient is from a separate regression.

**Statistically significant at the .05 level

***Statistically significant at the .01 level

[1]Total ECC looks at an increase in participation in any ECC category, whereas the other regressions evaluate increases within each category. Additional analysis conducted looks at the effect of each category relative to the other categories, in which case no Total ECC coefficient is produced. Due to the nonrandom participation in some categories, the results of the latter regression are not as useful for understanding increased impact of ECC participation.

Part 2: Analysis for ECC Single-Year Data

The analysis for the ECC single-year data captured a preliminary snapshot of participation trends across district types and campus demographics. The single-year data analysis involved submissions from a total of nine districts in six regions for three school years, 2019 to 2022, and encompassed more than 300,000 student level records of participation by ECC activity and by year.

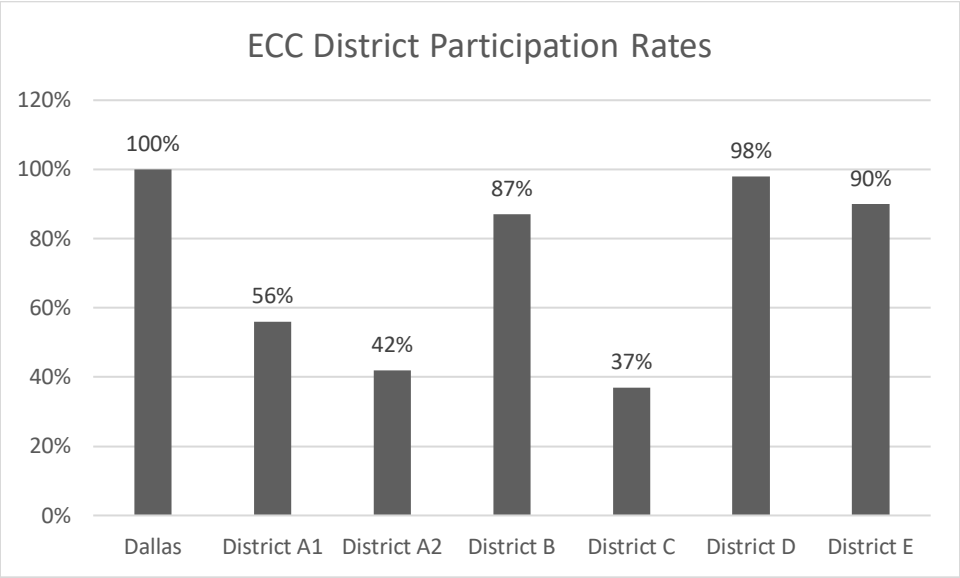
Due to the pandemic impact, some district data did not represent typical participation levels. The most representative samples were selected for additional review with an understanding that all districts reported some level of decrease in participation at times over the last three school years. It is also important to note that most participating districts did not have districtwide ECC data collection systems prior to their involvement with this project, which means that some of the reported data may not fully capture local student participation, especially for activities without a more uniform entry process.

Two of the participating districts have implemented an ECC-related indicator as part of their LAS plan, which provides an additional opportunity to evaluate the possible impact of a statewide ECC indicator on student ECC participation.

Key Observations from the ECC Single-Year Data:

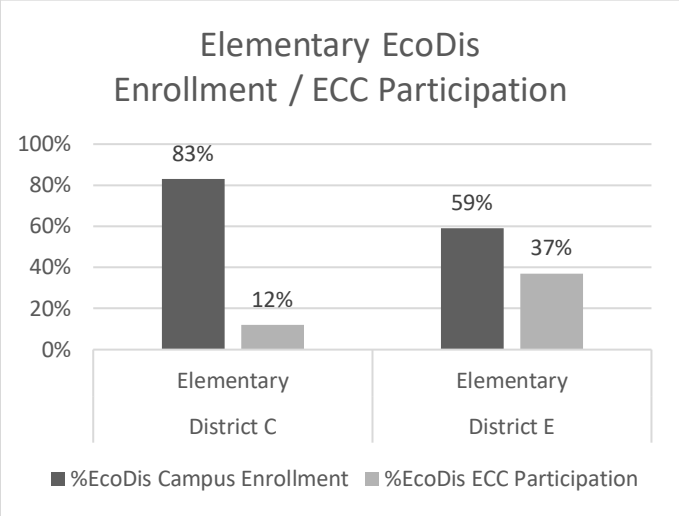
- Currently there is a wide range of ECC participation across the state.
- ECC participation by economically disadvantaged students is disproportionate to the campus enrollment percentages.

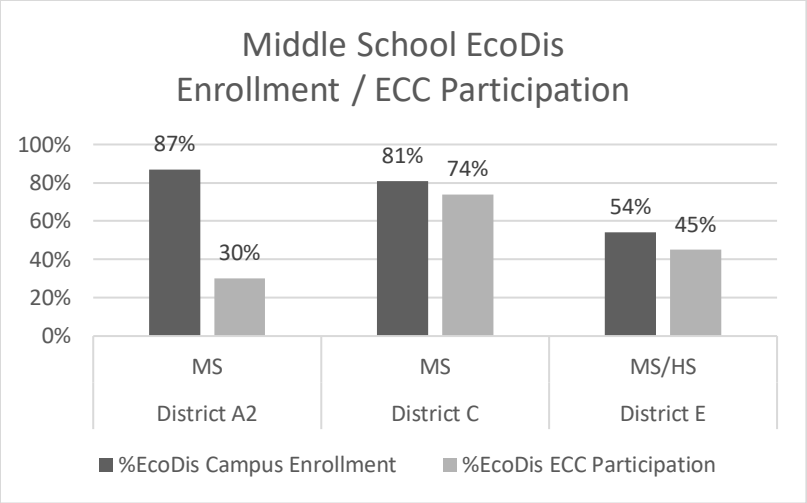
- Districts with a focus on ECC participation report overall higher levels of student participation, including economically disadvantaged students. This suggests that a statewide ECC indicator would increase student participation in ECC activities, which is associated with improved student outcomes in academics, attendance, and discipline.



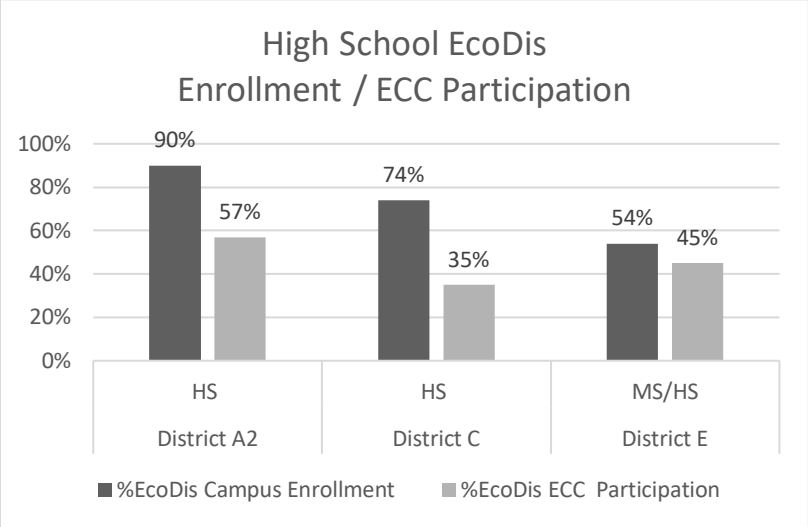
District Type
Districts A1 & A2 – Large City
District B – Suburban Large
District C – Town Distant
District D* – Town Remote
District E – Rural Remote

*LAS ECC indicator





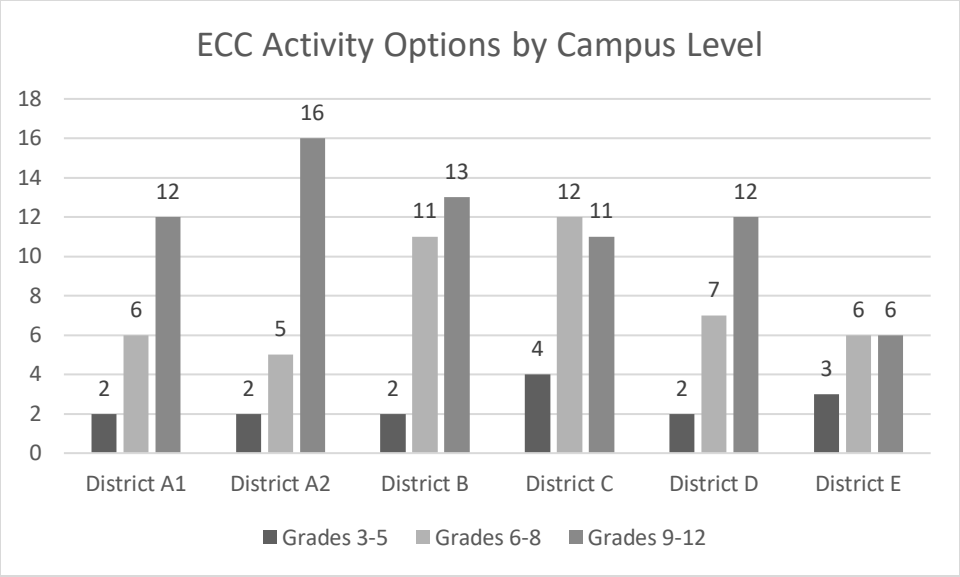
District Type
District A2 – Large City
District C – Town Distant
District E – Rural Remote



Throughout their work, the ECC committee has focused on ensuring the ECC process is viable for all districts regardless of size or location. District feedback early in the process indicated a concern that the ECC process would be more challenging for districts unable to provide access to many activities. The single-year data collection provides a preliminary indication of access to ECC activities across the state.

Based on district feedback, providing access to ECC activities is most challenging at the elementary level. As a result, the ECC committee recommends giving special consideration to the approved ECC activities for students in grades 3–5.

It is interesting to note that District D has an overall high percentage of student participation in ECC activities, due in part to LAS ECC indicator, without providing access to an unusually large number of ECC activities. For comparison, Dallas ISD offers more than 200 ECC activities at each campus level.



District Type
Districts A1 & A2 – Large City
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District D* – Town Remote
District E – Rural Remote

*LAS ECC indicator