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Implementing Ohio's Dyslexia Support Laws: Cost-Study Analysis Including Recommendations on Effectively Addressing the Costs of Implementing Dyslexia Screening, Identification and Remediation Services

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Ohio | Department of Education

OVERVIEW

The 133rd Ohio General Assembly passed legislation regarding the screening of and intervention for children with dyslexia effective April 12, 2021. House Bill 436 called for the formation of an Ohio Dyslexia Committee to:

- Develop a guidebook regarding best practices and methods for universal screening, intervention and remediation for children with dyslexia and dyslexic tendencies using a multi-sensory structured literacy program, and
- Prescribe the number of clock hours that is not less than six hours and not more than eighteen clock hours for dyslexia-related professional development for educators.

The Ohio Dyslexia Committee has been meeting once a month since May 2021 and will have a final draft of the guidebook to present to the State Board of Education in January 2022.

Central to House Bill 436 is the requirement for universal screening, followed by progress monitoring, diagnostic assessments and evidence-based intervention for students who are identified as at risk for dyslexia. School districts in Ohio are required to administer universal screening in grades kindergarten through three for dyslexia in the 2022-2023 school year. After 2023, universal screening will be administered to all kindergarten students from 2023 onward.

In addition, House Bill 436 requires the Department to submit a report with recommendations, based on a cost-study analysis, to the General Assembly by Dec. 31, 2021. The requirement for this cost study and focus of this report is described in House Bill 436 as follows:

> *SECTION 4. (A)(1) The Department of Education shall select not more than four school districts that have implemented dyslexia screening, identification, and remediation services similar to those prescribed by sections 3319.077, 3319.078, and 3323.251 of the Revised Code and analyze the financial costs incurred by the districts to implement those services.*
>
> *(2) The Department may select a community school established under Chapter 3314. of the Revised Code or a chartered nonpublic school instead of one school district for the purposes of the study prescribed under this section.*
>
> *(3) The Department may request the assistance of any educational institution or association for information or data the Department determines necessary to complete the study prescribed by this section. To the extent possible, an institution or association shall comply with the Department's request.*
>
> *(B) Not later than December 31,2021, the Department shall submit to the General Assembly, in accordance with section 101.68 of the Revised Code, a report based on the analysis conducted under division (A) of this section and make recommendations regarding how to effectively address the costs of implementing dyslexia screening, identification, and remediation services.*
> *The Department may include in the report any other information or data that the Department determines appropriate.*

To ascertain the financial costs incurred by school districts to implement universal screening, identification and remediation services for improving outcomes of students with dyslexia, House Bill 436 requires the Department complete a cost analysis of those processes and services and make recommendations on effectively addressing those costs. The Department sought the expertise of Dr. Julie Morrison, a Professor in the School Psychology Program at the University of Cincinnati, to conduct a cost study analysis using four districts. Dr. Morrison was the Lead Evaluator for Ohio's 2012 Dyslexia Pilot Project, which involved an analysis of the cost-effectiveness of universal screening, identification and intervention for students with, or at risk for, dyslexia (Morrison et al., 2018). Dr. Morrison is a member of the Joint Committee on Standards in Educational

Evaluation (JCSEE) representing the National Association of School Psychologists and currently serves as the Vice Chair of the JCSEE. Her book, co-authored with Dr. Anna Harms, *Advancing Evidence-based Practice through Program Evaluation: A Practical Guide for School-based Professionals*, was published in 2018 by Oxford University Press. The detailed cost-study analysis is outlined in the appendix attached to this report.

IDENTIFICATION OF FOUR MODEL DISTRICTS

House Bill 436 required the Department to conduct a cost analysis of not more than four districts that have implemented dyslexia screening, identification and remediation services aligned to the requirements of Ohio's dyslexia support laws[1]. Using the analysis, the Department was directed to make recommendations regarding how schools can effectively address the financial costs incurred to implement those services. The four districts selected for the cost study were Clermont Northeastern Schools, Cincinnati Public Schools, Marysville Exempted Village School District and Upper Arlington City Schools. These districts were selected to illustrate the range of costs that may occur based on the varying district needs across the state of Ohio. The following is a brief synopsis regarding each school's selection:

- Clermont Northeastern Schools was selected because in 2020 they were awarded a Comprehensive State Literacy Development grant[2] to develop a multi-tiered system of support for reading instruction, guided by the science of reading pedagogy and a structured literacy approach to reading instruction and intervention.
- Cincinnati Public Schools was selected based on their past participation in the Dyslexia Pilot Project which was established by House Bill 96 of the 129th Ohio General Assembly in 2011. House Bill 96 sought to evaluate the effectiveness of early screening and reading intervention for children at risk for reading failure including those students exhibiting risk factors associated with dyslexia. Cincinnati Public school buildings Mount Washington Elementary and Pleasant Ridge Elementary were used as individual models in the cost analysis. The two schools in this cost study report also participated in the State Systemic Improvement Plan: Early Literacy pilot. The pilot provided professional development for teachers to build their knowledge of components of structured literacy. The pilot also provided a building level assessment to identify whether there was a strong multi-tiered system in place to address struggling readers.
- Marysville Exempted Village Schools was selected because they were awarded a Comprehensive State Literacy Development federal grant for middle and high school, and their existing implementation of screening, intervention and remediation measures aligned to and even surpassed the requirements in Ohio's dyslexia support laws.
- Upper Arlington City Schools was selected because of its developed capacity for early identification and intervention for students with dyslexia in response to the advocacy of a parent group formed within the district in 2011.

Although four districts were selected for the cost analysis, five models in total were used in the study.

[1] Ohio's Dyslexia Support Laws include the following statutes: Dyslexia screening measures (ORC 3323.251), professional development for identifying dyslexia and instructing students with dyslexia (ORC 3319.077), a multi-sensory structured literacy certification process for teachers (ORC 3319.078) and the Ohio Dyslexia Committee (ORC 3323.25).

[2] The activities in the cost study took place one school year before the Comprehensive Literacy State Development grant was awarded to Ohio public school districts.

RECOMMENDATIONS TO EFFECTIVELY ADDRESS DYSLEXIA SUPPORT LAWS IMPLEMENTATION COSTS

The purpose of the cost analysis was to determine the financial costs incurred by school districts to implement universal screening, identification and remediation services that comply with Ohio's dyslexia support laws. The costs identified in the analysis are illustrative of the funding that may be needed to build the capacity to implement each model at other Ohio elementary schools. The findings of this analysis inform the following five recommendations for the implementation of a multi-tiered system of assessment and intervention supports for students at risk for dyslexia. The recommendations below align with the overall order of how each process might occur, starting with universal screening through consideration of special education services, if needed. Costs associated with each of these recommendations are outlined in the next section. It is important to note that there is not an exclusive cost estimate for each of the five elements outlined below. Costs associated with universal screening and strengthening core reading instruction are analyzed separately, as they will apply to all children; however, the costs associated with diagnostic assessments, progress monitoring and special education services were combined, as they will apply only to children who are determined to have, or be at risk for, dyslexia.

1. **Employ Universal Screening with Brief, Short-Cycle Assessments:** Ohio's dyslexia support laws require school districts to administer universal screening in grades kindergarten through three for dyslexia in the 2022-2023 school year. After 2023, universal screening will be administered to all kindergarten students from 2023 onward. Universal screening with brief, short-cycle assessments of academic skill fluency is foundational to the early identification of reading difficulties. Universal screening is used to identify students in need of additional diagnostic assessment and intervention. Universal screening data can be used as a barometer of the overall effectiveness of the school's core reading and literacy curriculum and instruction.

2. **Invest in Strengthening Core Reading and Literacy Curriculum:** In order to reduce the number of students who will need targeted and individualized intervention, it is recommended that districts strengthen the core curriculum around reading instruction. Investment in strengthening the core literacy curriculum and instruction is warranted in instances in which greater than one in five students are demonstrating some risk of reading difficulty. Although 40% of young students will find learning to read relatively easy with broad instruction, research indicates another 40% to 50% of students will require explicit, systematic and sequential instruction to become proficient readers (Van Der Heyden & Hasbrouck, 2021). Effective core instruction based on the science of reading pedagogy and a structured literacy approach to reading instruction is especially critical in schools serving high proportions of struggling readers, English learners or students who are economically disadvantaged and may not have had access to a high-quality preschool education (Cirino et al., 2009; Wanzek et al., 2016). Four of the five models in the cost study committed significant financial resources to improve the effectiveness of their school's core curriculum and instruction. See the Appendix for details of materials and training purchased for each of the models.

3. **Use Diagnostic Assessment Data to Match Students to Evidence Based Targeted Interventions:** Ohio dyslexia support laws require school districts to monitor the progress of each at-risk student identified through a tier one, universal screener for up to six weeks and to then administer a tier two dyslexia screening measure if no progress is observed. In alignment with the law, one of the models in the cost study administered intervention-based diagnostic assessments to students found to be at elevated risk of reading failure based on the universal screening results. The model then went one step further than the law requires and used the intervention-based diagnostic assessments to match students to evidence-based targeted interventions that directly align to the individual specific needs of the student. This practice is key to the early identification and remediation of reading difficulties. Findings from the evaluation of Ohio's Dyslexia Pilot Project highlighted the cost savings of providing

targeted intervention to reduce students' risk for reading failure and the need for more costly, intensive, individualized intervention (Morrison et al., 2020).

4. **Apply Progress Monitoring:** Ohio's dyslexia support laws require school districts to monitor the progress of each at-risk student identified through a tier one, universal screening measure for up to six weeks. Progress monitoring a student's response to intervention using brief, short-cycle assessments of academic skill fluency is central to ensuring the intervention provided is compatible and sufficient in intensity/dosage to effectively address the student's specific academic skill needs. Progress monitoring ensures each individual learner receives an intervention that addresses his or her specific skill needs.

5. **Consider Special Education Services only after Intensive, Individualized Interventions Fail:** An individual student's response to intensive, individualized intervention serves as the basis for determining whether a student's unique learning needs can be remediated with intervention or whether the successful elements of the intervention should serve as the basis for specially designed instruction safeguarded through special education services. All five models used evidence of a sustained lack of adequate progress in response to intensive, individualized intervention and/or data indicating the student could only make gains with highly intensive, individualized interventions to determine a student's eligibility for special education services. Two of the five models also included a clinical diagnostic assessment to supplement their special education eligibility decision making.

COST SUMMARY

The passage of dyslexia support laws signals Ohio's commitment to ensuring all students become proficient readers – while acknowledging that greater investment is needed to help schools build the capacity to support students with or at risk for dyslexia. Compelling evidence from a convergence of reading research indicates that approximately 95% of all students, including students with dyslexia, can achieve literacy skills at or approaching grade level within a proactive system of screening and early intervention (Torgesen, 2007; Vellutino & Fletcher, 2005).

Costs associated with each of the five recommendations have been analyzed. Costs vary from district to district, depending upon their selection of screening and intervention measures, progress monitoring procedures, and average salary bands of the designated professionals who implemented these procedures. As such, it may not be appropriate to apply these costs uniformly across all Ohio districts. This report includes the total costs for the four districts (See Table 6). Accompanying this report is an Appendix, which provides more detail regarding the specific components associated with the costs for each of the models. Costs are reported per 100 students for both universal screening and strengthening core reading instruction as those apply to all students; costs associated with targeted and intensive intervention are per student, as those only apply to students determined to have, or be at risk for, dyslexia. The total costs for supporting students at risk will vary according to the proportion of students within the district that require additional screening and intensive supports. Therefore, while it may be appropriate to extrapolate the cost of universal screening across all students and districts, the costs for targeted and intensive intervention for the state cannot be easily determined.

Cost to Employ Universal Screening with Brief, Short-Cycle Assessments

This cost-study analysis of four districts (five model sites) revealed varying costs of screening, identification and remediation of students with dyslexia or exhibiting dyslexic characteristics. The total cost of implementing a universal screening process per 100 students ranged between $3,675.70 (Upper Arlington) and $13,095.70 (Marysville). Screening costs were estimated per 100 students because Ohio's dyslexia support laws require that all students in grades K-3 are screened once a year for the 2022-2023 school year and then all kindergarten students annually in years thereafter. The law further requires that districts administer a "tier 2" screener (i.e., intervention-based diagnostic assessment or a clinical diagnostic assessment) to those students identified as at risk by the universal screener. Screening components described in this report included

universal screening, intervention-based diagnostic assessment and clinical diagnostic assessment. Full definitions of the screening options can be found in the Glossary of the Appendix.

As shown in Table 1, the selected districts implemented the components of the screening process in different ways. Costs, therefore, varied depending on the number and type of screening and assessment components used and the salary range of educators implementing the screening. For example:

- Clermont Northeastern administered a universal screener to all students in grades K-3 three times a year, followed by an intervention-based diagnostic assessment only to students determined to be at risk.
- Marysville administered both types of screeners (universal and intervention-based) to all students three times a year. Marysville was the only district out of the four that implemented all three types of screening components, which goes above and beyond the minimum requirements of Ohio's dyslexia support laws.
- Upper Arlington used a clinical diagnostic assessment as their universal screener for students in grades K-1 only once a year.
- Both Cincinnati elementary schools administered a universal screener three times a year for students in grades K-3.

Neither Upper Arlington nor Cincinnati schools reported using a tier 2 screener in their processes. See Table 1 for the components and costs for each district. Cincinnati Public Schools' totals are for two elementary buildings only.

In sum, only Clermont Northeastern and Marysville implemented screening processes that align with the requirements of Ohio's dyslexia support laws, although both employ practices that go beyond the law's minimum requirements. Specifically, Clermont Northeastern administers two universal screeners three times a year each (one is administered by staff and one is computer-based) and two intervention-based diagnostic assessments to students determined to be at risk. Marysville's screening process uses multiple measures that combine universal curriculum-based assessments and intervention-based diagnostic assessment tools three times a year along with a clinical diagnostic test to kindergarten students determined to be at risk for dyslexia. Costs incurred by Clermont Northeastern most likely reflect what other districts will need to consider as they move towards following the new laws and adhere to best practices with respect to screening.

Note that as districts move to implement the new screening laws in 2022-2023, they will be able to choose the screener they wish to implement from a list of Department-approved universal screeners and will have full autonomy to select an intervention-based diagnostic assessment that aligns with the dyslexia support laws. At the time of this report, the final list of approved universal screeners has not yet been released. As such, actual district costs for screening will vary as a function of the available screeners to choose from and the personnel costs associated with training and administering these assessments.

Table 1. Total Cost per 100 Students for Screening Process

	State Law Minimum Requirements	Clermont Northeastern	Cincinnati Public: Mt. Washington	Cincinnati Public: Pleasant Ridge	Marysville	Upper Arlington
Universal Screening	Once to students in K-3 (2022-2023) and annually for K (2023 onwards)	✓ 3 times	✓ 3 times	✓ 3 times	✓ 3 times	×
Intervention-based Diagnostic Assessment	Only for students demonstrating risk	✓	×	×	✓	×
Clinical Diagnostic Assessment	Not required in state law	×	×	×	✓	✓
Cost per 100 Students (Median Salary Rate)		**$7,590.79**	**$7,058.29**	**$5,197.85**	**$13,095.70**	**$3,675.70**

Key:
✓ Administered universally to all students.
✓ Administered selectively to students demonstrating elevated risk.
× Not administered as part of the screening process.

Cost to Invest in Strengthening Core Reading and Literacy Curriculum

Establishing and implementing a strong multi-tiered system of instructional and intervention supports include three critical components: (1) strengthening core curriculum and instruction, (2) providing targeted intervention, and (3) providing intensive individualized intervention for those students who are not making progress on targeted intervention. Ohio's new dyslexia support laws are clear that districts must provide intervention and remediation for students with dyslexia or children displaying dyslexic characteristics and tendencies using a multi-sensory structured literacy program, reflecting the second and third components listed above. In order to reduce the number of students who will need targeted and individualized intervention, it is recommended that districts strengthen the core curriculum around reading instruction. The costs described below, estimated per 100 students, reflect the districts' efforts to bolster core reading instruction based on different curricula, staffing costs, and coaching models. Strengthening core instruction may decrease the number of students needing targeted and intensive intervention, thus saving a district money over time.

The cost per 100 students for strengthening the core curriculum and instruction across the four districts ranged considerably, between $1,496.51 (Upper Arlington) and $37,004.55 (Cincinnati Public: Mt. Washington Elementary) with a mean of $16,656.98. Costs largely varied according to personnel costs associated with implementing the core curriculum, as detailed in the Appendix. Upper Arlington's components for strengthening core instruction only included program materials and progress monitoring (see Table 2), whereas Cincinnati's Mt. Washington Elementary included a program, materials, training, staffing costs associated with coaching, progress monitoring, and fidelity of implementation (see Table 3). The costs for strengthening core curriculum included programming, materials, training and coaching, progress monitoring and fidelity of implementation.

Costs associated with personnel time are typically the largest component in cost analysis in educational settings (Barrett et al., 2020). To provide an accurate estimate of salary rates in Ohio, careful attention was

paid to the annual salary by role (e.g., teacher, school psychologist, principal) given the varied number of days under contract and number of hours per day stipulated. Salary information (i.e., annual salary, number of days per week, number of days under contract) was obtained for the 2019 calendar year, which includes contracts for the 2018-2019 and 2019-2020 school years.[3] Personnel benefits were included in the hourly salary rate at 33%. Salary rates across the spectrum (low, medium and high) were calculated based on the median salary for each educational professional involved in the screening, identification and intervention processes (teachers, speech-language pathologists, school psychologists, etc.). "Low salary rate" represented the 25th percentile of the spectrum, "Medium salary rate" represented the median reported salary and "High salary rate" represented the 75th percentile. The Appendix provides full details of the low, medium and high salary rates for all relevant school personnel.

Table 2. Cost per 100 Students for Strengthening the Core Curriculum and Instruction at Upper Arlington Schools

Component	Element	Cost
Program	Wilson Fundations	$239.38
Materials	Heggerty	$70.13
Training		
Coaching	Instructional Coach	$ -
Delivery	Core Instruction with Supplements	$ -
Fidelity	Implementation Fidelity Checks	$ -
Progress Monitoring	STAR	$1,187.00
Cost per 100 Students		**$1,496.51**
Training Cost per Educator (Fundations)		**$289.00**

[3] Salary figures for personnel involved in the screening and early intervention of students with, or at risk for, dyslexia were obtained from a publicly accessible database created by The Buckeye Institute (https://www.buckeyeinstitute.org).

Table 3. Total Cost per 100 Students for Strengthening the Core Curriculum and Instruction at Cincinnati Public Schools' Mt. Washington Elementary

Component	Element	Cost at Median Salary
Program	Wilson Fundations	$3,498.56
Materials	Geodes Library (K-2) Decodable texts Consumables: 1-year Photocopies	$5,896.28 $950.48 $1,127.23 $106.38
Training		$614.89
Coaching	Instructional Coach	$23,404.26
Delivery	Core instruction with supplements	$ -
Fidelity	Conducted by Reading Specialist	$390.38
Progress Monitoring	Acadience: Winter & Spring Benchmark	$1,016.09
Cost per 100 Students		**$37,004.55**
Training Cost per Educator		**$289.00**

Note: Costs are based on the median salary and differed marginally across salary rates. Full details per salary rate are provided in the Appendix.

Cost to Use Diagnostic Assessment Data and Progress Monitoring to Match Students to Evidence Based Targeted Interventions

The cost per student for targeted intervention ranges between $30.00 (Upper Arlington, see Table 4) and $2,704.34 (Cincinnati Public, Mt. Washington Elementary, see Table 5) with a mean of $1,758.57. The costs for intensive, individualized intervention range between $1,925.54 (Cincinnati Public, Mt. Washington Elementary, see Table 5) and $3,945.18 (Upper Arlington, see Table 4) with a mean of $3,059.35. These costs per student for targeted and intensive and individualized intervention varied according to the selected programming, materials, training and coaching, delivery, progress monitoring and fidelity of implementation. Detailed costs per these components are outlined for each district in the Appendix. Districts across Ohio are not mandated to use any one specific intervention program; therefore, the costs to implement the intervention and remediation components of the dyslexia support laws are likely to vary considerably, based on the selected intervention, materials, training, and personnel costs. Moreover, these costs will vary according to the proportion of children requiring targeted and individualized support. For districts looking to provide instruction within a Multi-Tiered System of Support (MTSS) framework, the expectation is that anywhere from 10-15% of students will need targeted intervention and approximately 1-5% of students will need intensive individualized support. However, the actual proportion of children who need these levels of support will vary from district to district.

Table 4. Cost per Student for Targeted Intervention and Intensive, Individualized Intervention at Upper Arlington Schools

Component	Element	Cost at Median Salary
Program	Lexia® Core5® Reading	$30.00
Materials	Orton-Gillingham Materials (Individualized Intervention)	$263.33 $75.15
Training	Orton-Gillingham Training (Individualized Intervention)	$83.33
Coaching		$ -
Delivery	Targeted Intervention Groups	$ -
	Individualized Intervention: Orton-Gillingham	$3,523.37
Fidelity		$ -
Progress Monitoring		$ -
Cost per Student: Targeted		**$30.00**
Cost per Student: Individualized		**$3,945.18**

Table 5. Cost per Student for Targeted Intervention and Intensive, Individualized Intervention at Cincinnati Public Schools' Mt. Washington Elementary

Component	Element	Cost at Median Salary
Program	Orton-Gillingham Card Decks	$18.00
Materials	Photocopies	$6.67
Training	$1,750 per teacher	$466.67
Coaching	Instructional Coach	$ -
Delivery	Targeted Intervention Groups	$2,093.03
	Individualized Intervention	$1,314.23
Fidelity	Conducted by Reading Specialist	$24.46
Progress Monitoring	Acadience Reading	$95.51
Cost per Student: Targeted		**$2,704.34**
Cost per Student: Individualized		**$1,925.54**

Note: Instructional coaching cost are accounted for in core curriculum and instruction costs

The total amount for strengthening a multi-tiered system of instruction and intervention across the four districts ranges from $5,471.69 (Upper Arlington) to $41,634.43 (Cincinnati, Mt. Washington elementary) with a mean of $21,474.89. These amounts vary due to the intensity of strength needed in a district, or in the case of Mt. Washington, a building. Table 6 illustrates that the range of costs to strengthen core instruction are wide. As detailed in the Appendix, these costs vary largely due to the number and type of programs used and the personnel costs associated with the time for training and appropriate implementation. Thus, the costs outlined below are representative of the unique needs of Ohio districts and the range of expenses districts will need to consider will be broad.

CONCLUSION

This report provides a brief analysis of the costs associated with varying implementation levels of universal screening, diagnostic assessments, core reading instruction and intervention practices specific to four school districts in Ohio. These costs are summarized below in Table 6 and illustrate the range of four districts as they work to implement components of Ohio's dyslexia support laws, which will go into effect in the 2022-2023 school year.

As indicated above, the wide range of costs reflect the vast differences with respect to the number and type of screening measures and intervention programs used, and the personnel costs of administering these measures and programs. When interpreting the mean cost across districts, it is important to remember that the components for each district varied considerably (e.g., some districts included staffing costs and some did not, some districts used multiple screening measures and others used only one) and may not be directly comparable, particularly with respect to screening.

Marysville is the only district of those studied that incorporated all three components of the screening process outlined in the analysis. The tier one universal screener and tier two intervention-based diagnostic assessment are both required under the dyslexia laws. The tier three clinical diagnostic assessment is not required; however, Marysville uses this assessment for students who continue to show signs of risk based on the tier 2 intervention-based diagnostic assessment. Upper Arlington administers a clinical diagnostic assessment to every K-1 student but did not report the inclusion of a universal screener or an intervention-based diagnostic assessment. Thus, for a detailed understanding of the components associated with each district's median expenses, please refer to the Appendix.

The four districts illustrated in this study already had many components of effective screening, intervention and remediation services in place. In addition, these districts had invested significant funds toward strengthening core reading and literacy instruction for all students, so their targeted and intensive intervention costs were likely lower in comparison to other districts without these measures already in place. Therefore, the financial resources required may be substantially more for districts with limited or no components of screening and targeted and intensive intervention services in place specific to meeting the needs of students with dyslexia or exhibiting dyslexic characteristics. There may be districts across Ohio who have some of these components in place and many that may not have any in place.

In sum, the cost study analysis revealed districts across Ohio will likely incur significant expenses for the implementation of dyslexia screening, identification and remediation services and that these costs will vary considerably depending upon the district's implementation status, screeners and assessments selected, frequency of use of screeners and assessments, resources, and staffing models. For the 2022-23 school year, the total cost will be higher because of the requirement to universally screen all students in grades K-3, but following the initial year, the total cost should drop as the law only requires Kindergarten universal screening annually thereafter. In the short term, schools and districts can use the additional state foundation funds provided through the recently enacted state budget and new school funding formula to support these efforts. Schools and districts can also make a strong connection between these dyslexia supports and the ongoing response to the COVID-19 pandemic. As a result, the significant influx in federal COVID relief funds may be leveraged to support these new or increased costs for the next several years. Longer term, the state should determine if and how to incorporate these requirements into the state's school funding formula. While the new formula funds students at grades K-3 at lower student teacher ratios and provides supplemental funding for economically disadvantaged students and districts with lower capacity to raise local revenue, the state should consider if modifications to the formula are warranted to further alleviate these costs. Dedicated funding may help districts build capacity to increase and sustain effective implementation of screening, instruction and intervention for their students with dyslexia or dyslexic tendencies.

Table 6. Summary of Screening Process and Multi-tiered Systems of Instruction and Intervention Supports for the Five Models

	Clermont Northeastern	Cincinnati Public: Mt. Washington	Cincinnati Public: Pleasant Ridge	Marysville	Upper Arlington	Mean Cost
Screening Process and Strengthening Core Instruction for All Students (Includes Universal Screening. Intervention-based Diagnostic and Clinical Diagnostic Assessment)						
Screening Cost per 100 Students **(Median Salary Rate)**	$7,591	$7,058	$5,198	$13,096	$3,676	$7,324
Strengthening Core Curriculum and Instruction - Cost per 100 Students (Median Salary Rate)	$24,621	$37,005	$10,791	$9,371	$1,497	$16,657
Targeted Intervention - Cost per Student (Median Salary Rate)	$1,768	$2,704	$2,463	$1,828	$30.00	$1,759
Intensive, Individualized Intervention - Cost per Student (Median Salary Rate)	$2,538	$1,926	$3,248	$3,640	$3,945	$3,059

Note: Not all districts included all components of screening, instruction and intervention. Costs for Targeted and Intensive Intervention only apply to students with, or at risk for, dyslexia. Costs for Targeted and Intensive Intervention were not totaled, as not all students will require both levels of intervention.