Issue Brief: Staffing Aligned with Service Delivery
April 2024

Guiding Question:

What evidence-based staffing models aligned with service delivery models for special education and related services could be implemented that would improve student achievement, be sustainable, improve working conditions, and encourage retention of educators?

Background

The topic of staffing and service delivery includes how, where, and by whom special education and related services are delivered to students with disabilities. It covers a variety of facets of staffing and provision of special education and related services— instructional models (e.g., co-teaching, small group, direct instruction from a special educator or related service provider, and consultation), locations (e.g., inside or outside of the general education classroom), types of personnel (e.g., general and special educators, related service providers, paraprofessionals, IEP chairs and clerks), student-teacher/provider ratios, and caseloads and workloads. A few of these areas are discussed below.

Ultimately these decisions have wide-ranging impacts on students, educators, and school systems, including the academic achievement and social growth of students, the working conditions of educators, and the budgets of schools and districts. Decisions about service delivery overlap with other recent topics we have explored in the Workgroup: how IEP teams define specially designed instruction and the knowledge, skills, and expertise of educators. With respect to funding—a future Workgroup topic—staffing is limited by financial and resource constraints. Staffing for service delivery models based on limited funding results in staffing that does not provide FAPE as mandated by IDEA[1] and also negatively affects working conditions and teacher retention.

Staffing Plans

Annually, Maryland LEAs develop and submit to MSDE a Special Education Staffing Plan, pursuant to COMAR 13A.05.02.13: *A public agency shall develop a staffing plan consistent with the procedures provided by the Department to ensure that personnel and other resources are available to provide FAPE to each student with a disability in the least restrictive environment as determined by an IEP team. The local board shall approve the staffing plan.* MSDE has a *Staffing Plan Review Guide* for LEA use that contains suggested content for each of the required elements of the staffing plan and a scoring rubric for internal LEA review and analysis of its plan. MSDE reviews the plans, but does not approve them, nor are they part of comprehensive monitoring.

[1] See Special Education Workgroup Recommendation #1 on Expectations. Most students with disabilities should be enabled through the goals, services and supports in their IEPs to reach grade-level standards; students who take the alternate assessment should be enabled to have meaningful access to and make progress in the grade-level curriculum and meet alternate academic achievement standards.

Wide variability is evident among the LEA plans in: the scope and content elements included, the level of specificity, and the process for development (including opportunities for stakeholder input and evidence of that input).[2] There is also significant variability in staffing and student-provider ratios. For example, the caseload ratios for speech language pathologists range from 1:40 to 1:60 across Maryland's LEAs without disaggregation of IEP services.[3] Student-teacher ratios for self-contained special education classrooms are often specified in these plans, but there is little or no explicit guidance for the allocation of special education staff to provide services under the various service delivery models to students who spend most of the day in general education classrooms.

Discussion Question: What evidence-based standards for staffing should MSDE require annually in LEA Staffing Plans?

Class Size

The average overall class size in Maryland for the 2021-22 school year was 19.2, with an average of 21 in elementary schools, 19.3 in middle schools, and 17.5 in high schools. These state averages are similar to national averages.[4] However, there is wide variability among Maryland's LEAs, with a range of overall average class size from 14 in Kent Co. to 26 in Harford Co. In elementary schools, the range is even larger: from an average class size of 15 in Allegany Co. to 33.6 in Harford Co.[5]

There's a long history of research on the impact of class size on student achievement and engagement, primarily in general education classrooms without disaggregation of students with and without disabilities. Positive academic achievement effects are most evident in grades K-3 and for economically disadvantaged students.[6] Maryland is one of 16 states (plus DC) without any statutes or regulations outlining student-teacher ratios for grades K–3. The range in those states that outline ratios are from 1:15 to 1:25.[7] While mandated reductions in general education class sizes can have unintended negative consequences (e.g., lowering teacher quality), and there is limited research to justify this as a core strategy, large class sizes have

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[2] See, for example, staffing plans from Calvert Co., Montgomery Co., Baltimore Co., Baltimore City, Allegany Co., Worcester Co., Harford Co.

[3] Willis, J., Doutre, S. M., & Jacobson, A. B. (2019). *Study of the Individualized Education Program Process and the Adequate Funding Level for Students with Disabilities in Maryland*, WestEd. p. 83.

[4] National Center for Education Statistics, Average public school class size, 2020-21, https://nces.ed.gov/surveys/ntps/estable/table/ntps/ntps2021_fl07_t1n

[5] MSDE, Div of Assessment, Accountability, and Performance Reporting (March 2023). Class Size in Maryland Public Schools: 2021-2022 School Year. https://marylandpublicschools.org/about/Documents/OCP/SpecialReports/ClassSizeReport-2021-2022.pdf

[6] For a list of research studies see: Regional Educational Lab at FL State University, Institute for Education Statistics (2019). *What research is available pertaining to the impact of class size on student achievement?* For discussions of the research and policy implications see: Jepsen, C. (2015). Class size: Does it matter for student achievement? *IZA World of Labor.* Saenz-Armstrong, P. (2021). Comparing school districts on class size policies. *National Council on Teacher Quality.*

[7] Education Commission of the States (2023). State K-3 Policies 2023: Does the state specify a required student-to-teacher ratio for grades K–3?

obvious negative impacts for students,[8] and may contribute to poor working conditions for educators, exacerbating high rates of attrition.

The only class size standard currently in COMAR concerns nonpublic special education day schools.[9] A 2023 review of research on class size and special education concluded that "there were virtually no contemporary quantitative studies exploring the effects of small class sizes in special education."[10]

It's worth noting that a focus on class size ignores the need for evidence-based best practices for determining teacher/provider-student ratios in all service delivery models. Some states have standards and/or guidance related to teacher-student ratios in self-contained special education classrooms, as well as the proportions (or numbers) of students with and without disabilities in general education classrooms.[11] Some advocates for inclusive education argue for "natural proportions" within general education classrooms, a principle that a recent joint policy statement by the US Departments of Health and Human Services and Education noted "should guide the design of inclusive early childhood programs and classrooms."[12]

Caseload vs. Workload

Caseloads, i.e., the number of students with IEPs assigned to a special educator or related service provider, have been the traditional model for distributing special education service provision to staff. High caseloads are a frequently noted and obvious problem, leading to teacher burnout and attrition and negative impacts for students. Nationally, state policy is all over the map on guidance for determining caseloads, with many states providing no guidance and little agreement among the policies that do exist. Maryland is one of 15 states (plus DC) with no statutory or regulatory guidance on caseloads. [13]

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[8] For example, consider the impact of class size alone on a 1st grade student with a disability in a general education class of 14 vs. a class of 36 if there is any portion of the day with whole group instruction.

[9] COMAR 13A.09.10.17.E(2) (a) The average class size may not exceed six students with disabilities per full-time certified teacher. (b) If an aide is present in each class, the average class size may not exceed nine students with disabilities per full-time certified teacher. (c) The average class size for students with significant orthopedic impairments may not exceed seven students with disabilities per full-time certified teacher when an aide is present in each class.

[10] Bondebjerg A., Dalgaard N.T., Filges T., Viinholt B. C. A. (2023). The effects of small class sizes on students' academic achievement, socioemotional development and well-being in special education: A systematic review. *Campbell Systematic Review, 19*(3):e1345.

[11] For example, NY guidance provides a maximum number of students with disabilities that can be included in a class with integrated co-teaching services. See https://www.nysed.gov/special-education/continuum-special-education-services-school-age-students-disabilities

[12] US Dept. of Health & Human Services and US Dept. of Education (2023). *Policy Statement on Inclusion of Children with Disabilities in Early Childhood Programs*.

[13] A 2020 analysis of state caseload policy found that many states (including MD) have little or no guidance and that specific caseload policies in 20 states vary significantly state to state. Some have a maximum number of students; others use factors like disability category, grade level, or level of support to determine caseloads, with a range of 15–50 students per caseload. Hogue, L. B., & Taylor, S. S. (2020). A review of special education caseload policies state by state: What impact do they have? *Journal of Special Education Leadership, 33*(1), 1-11.

But focusing on caseload flattens the work of educators/providers to counts of students, rather than understanding their workloads as a composite of evidence-based instructional best practices aligned to various service delivery models as well other distinct and critical tasks and roles. Shifting from caseloads to workloads based on workload analysis models is an alternative approach that some states and districts are implementing.

Workload analysis models may be calculated based on:

1. SDI: Direct and indirect minutes (including consultative services, adaptation of curriculum, planning with related service providers)
2. Evaluations/re-evaluations
3. IEP case management (including meetings, FBAs/BIPs, parent communication, progress reporting, etc.)
4. Preparation time (including creating materials)
5. Directing the work of paraprofessionals
6. Other non-special education assignments (e.g., bus duty, study hall, field trips, etc.)[14]

A number of states have piloted or are exploring workload calculators for special educators.[15]

For some related service providers, professional standards (e.g., for school psychologists[16] and social workers[17]) establish best practices including ratios of providers to total school enrollment, students with IEPS, or numbers of direct service hours. Professional associations of speech-language pathologists and occupational and physical therapists recommend a shift from caseload ratios to workload calculations based on direct service, consultations, indirect tasks, and travel (if itinerant).[18] The American Speech-Language-Hearing Association (ASHA) notes that there's "no research to support a specific caseload size" and that large caseloads may limit service delivery options and negatively impact student outcomes particularly for multilingual

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[14] See examples from: National Education Association, *Backgrounder: Special Education Workload Analysis Model*. Minnesota Department of Education, *Workload* Considerations for Effective Special Education.

[15] See Colorado Educators Association, Wisconsin, Ohio,

[16] *The Professional Standards of the National Association of School Psychologists* (2020), p. 12. "The ratio of school psychologists to students is a critical aspect of providing high-quality, comprehensive services and should not exceed one school psychologist for every 500 students. In some situations, the school psychologist-to-student ratio may need to be lower. These include, but are not limited to, situations in which school psychologists are assigned to work primarily with student populations that have intensive special needs (e.g., students with significant emotional or behavioral disorders, or students with developmental disorders) or within communities that are disproportionately affected by poverty, trauma, and environmental stressors."

[17] *National Association of Social Workers Standards for School Social Work Services* (2012). "School social work services should be provided at a ratio of one school social worker to each school building serving up to 250 general education students, or a ratio of 1:250 students. When a school social worker is providing services to students with intensive needs, a lower ratio, such as 1:50, is suggested."

[18] American Occupational Therapy Association, American Physical Therapy Association, American Speech-Language-Hearing Association (2014). Workload Approach: A Paradigm Shift for Positive Impact on Student Outcomes.

students, collaboration with other educators, recruitment and retention, supervision, professional development, and unmanageable paperwork.[19]

A note about IEP case management: IDEA details the required members of the IEP team including the parents, special educator, general educator, an individual who can interpret evaluations, the student whenever appropriate, and: "a representative of the public agency who— (i) Is qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of children with disabilities; (ii) Is knowledgeable about the general education curriculum; and (iii) Is knowledgeable about the availability of resources of the public agency."[20] It leaves open, however, which member (or someone else) is responsible for case management. Sometimes an assistant principal, general educator or special educator will handle this role. However, there is a widespread practice of a distinct position of "IEP Chair" who performs these functions. IEP Chairs should have the expertise to guide the development of the IEP, as well as manage administrative tasks (with possibly the assistance of clerks). In 2022, MSDE, Loyola University and MCIE collaborated to develop an online, 10-hour, asynchronous, non-facilitated professional learning opportunity to earn an IEP Chairperson micro-credential; the program implementation was since been paused.[21]

Discussion Questions:

1. What guidance, if any, should MSDE provide to LEAs on class sizes in general and special education classrooms and proportions of students with and without disabilities in general education classrooms, at different grade levels?
2. What evidence-based standards or guidance for teacher/provider-student ratios under various service delivery models should be adopted by MSDE?
3. What workload standards based on best practices or professional judgment could MSDE set?

Models of Service Delivery

As noted above the components of service delivery are the frequency, duration, location, provider, and provider-to-student ratio[22] for each service being provided to a student. The various combinations of these components describe various models of service delivery including, for example, co-teaching, consultation, services delivered inside the general education classroom by a general or special educator or related service provider, services delivered outside the general education classroom by a special educator or related service provider, and segregated classes where students spend the majority of their instructional day separate from nondisabled peers. The implementation of these service delivery models results

[19] ASHA, Caseload and Workload
[20] IDEA, Sec. 300.321 IEP Team
[21] Loyola University Maryland, School of Education, Maryland IEP Chairpersons Stacked Credential.
[22] Provider-to-student ratio, sometimes referred to as group size (e.g., "1:1," or "small group of no more than 5"), is often not documented on Maryland IEPs. Group size also is a significant factor in educator workload, but the determination of group size should be based on evidence-based practice and professional judgment and specified as part of the service in the IEP.

in a category of placement (i.e., LRE A, B, etc.), but the selection of service delivery models should be determined based on evidence-based best practices, professional judgment, and the student's individualized needs rather than issues related to schedules, convenience of service providers, or a student's classroom placement.

Co-teaching

Co-teaching is often mentioned as the best model for staff deployment and service delivery. However, it's important to note that, like all service delivery models, the success of co-teaching is largely a function of implementation.[23] Co-teaching encompasses a variety of collaborative instructional models.[24] Choosing the best model for a given classroom will depend on the skills and expertise of the co-teachers, the grade level and subject area, the community of learners, the class size, or the specific lesson. Each model will also require varying levels of planning time and coordination between the co-teachers.

The benefits of co-teaching include students with disabilities being included in core instruction, the pairing of content and instructional expertise of general and special educators creating more accessible instruction for all, and possibilities for small group instruction from highly qualified educators within the general education classroom. To mitigate the cost of this staffing model, some schools may cluster students with disabilities into co-taught "inclusion" classrooms—an approach in need of additional research to determine its benefits and potential negative impacts.[25]

Direct Services: Inside or Outside of the General Education Classroom

Specially designed instruction can be provided directly by a special educator, general educator, or related service provider inside or outside the general education classroom. Decisions about *where* a student's service is provided should be based on evidence-based best practices. Removal from the general education environment must be justified on the IEP.[26] Group size (or more specifically provider-to-student ratio) and the frequency, duration, and provider are critical variables that again should be determined by evidence and professional judgment.

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[23] While current training, scheduling, staffing, and funding models don't lend themselves to widespread, effectively implemented co-teaching, recent meta-analyses point to moderately positive effects. See, for example, King-Sears, M.E., Stefanidis, A., Berkeley, S., & Strogilos, V. (2021). Does co-teaching improve academic achievement for students with disabilities? A meta-analysis, *Educational Research Review, 34,* https://www.sciencedirect.com/science/article/pii/S1747938X21000282. Vembye, M. H., Weiss, F., & Bhat, B. H. (2022, May 4). The effects of co-teaching and related collaborative models of instruction on student achievement: A systematic review and meta-analysis. *Review of Educational Research,* https://journals.sagepub.com/doi/abs/10.3102/00346543231186588.

[24] For example, station teaching, one-teach/one make multisensory, parallel teaching, duet (or teaming), one teach/one assist, one teach/one float (or observe), or alternative teaching. See: Inclusive Schooling, Co-Teaching Models. Kentucky Dept. of Ed., (2011). Collaborative Teaching Practices for Exceptional Children. Generally speaking, co-teaching implementations that prioritize small group instruction (e.g., station teaching) are preferable to models like one teach/one assist.

[25] As noted above, standards and guidance related to the proportions of students with and without disabilities are utilized in some states.

[26] When a student is removed from the general education environment, Maryland IEP directs the team to "explain reasons why services cannot be provided in that setting with the use of supplementary aids and services."

Consultative Service and General Educator as "Primary Provider"

A special educator or related service provider can provide indirect/consultative service by consulting with a general education teacher to specially design instruction for a student.

Maryland does not require that specially designed instruction be delivered by a special educator. Many students with disabilities have a general educator listed as the "primary provider" of special education service in one or more areas, "when a general education teacher collaborates with a special educator and/or related service provider who is qualified in the area of the student's need."[27] When services are provided in this way, time for general and special educators to collaborate and/or specific consultative service provided by special educators is necessary to ensure that SDI is being appropriately designed and delivered. The time and responsibilities of the educators should be clearly defined and documented in the student's IEP.

Discussion Questions: What staffing standards and guidance could MSDE define to support alignment of staffing with service delivery models?

Paraprofessionals

Paraprofessionals, or paraeducators/teacher's assistants, provide support to teachers and all students, those with and without disabilities, with health needs, and emerging multilingual learners. A 2022 OSEP memo to State Directors of Special Education indicates that paraprofessionals "who are **appropriately trained and supervised, in accordance with State law, regulation, or written policy**, may be used to assist in the provision of special education and related services to children with disabilities."[28]

While some research suggests that "paraprofessionals can positively influence student learning when they are placed in appropriate roles and provided with adequate preparation and ongoing supervision," research also indicates that reliance on paraprofessionals can have a negative impact on students with disabilities, particularly one-on-one assignments of paraprofessionals to these students.[29] Inadvertent detrimental effects include limiting interactions with classmates, unnecessary dependence, interference with teacher engagement and limiting access to competent instruction.[30]

The 2019 study of Maryland's IEP process noted that: "Regarding the use of paraprofessionals, the researchers saw a common practice and also read about it in staffing plans: the practice of hiring part-time, temporary paraprofessionals to do the difficult work of providing individualized support to students with the most intensive needs. This approach can decrease the effectiveness of services and unnecessarily stress both the system and the child. The

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[27] MSDE, Technical Assistance Bulletin 19-01.
[28] OSEP, (Oct. 4, 2022). Personnel Qualifications under Part B of the Individuals with Disabilities Education Act (IDEA) [Memorandum OSEP 22-01].
[29] Goe, L., & Matlatch, L. (2014). Supercharging student success: Policy levers for helping paraprofessionals have a positive impact in the classroom. *Policy Snapshot*, Center on Great Teachers and Leaders at AIR.
[30] Giangreco, M. F. & Hoza, B. (2013). Are paraprofessional supports helpful? *Attention, 20*(4), 22-25.

number of FTEs of special education paraprofessionals ranges from zero in JSES [Juvenile Services Education System] schools to 1,381 in Montgomery County."[31]

Defining the roles paraprofessionals can and should play in supporting educators and students with disabilities and the assignment and allocation of paraprofessionals within staffing models are key.[32] Without explicit training and supervision, the use of paraprofessionals in the delivery of instructional services is unsupported by research on evidence-based best practices. Some alternatives to overreliance on paraprofessionals include reallocation of resources to hire more special educators, co-teaching, building capacity of teachers, peer supports, IEP clerks, and paraprofessional pools.[33] Maryland is one of 13 states that do "not provide any guidance that could support practitioners in making decisions about paraprofessionals. Six states, including most notably Kansas, California, New York, and Pennsylvania, provide comprehensive frameworks to guide decision-making around allocation of paraprofessionals and their roles.[34] Additionally, other states have issued guidance recommending that paraprofessionals not provide academic instruction to students with disabilities.

Discussion Questions: What standards for hiring, training, and utilizing paraprofessionals as part of students' IEPs could be established by MSDE to ensure that appropriately trained and supervised personnel positively impact student learning? What strategies could be employed to reduce overreliance on paraprofessionals?

[31] Willis, p. 83-84. This overreliance on paraprofessionals arises from what Michael Giangreco calls reactive rather than proactive staffing. See Giangreco, M. F., & Suter, J. C. (2015). Precarious or purposeful? Proactively building inclusive special education service delivery on solid ground [pdf]. *Inclusion, 3*(3), pp.112-131.

[32] For example, Washington State's 2022 guidance document on Best Practices for Planning Paraeducator Support details the roles and responsibilities of paraeducators in special education, necessary supervision and training, and research-based considerations about the utilization of paraeducators in special education. It lays out that paraeducators must be appropriately trained, closely supervised, provide only supplemental instruction, closely adhere to written plans, and focus on support of student engagement, independence, and safety.

[33] Giangreco (2013).

[34] McDermott, L., Cruz, R., & Feng, Z. (2023). A state-by-state document analysis of official guidance on paraprofessional allocation. *The Journal of Special Education, 57*(1).