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An Evidence-Based Path to Expanding High-Quality Pre-K in Michigan

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An Evidence-Based Path to Expanding High-Quality Pre-K in Michigan

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Policy Issue

Most of the eventual, large income-based disparities in student achievement are in place on the first day of kindergarten.[1] Research is clear that high-quality prekindergarten (Pre-K) is one of our most effective tools for narrowing these early gaps and putting all children on a path to school and life success.[2] In many respects, Michigan is already a national leader in providing state-funded Pre-K to children from families with low incomes and those with other qualifying factors.[3] However, in Michigan as across the nation, too many families are shut out of high-quality Pre-K due to costs and limited supply.

As the State of Michigan seeks to offer universal Pre-K (UPK) to all Michigan 4-year-olds,[4] we provide analysis of the current early learning landscape in the state, and we offer evidence-based recommendations to inform scale up. This policy brief represents a Michigan-specific path forward based on our book, *Cradle to Kindergarten: A New Plan to Combat Inequality*. It draws from our team's years-long engagement in several other states and cities similarly seeking to move their early learning systems forward,[5] as well as interviews with leaders in Pre-K systems in 10 other localities (see Appendix C).

Data Attribution: These research result used data structured and maintained by the MERI-Michigan Education Data Center (MEDC). MEDC data is modified for analysis purposes using rules governed by MEDC and are not identical to those data collected and maintained by the Michigan Department of Education (MDE) and/or Michigan's Center for Educational Performance and Information (CEPI). Results, information, and opinions solely represent the analysis, information and opinions of the authors and are not endorsed by, or reflect the views or positions of, grantors, MDE and CEPI or any employee thereof.

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Findings & Recommendations

1. Nearly 60 percent of Michigan 4-year-olds are not enrolled in publicly funded Pre-K and 40 percent do not attend any kind of formal Pre-K program.

2. All public Pre-K options in Michigan are targeted based on child and family characteristics.

3. Access to any kind of Pre-K varies widely across the state, with substantial access gaps evident in every region of Michigan.

4. Michigan ranks in the bottom 10% of states in providing inclusive preschool services to children with disabilities. Advancing a universal pre-K program that serves all children will require policy changes to promote inclusion.

5. Teachers in the state's Pre-K program pay a substantial penalty to teach Pre-K relative to their K-12 peers, amounting to an average of $17.5K less per year for state Pre-K teachers in public schools and $25K less per year for those in community-based programs.[6] Benefits also substantially lag K-12.

6. Michigan's state Pre-K program has a solid blueprint for quality already in place, via provisions such as coaching for all teachers and a BA minimum for Pre-K teachers. However, adjustments are needed to align the teaching and learning model with the best science of early education. These adjustments include using evidence-based curricula and exploring alternative assessment options.

Background

The research is clear that high-quality Pre-K boosts children's cognitive, academic, and social emotional readiness for kindergarten.[7] Benefits can be lifelong, on important outcomes like better health, increased educational attainment, higher earnings as adults, less involvement in the criminal legal system, and decreased intergenerational poverty.[8]

However, too few U.S. children are able to attend any kind of Pre-K, especially high-quality Pre-K, with children the farthest from opportunity the most likely to be shut out.[9] This disparity is one of the reasons children from disadvantaged backgrounds enter kindergarten over a year behind children from affluent families. Data from the Early Childhood Longitudinal Study (ECLS) show that nearly half of all children who entered kindergarten in 2010 had low literacy skills and about the same proportion had low math skills. Two-thirds of children whose family income was in the bottom 20 percent had low literacy and math skills.[10] The gaps in achievement test scores narrows somewhat in K-12, but ultimately, most of the eventual income-based gap in achievement is present on the first day of kindergarten.[11]

New public investments are especially needed in the wake of the historic COVID-19 global crisis. While enrollment in public Pre-K nationally and in Michigan has largely rebounded to pre-pandemic levels,[12] the pandemic profoundly affected young children, families, and the early childhood programs that serve them.[13] Many families with young children have experienced considerable financial and psychological strain, particularly those with lower incomes, those with children with disabilities, and families of color. Early childhood education programs have struggled with increased costs, unstable enrollments, higher family and child needs, increased teacher turnover and stress, and uneven public support.

As we describe in the next section of this report, Michigan is not immune from these broader trends. Thanks to strategic investments and policy decisions, however, the state has an unusually strong foundation from which to grow. Further, the Governor's Office and State Legislature has recognized the challenges wrought by the pandemic and has made multiple strategic investments in public Pre-K in Michigan in recent years, including $121 million in federal recovery funding to expand public Pre-K to more families and increase per-child spending.[14] These investments represent an important step but fall short of ensuring access to high quality Pre-K for all interested families in Michigan.

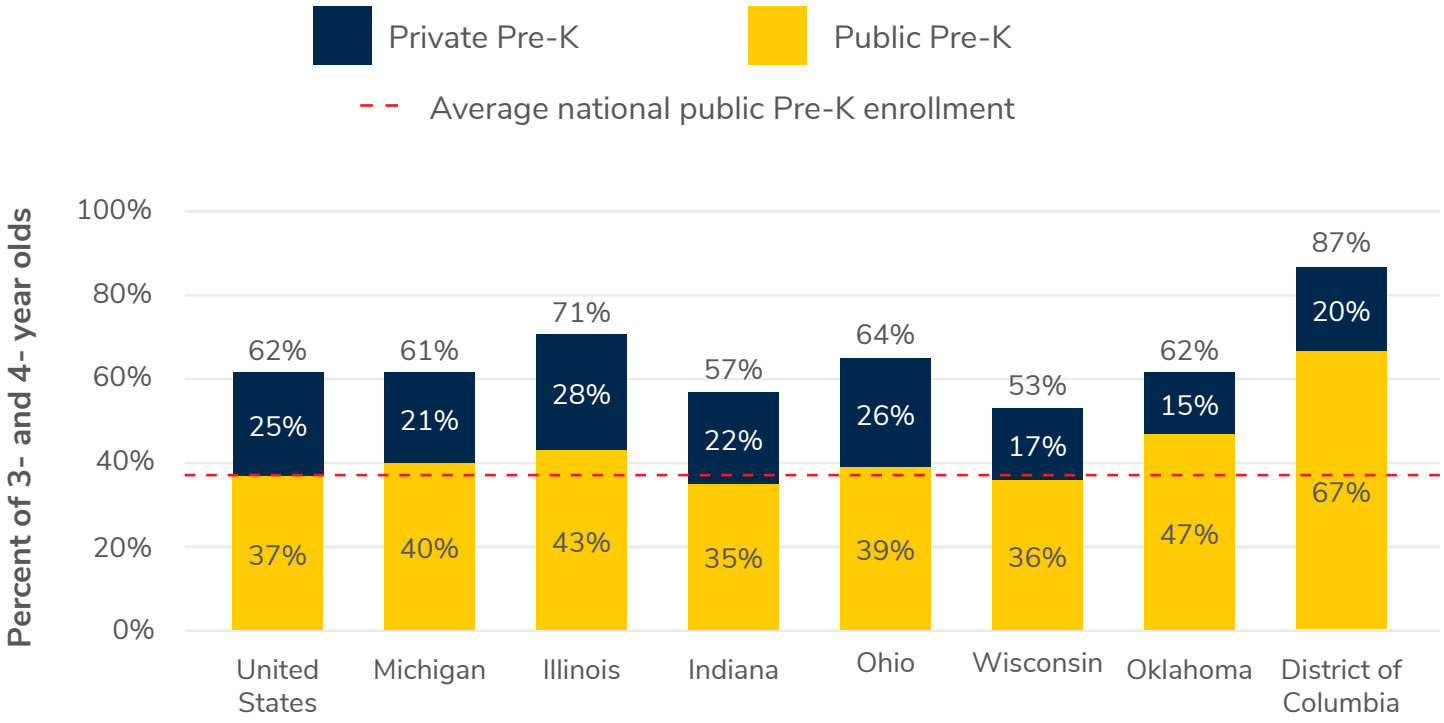
Our landscape analysis and recommendations aim to ensure a fairer start for all young Michiganders and position them to succeed in school and beyond. Our proposal emphasizes that it is essential to hold the line and advance quality as public Pre-K expands; access without quality is not real access.[15]

The Current Pre-K Landscape in Michigan

As shown in Figure 1 below, Michigan's overall preschool enrollment rate for 3- and 4-year-old children in 2019 was close to the national average (62% in the U.S. and 61% in Michigan).[16] Compared to other Midwestern states, Michigan preschool enrollment lags behind Illinois and Ohio but outstrips Indiana and Wisconsin. Enrollment in preschool in Michigan is substantially lower than in the District of Columbia (87 percent), which is the only locality in the U.S. with universal full-day public Pre-K for both 3- and 4-year-old children.

A slightly higher proportion of Michigan children attended public preschool (40%) than the U.S. as whole (37%). Michigan's public preschool rate is fairly similar to other Midwestern states. Oklahoma and DC, both of which have long-standing universal Pre-K programs, have higher rates of public preschool enrollment.

Figure 1. Percent of 3- and 4-year-olds attending public and private Pre-K in 2019

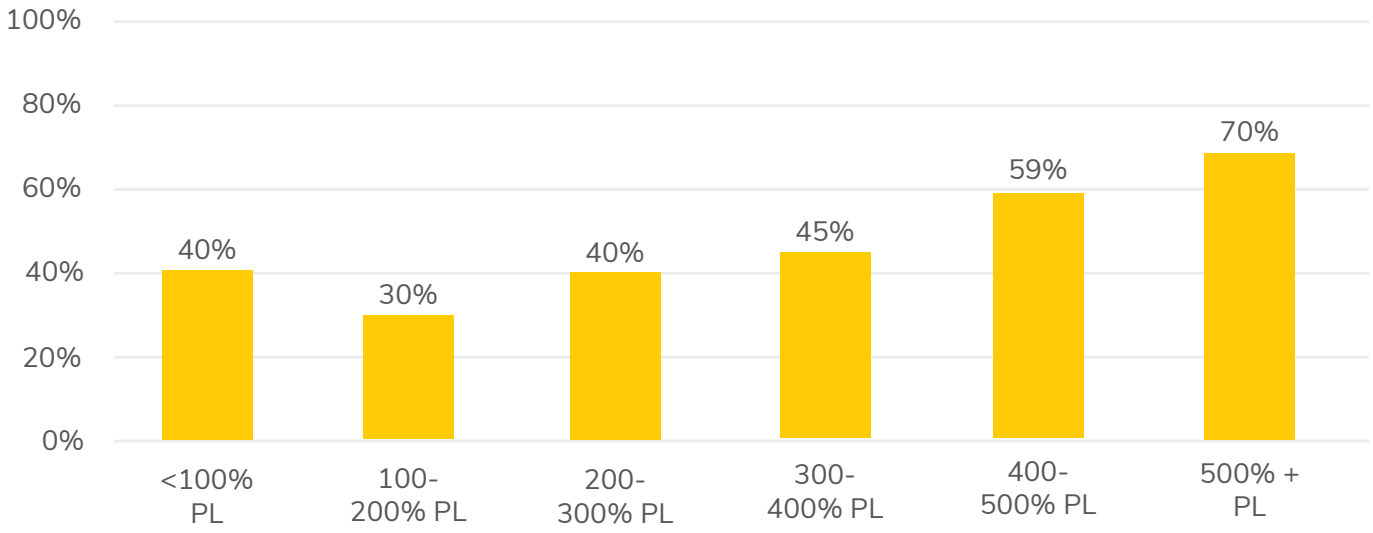


Note: Data for states excluding the District of Columbia comes from the 2019 American Community Survey (ACS) 1-year estimates. Data from the District of Columbia come from the 2019 American Community Survey (ACS) 5-year estimates. Percentages reflect public and private Pre-K enrollment as a percentage of all 3- and 4-year-old children. We combine 3- and 4-year-olds per the focus of *Cradle to Kindergarten* and because of ACS data limitations.

Source: U.S. Census Bureau. (2019). 2019 American Community Survey 1-year Estimates. *Table B14002*. Retrieved from https://data/census.gov/table. U.S. Census Bureau. (2019). 2019 American Community Survey 1-year Estimates. *Table B09001*. Retrieved from https://data/census.gov/table. U.S. Census Bureau. (2019). 2019 American Community Survey 5-year Estimates. *Table B14002*. Retrieved from https://data/census.gov/table. U.S. Census Bureau. (2019). 2019 American Community Survey 5-year Estimates. *Table B09001*. Retrieved from https://data/census.gov/table

There are large gaps in preschool access by family income in Michigan. As shown in Figure 2, fewer than 40% of Michigan children from families with low incomes (incomes at or below 200% of the FPL, or <$52,000 for a family of 4 in 2019) were enrolled in any preschool program prior to the pandemic.[17] For children from families with middle incomes between 200-400% FPL (i.e., $52K-$103K for a family of 4 in 2019), enrollment rates were slightly higher but still less than 50%. Among families with higher incomes, 59% of children from families with incomes 400-500% FPL ($104K-$130K for a family of 4 in 2019) were enrolled in preschool. For children from families with incomes 500%+ FPL ($156K for a family of 4 or more), 70% were enrolled.

Figure 2. Pre-K enrollment of children ages 3 to kindergarten entry, by family income levels in 2019



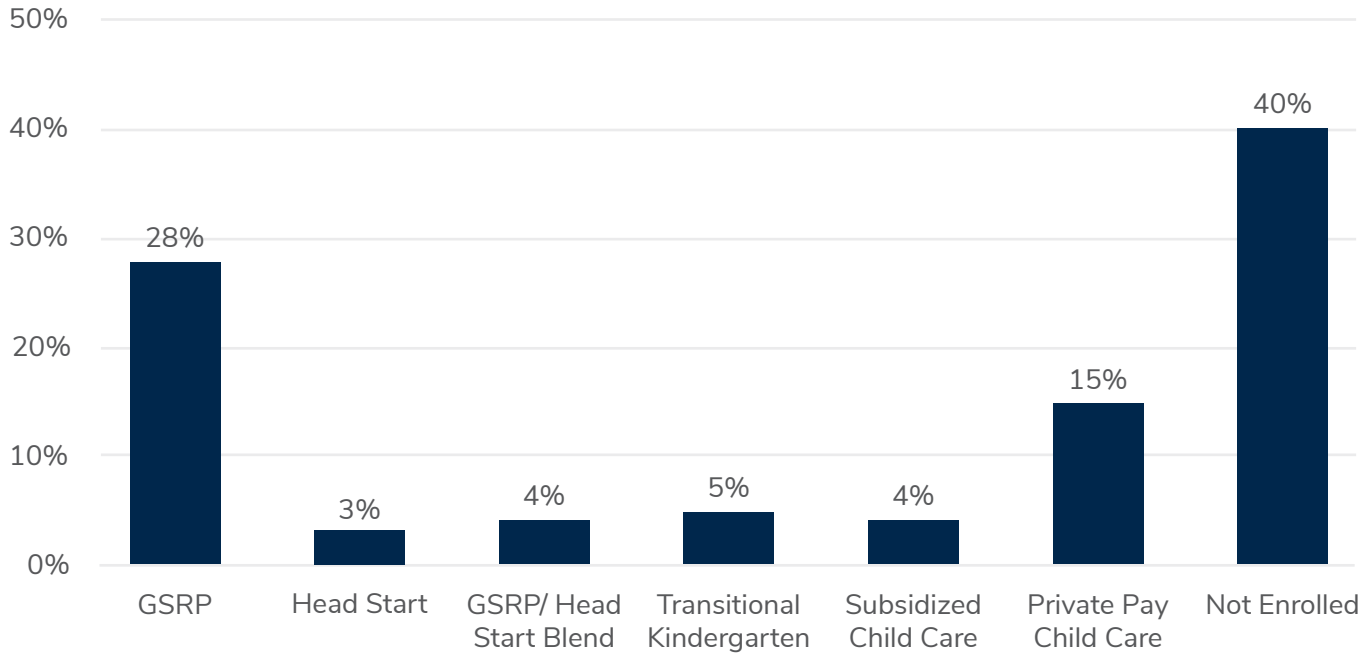
Notes: Percentages reflect the share of 3- and 4-year-olds within each income category that are enrolled in any kind of Pre-K or nursery school (public or private).

Source: U.S. Census Bureau. (2019). 2019 American Community Survey 1-year Public Use Microdata Samples. Retrieved from https://www2.census.gov/programs-surveys/acs/data/pums/2022/1-Year/. U.S. Census Bureau. (2019). 2019 American Community Survey 1-year Estimates. *Table B14002*. Retrieved from https://data/census.gov/table. U.S. Census Bureau. (2019). 2019 American Community Survey 1-year Estimates. *Table B09001*. Retrieved from https://data/census.gov/table

Approximately 59 percent of Michigan 4-year-olds do not attend a publicly funded Pre-K option. As we show in Figure 3, 28 percent of Michigan's 118,000 4-year-olds attend Michigan's state-funded Pre-K program (the Great Start Readiness Program); 3 percent attend the federally funded Head Start program; 4 percent attend a GSRP/Head Start blend program; and 5 percent attend the state's district-led Transitional Kindergarten (TK) program. In all, 41 percent of Michigan 4-year-olds attend a free, publicly funded early learning program the year before kindergarten. Additionally, 19 percent of 4-year-olds attend a tuition-based private program, with 4 percent of young Michiganders receiving a publicly funded tuition subsidy and 15 percent paying full price. Based on the data available, we estimate that the remaining 40 percent of Michigan 4-year-olds do not enroll in any licensed center-based Pre-K program the year before kindergarten.

Thanks to a longstanding partnership between the University of Michigan's Education Policy Initiative and the Michigan Department of Education,[18] we have more fine-grained data for describing 4-year-old enrollment — the target of current Pre-K policy proposals in Michigan — than are available in the ACS. See Appendix B for details on these data and our analysis.

Figure 3: Early education settings for Michigan 4-year-olds in the year before traditional kindergarten entry



Notes: The population of 4-year-olds in Michigan in SY 2022-23 is based on the number of 3-year-olds in an estimate from the 2021 American Community Survey, specifically 118,000 4-year-olds. Head Start enrollment is from the 2022-23 Head Start Program Information Report. GSRP, GSRP/HS blend, and TK enrollment are from administrative student records in SY 2022-23 from the Michigan Education Research Institute (MERI). TK enrollment is from MERI student data in SY 2021-22. Not all school districts with TK report student-level TK enrollment. For districts that do not report TK enrollment, we infer enrollment based on grade progression patterns as explained in Appendix B. The fraction of children in subsidized licensed childcare is from the Administration for Children and Families, US Department of Health and Human Services Fiscal Year 2020. Enrollment in private pay licensed child care is the difference between total child care enrollment (calculated from the 2015-2019 5-year American Community Survey) and estimated enrollment in publicly funded and subsidized licensed childcare.

Most of Michigan's publicly funded Pre-K options are available only to families with lower incomes and to children with disabilities. Michigan children primarily access publicly funded Pre-K through the following means:

- **Great Start Readiness Program** is Michigan's state-funded Pre-K program. It is managed by the Michigan Department of Education (MDE), though there is a shift in governance to a new state agency, MiLEAP, planned for late 2023.[19] In terms of program governance, the state designates intermediate school districts (ISDs) as grantees. Historically, GSRP has served children 4 days a week, 30 weeks per year, with 95 percent of children in a full-day program.[20] New state funds, however, have been allocated to expand it to 5 days per week and 36 weeks per year.[21] As described in detailed annual reports by a research team at Michigan State University, program sites include both public schools (66 percent of classrooms) and community based organizations (34 percent of classrooms).[22] The program operates in 99 percent of counties and prioritizes families with low incomes. Children with family incomes of less than or equal to 250 percent of the federal poverty level (FPL) make up 91 percent of the program (as of 2021-22). In 2021-22 GSRP operated in 2,524 classrooms and served 30,872 children across the state (and by our team's estimates, enrollment increased to 33,200 in 2022-23). In response to the pandemic, income restrictions were adjusted to allow for families with incomes up to 400 percent of FPL (for the 2020-2021 school year only) to enroll. As of the 2023-2024 school year, the income threshold was 300 percent FPL. Children can also gain access to GSRP on the basis of other factors including child disability status, parent education attainment, and home language.[23] In addition, up to 15 percent of children enrolled in GSRP in an ISD (or consortium of ISDs) may be from over-income families who do not qualify on the basis of other factors. ISDs determine a sliding scale fee for these children to enroll in GSRP.[24]

- **Head Start** is a longstanding, federally funded comprehensive child development program that primarily serves Pre-K-age children in families at or below the Federal Poverty Level (FPL), with up to 10 percent of children from families over this income threshold permitted. Head Start also prioritizes enrolling children with disabilities. In Michigan, Head Start enrollment was about 4,100 children in 2022-23.[25]

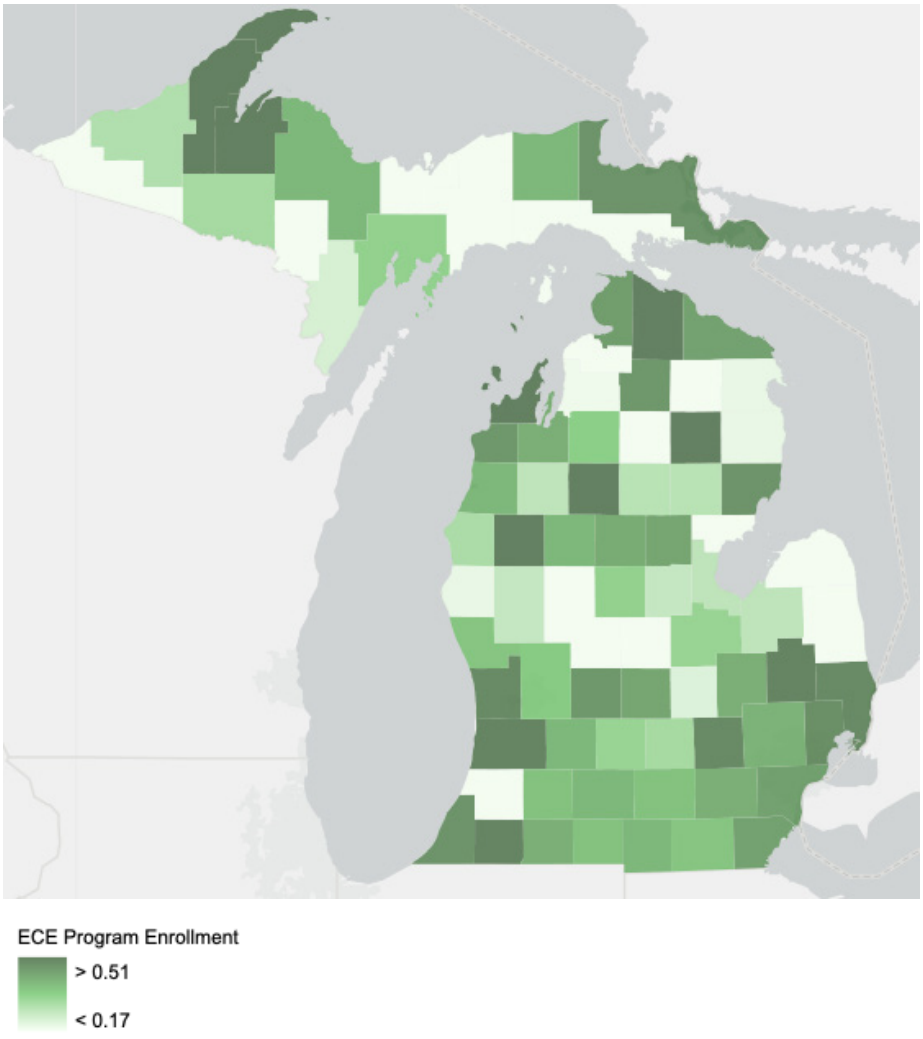
- **Head Start/GSRP blend** consists of classrooms that are funded through blended Head Start and GSRP funds. Both Head Start and GSRP program regulations apply to these classrooms, with the most stringent standards from either program adhered to.[26] By our estimates, in 2022-2023, approximately 5,200 children were served in Head Start/GSRP blended classrooms.

- **Transitional Kindergarten (TK)**, also known as Development Kindergarten or Young Fives in the state, is a district-led program open to children who turn 5 on or before December 1st. Districts decide whether to offer it and whether to offer it only to children with fall birthdays (i.e., Pre-K-aged children) or to admit spring/summer birthdays as well. Districts can also choose to use other selection criteria as well (i.e., 60% report using the child's previous preschool/child care experience and 60% report using an assessment to determine which students are offered a slot).[27] TK is funded by the state and districts just as traditional kindergarten is. In the 2022-23 school year, we estimate that TK was offered in around 360 school districts across the state and served about 5 percent of Pre-K-aged Michigan children (or about 6,300). Research shows that districts that offer TK in Michigan serve smaller proportions of children historically underserved by education systems than districts that do not offer TK.[28] However, within districts that offer it, there is considerable similarities in neighborhood income among TK enrollees, GSRP enrollees, and children who enroll in neither program. TK programs are district-initiated and district-led, with more variation in their design compared to Head Start and GSRP programs in the state.

- **Early Childhood Special Education** supports qualifying 4-year-olds under IDEA Part B, with about 6% of Michigan four year olds served in recent years across a variety of settings.[29] Per Michigan Administrative Rules (R340.1755 and R340.1756), early childhood special education may be provided for students with disabilities between the ages of 2.5 and 6 years in either a special education program or via services provided in an early childhood center, school, community, or family setting. In 2019, 28% of Michigan students with disabilities aged 3 through 5 years with an IEP received the majority of special education and related services in a regular early childhood program setting, while 37% attended a separate special education class, separate school, or residential facility.[30] Pre-pandemic, Michigan ranked in the bottom 10% states on providing inclusive services to young children with disabilities.[31]

Pre-K enrollment varies substantially across Michigan communities. In Figure 4, we show that enrollment in any Pre-K option at age 4 varies across Michigan, with proportionately few children enrolled in some counties (light colors) and very high levels enrolled in others (dark colors). In nearly every region of the state, there are a significant number of 4-year-olds who enter kindergarten with no prior Pre-K experience each year. We provide interactive maps that further capture this regional variation at https://arcg.is/1HLy0z.

Figure 4: County-level look at the proportion of Michigan 4-year-olds enrolled in any Pre-K in 2020-2021



Note: Map illustrates the share of 4-year-olds enrolled in the Great Start Readiness Program (GSRP), Head Start (HS) programs, GSRP/HS blended programs, Transitional Kindergarten programs, and licensed child care programs in SY 2022-23. Data sources are explained in Appendix B.

To illustrate geographic variation further, we calculated for each Michigan county (83 in total) the number of 4-year-olds, racial/ethnic demographics, the share of 1st-5th grade students who are considered economically disadvantaged by the state, and the percent of 4-year-olds who are enrolled or not in a public Pre-K option. We used these metrics to identify an example set of priority counties for expansion.[32] We based our selection on counties with higher concentrations of families with low incomes and lower proportions of 4-year-olds enrolled in any kind of Pre-K. We also included four counties with larger numbers of 4-year-olds — Genesee, Kent, Oakland, and Wayne — that also showed elevated need. Given the population of these counties, even smaller proportions of underserved children add up to significant community need, with potential for scaling efficiencies.

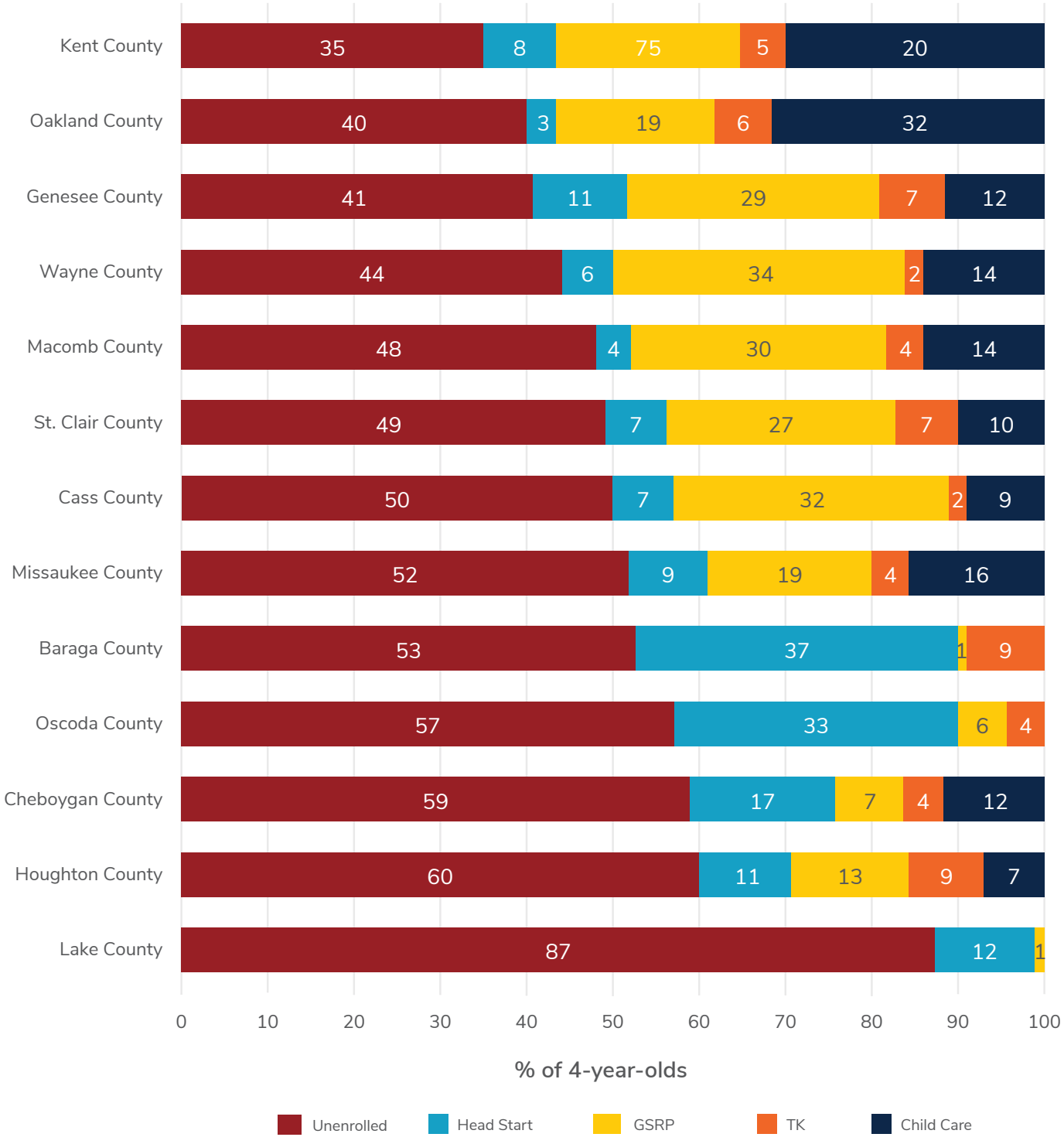
In Table 1, we provide a snapshot of the population size, racial/ethnic demographics, economic disadvantage of 1st-5th grade students, and (by our estimates) children enrolled in any Pre-K option in these counties. With the exception of Oakland County, over half of 1st-5th grade students in selected counties are considered economically disadvantaged, and there are substantial numbers of children not enrolled in any Pre-K option in all counties shown. As we show in Appendix A, these counties represent all the major regions in the state. Figure 5 (page 11) disaggregates the care setting types for 4-year-olds in these counties and reveals considerable variation in the proportion enrolled in any Pre-K setting and in specific setting types.

Table 1: Demographic and early care enrollment characteristics of priority counties

County	# of 4 y/os	Black	White	Hispanic	Percent economically disadvantaged	Percent enrolled in any Pre-K option	Percent not enrolled in any Pre-K option
High-need counties							
Lake	129	18%	76%	4%	83%	13%	87%
Houghton	405	2%	94%	1%	51%	40%	60%
Cheboygan	251	3%	86%	2%	75%	41%	59%
Oscoda	86	1%	95%	2%	81%	43$	57%
Baraga	81	2%	62%	1%	66%	47%	53%
Missaukee	188	1%	91%	5%	72%	48%	52%
Cass	514	11%	78%	7%	62%	50%	50%
St. Clair	1,675	9%	86%	4%	55%	51%	49%
Macomb	9,515	25%	65%	4%	56%	52%	48%
High-population counties							
Wayne	23,900	48%	39%	9%	72%	56%	44%
Genesee	5,064	34%	59%	5%	69%	59%	41%
Oakland	13,855	19%	60%	7%	34%	60%	40%
Kent	9,126	20%	55%	20%	55%	65%	35%

Notes: "Economically disadvantaged" is an MDE indicator denoting students who have been determined to be eligible for free or reduced-price meals via locally gathered and approved family applications under the National School Lunch program, are in households receiving food (SNAP) or cash (TANF) assistance, are homeless, are migrant, or are in foster care. We calculate race/ethnicity shares and "percent economically disadvantaged" using students in grades 1 through 5 in SY 2020-21. We calculate enrollment shares using data from SY 2021-22 and SY 2022-23, as described in Appendix B. The number of 4-year-olds in each county comes from the U.S. Census Bureau's 2021 county population estimates.

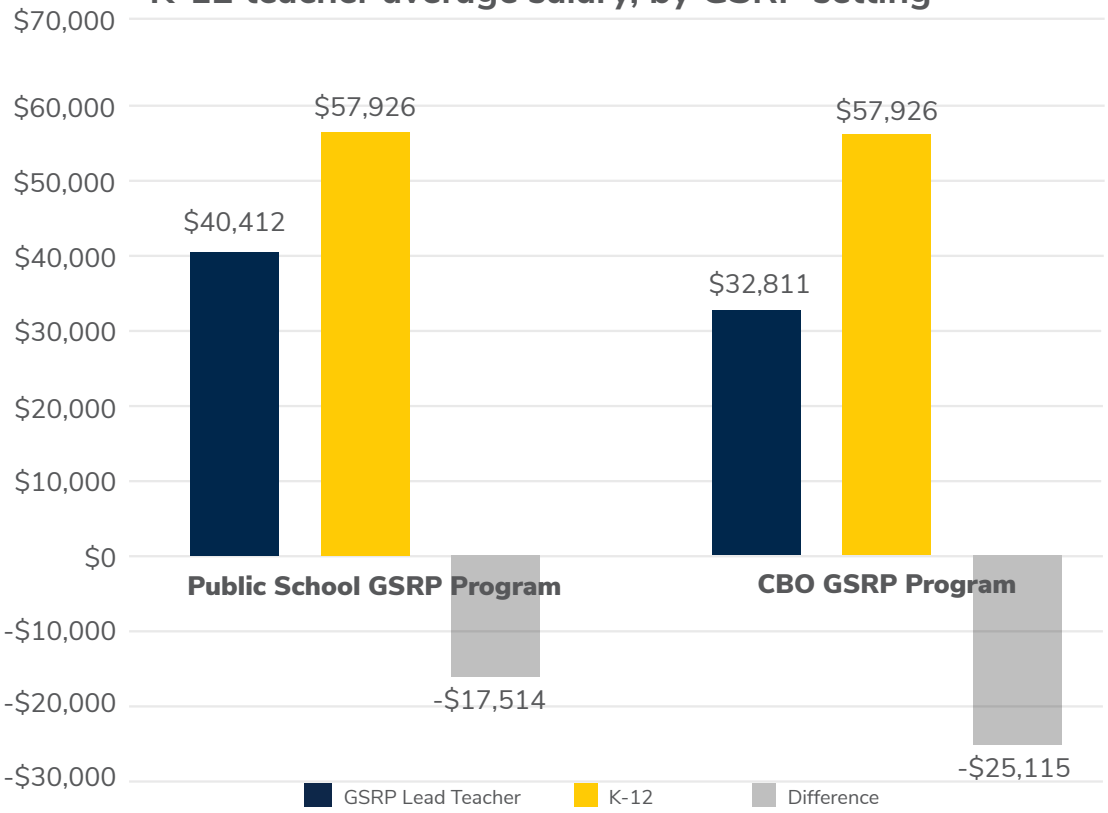
Figure 5: Early childhood education enrollment by setting type in example priority counties



Michigan's state Pre-K has a strong blueprint for quality but requires adjustments to match the best science of early education. There is very good news as Michigan moves towards universal Pre-K (UPK): Michigan's GSRP program is one of the country's strongest Pre-K programs. Michigan is one of only 5 states nationally to meet all 10 of the National Institute for Early Education's (NIEER) quality benchmarks.[33] Some of the program's strengths include offering coaching to all GSRP teachers, required universal developmental and health screenings, a BA minimum and specialized early education training for lead teachers, and requiring a CDA or AA in early education or child development for assistant teachers. However, NIEER has long emphasized its benchmarks are a floor on quality.[34] GSRP requires some changes to deliver on the full potential of UPK for Michigan's children.

One of these much-needed changes is pay equity with K-12 teacheres. Michigan meets best-practice recommendations to require a BA for its Pre-K teachers.[35] However, for salary, in 2021-22, lead GSRP teachers' salaries were 31 percent lower than K-12 teachers on average, with a range of 1 percent higher to 53 percent lower across intermediate school districts.[36] As we illustrate using data from the Michigan State University research team in Figure 6, these gaps are worse in community-based GSRP programs ($25K) than in public-school based programs ($17.5K). The median salary for a GSRP teacher with a master's degree is $50K, again substantially lagging the K-12 average that includes teachers of all educational/experience levels. Benefits for GSRP teachers also are not on par with K-12, particularly in CBOs. These disparities encourage teachers to move from CBOs to public schools and out of GSRP altogether, undermining program quality.

Figure 6: Differences in GSRP lead teacher median salary and Michigan K-12 teacher average salary, by GSRP setting



Note: Due to data availability limitations, the figure shows GSRP median salaries and K-12 average salaries, an imperfect comparison**. Source:** Wu et al., 2023.[37]

Michigan also has considerable room to grow in how its public early learning programs serve children with disabilities. Providing inclusive educational environments in which children with disabilities have equity of access to full and equal participation in public pre-K classrooms as their typically developing peers is a priority in federal law.[38] Presently, Michigan ranks near the bottom of states in providing early childhood special services in regular classroom settings.[39] A potential Pre-K expansion presents an opportunity to increase access to inclusive learning environments for all children. Key to doing so will be enacting key pieces of the action plan recently created by a diverse group of stakeholders for improving Michigan's Part B service delivery[40] and recommendations from a pilot inclusion effort recently undertaken by seven Michigan intermediary school districts.[41]

For teaching and learning, 84 percent of the state's GSRP programs use either Creative Curriculum or HighScope, neither of which is evidence based.[42] GSRP programs are also required to use observational assessment systems that take up a good deal of teacher time, with limited evidence of sound psychometrics and no evidence of positive effects on teacher practice or child outcomes.[43] These programmatic choices are by no means unique to Michigan. They represent the most common choices for curriculum and assessment nationally.[44] However, they are out of step with the best science of early learning.

Recommendations

This brief provides evidence-based recommendations to inform scale-up of universal, high-quality, voluntary Pre-K for all 4-year-old children in Michigan. Just as in our team's federal Pre-K proposal and in our Washington State UPK proposal,[45] we outline a pathway for a child-centered, evidence-based Michigan UPK program designed to give all the state's children a strong, fair start to their education.

Great Start Readiness Program (GSRP) UPK Expansion Policy and Practice Parameters

Eligibility	Open to all 4-year-old children in Michigan (must turn 4 by September 1 of a given school year, in accordance with the state's kindergarten cutoff date)
Cost	Free to families regardless of income or other factors
Structural quality provisions (ratios, qualifications, etc.)	• BA minimum for lead teachers with training in early childhood education • Compensation and benefits at parity with public K-12 educators for lead teachers • Continue mixed-delivery approach through qualified public schools and community-based organizations • Expanded marketing and enrollment options • Continue to prohibit expulsions • Full school day and week, plus before and after care for families needing it (service fees may apply for before/after care) • Expanded inclusion-model approach for serving young children with disabilities • Maintain and build from GSRP's many other strengths (including class sizes, teacher-child ratios, universal screening, specific minimum requirements for communication with families, protected time for teacher planning, no mixed-age classrooms, etc.)
Teaching and learning quality elements	• Play-based, evidence-based curricula with a clear scope and sequence • In-classroom coaching for teachers tied directly to evidence-based curricula • Direct assessments to inform instruction • Alignment with children's anticipated K-3 experiences
Evaluation	• Continue rich descriptive research that is already a GSRP hallmark • Add rigorous evaluation focused on important teaching and learning programmatic choices, assessment, quality tools, and equity of access to high-quality instruction for young children with disabilities and other historically marginalized groups and communities

Eligibility and Cost to Families. All Michigan children would be eligible for GSRP in the year that they turn 4 by September 1, the age cutoff date that is consistent with the state's kindergarten entry requirement. Similar to GSRP policy now, if there are unfilled seats as of September 1, children who turn 4 by December 1 can "waive in" to GSRP.[46] To provide universal opportunity, GSRP should be free to all families in the state.

Teacher Credentials and Compensation. GSRP should maintain its sound educational requirements for educators as of the 2022-2023 school year as the program expands.[47] For lead teachers, these requirements were either: (1) a BA minimum with a specialization in ECE or child development with a specialization in Pre-K teaching; or (2) a BA plus a valid Michigan teaching certificate and an ECE-specific endorsement. GSRP assistant teachers are required to have a CDA or an Associates Degree in Early Childhood Education or Child Development minimum.[48] In the GRSP expansion, Michigan should also provide pay and benefits equity for GSRP teachers with credentials matching K-12 educators.

The research on the effects of teacher education on classroom quality and on young children's learning gains is correlational and findings are mixed, with some studies suggesting benefits and others with null findings.[49] However, current GSRP requirements match recommendations from multiple leading institutions in the field for a solid foundation for quality, including the National Academies of Science and the National Institute of Early Education Research.[50] Nationally, 33 out of 62 state Pre-K programs require a BA for lead teachers and 19 require a CDA or equivalent for assistant teachers.[51] Michigan should continue its history as a state whose Pre-K program is seen as a leader by maintaining its current GSRP teacher education and training requirements.

"Michigan should continue its history as a state whose Pre-K program is seen as a leader by maintaining its currents GSRP teacher education and training"

A strong workforce also requires paying GSRP teachers what they are worth. The lack of pay and benefits equity is one reason that in Michigan and nationally, turnover rates among Pre-K teachers are much higher than among K-12 teachers.[52] In Michigan, GSRP teachers earn much less than their K-12 counterparts and thus are incentivized to leave for K-12 teaching positions as they gain experience. Professional development investments are lost when turnover is higher – a policy issue known as the "leaky bucket" problem. As we showed in Figure 6 of this report, the median salary for a GSRP teacher

is 31 percent less than the average K-12 teacher salary.[53] On average, GSRP lead teachers in public school settings make substantially more than their counterparts in GSRP community-based programs (~$7,500, or 20 percent more). Benefits also lag K-12 substantially, particularly for GSRP teachers in CBOs. For example, in 2021-2022, 85% of GSRP teachers in public schools had health insurance; in CBOs, it was 59%.

In addition to fueling turnover, these salary and benefits gaps make teacher recruitment more difficult and are one reason the GSRP teacher education/training requirements policy has not been fully implemented. Although the majority of GSRP teachers do have the requisite education and training, 18 percent of lead teachers were on a compliance plan and/or within 1-2 courses of meeting the requirement in 2021-2022.[54] For assistant teachers, the proportion was 28 percent not yet meeting the requirements. In terms of recruitment difficulties, in 2021-2022, the vacancy rate was 4 percent for GSRP lead teachers and 6 percent for assistant teachers.[55]

Going forward, Michigan should require all newly hired GSRP teachers to meet minimum requirements and GSRP teachers be paid on the same scale as their K-12 district counterparts. Across the country, benefits parity has been more challenging, particularly in CBOs.[56] Michigan potentially could help lead the nation by exploring options like dedicated supplemental grants to CBO Pre-K programs that provide employees health insurance and some threshold of paid time-off (such as 15 days) to defray some of these costs and incentivize their provision. Another option could be state-level pools for GSRP teachers. Where there are teacher shortages that persist in some areas despite these increases, the state can follow its established compliance plan approach, providing pathways for educators to earn the needed credentials as it does now and expanding these pathways.[57]

Regarding supply expansion, the state should consider prioritizing Pre-K teachers in its Grow Your Own grant program, which provides up to $10K in funding for each district employee working toward initial certification or certified teacher who wants to add an additional endorsement.[58] Other existing teacher pipeline supports that the state could expand include the Michigan Future Educator Fellowship[59] and T.E.A.C.H. Early Childhood Michigan Scholarship Program.[60] The state should also track centrally how teachers are moving through compliance plans and pipeline support

programs to identify successes and barriers and to make data-informed course adjustments where necessary. Presently, compliance plan progress is tracked at the intermediate school district level but not centralized.

Building the supply of teachers qualified to lead inclusion-model classrooms is also essential for Michigan to offer high-quality preschool to more young children with disabilities. As suggested in the state's recent Preschool Inclusion Collective Action Plan, in building supply, the state should explore braiding state Pre-K funds with reimbursement for preschool teachers credentialed in special education who serve as the teacher of record for an inclusive classroom.[61] Additionally, the state should consider implementing additional pay incentives for teachers with early childhood special education training and certification so as to attract and retain this critical workforce

In all expansion efforts, the diversity of the early childhood workforce (particularly relative to the K-12 workforce) is a strength that should be maintained, monitored, and further enhanced. Research shows that having a same-race teacher positively affects student achievement and family engagement for children of color, with particularly marked effects for Latino families and including children in the Pre-K years.[62] Research on Head Start also shows that significant progress towards higher credential requirements is possible in a relatively short amount of time while maintaining the racial/ethnic diversity of the workforce.[63] Notably, in 2022, the T.E.A.C.H. Early Childhood Michigan Scholarship Program supported nearly 1,500 educators in the state. A third were Latino and 45 percent were first-generation college students, suggesting that the state has already had some success in launching teacher pipeline programs that can help recruit a diverse workforce.[64]

"... the diversity of the early childhood workforce...is a strength that should be maintained, monitored, and further enhanced."

Service Delivery. Michigan should continue to fund a mixed-delivery system of public and community-based nonprofit private Pre-Ks to scale up GSRP. Nationally, all but one state with a state-funded Pre-K program (Hawaii) uses a mix of public and private sector Pre-K service providers. And in recent years, roughly 55 percent of children across the United States in state-funded public Pre-K programs attended a public-school program, and 45 percent attended a community-based organization program.[65] In Michigan, 67 percent of GSRP programs are in public schools and 71 percent of children attend GSRP in public school-based sites, with the remainder of sites and children in CBOs.[66]

Mixed-delivery systems offer practical advantages,[67] including:

- **Maximum parental choice.** Parents may prefer one setting type or pedagogic philosophy over another or prefer a site in a particular location. A community-based center may provide continuity from infant-toddler program services in which children may have been enrolled, simplify drop-off/scheduling for younger siblings, provide hours of service that better match parents' work schedules, and/or reflect the racial or cultural preferences of the family.
- **Increased capacity.** Some public school districts may face facility capacity constraints that limit their ability to meet the demand for Pre-K classroom space. Continuing Michigan's mixed-delivery approach would increase capacity to serve more children.
- **Child care service retention.** In some cases, public Pre-K expansion has diminished the availability and quality of birth-to-three child care services.[68] A mixed-delivery approach helps to mitigate this problem, particularly when strategic investments are simultaneously made in 0-3 care.

The same high-quality program standards, including compensation and teacher qualifications, should apply to all delivery types. Absent a consistent and equitable approach, experts have warned that the historical two-tiered system that has placed CBOs at a disadvantage relative to public school Pre-K programs will continue.[69] Backing up these concerns, a recent study of five leading mixed-delivery Pre-K programs found evidence that children from historically marginalized groups were disproportionately enrolled in CBOs; that teachers in public schools were more highly educated than those in CBOs; and that where there were differences in quality and children's learning gains, these favored public schools.[70]

Nationally, public school Pre-K teachers make ~$14,000 more per year than their CBO counterparts (per above, in Michigan, the differential is ~$7,500).[71] These pay differences destabilize staffing in community-based organizations by fueling high turnover, incentivizing teachers to leave community-based organizations in favor of public-school jobs.[72] Unequal treatment by delivery setting also can fuel mistrust, hindering the creation of an equitable, high-quality mixed-delivery system. Experiences in other localities have also shown that in expansions CBOs can view public Pre-K programs, particularly those that are public school-based, as unwelcome competition that may evoke disagreements over required programmatic elements and standards.[73] In turn, public schools sometimes view CBOs as less rigorous or less professional. However, a Pre-K expansion presents an opportunity to be seized; these potential conflicts and disparities can be mitigated by applying the same high standards across all delivery types, holding joint conferences and trainings across providers, and developing detailed operational standards. An additional option is a start-up fund for CBOs who want to become GSRP sites. In Boston, new CBOs receive $100K to make necessary improvements before they are funded to serve children.[74]

"...a Pre-K expansion presents an opportunity to be seized."

In addition, Michigan could explore expanding its GSRP programs specifically within religious schools which can add capacity to meet demand and expand parent choice. Partnering with yeshivas, Islamic academies, and the archdiocese was a key avenue for the success of New York City's rapid UPK expansion. Just as the state has piloted a public Pre-K model for 3-year-olds in recent years, the state might also consider piloting GSRP in family child care homes, a setting preferred by some families. Family child care homes generally constitute less than one percent of slots in the public Pre-K programs that allow them.[75] Further, Michigan-specific analysis shows that the per-child cost to deliver on quality is considerably higher in family child care homes compared to center-based Pre-K (~$9K more per child) due to economies of scale.[76] Nonetheless, Seattle has done careful work in piloting and studying a family child care option in its Pre-K program and Boston has just begun a pilot.[77] Most recent results in Seattle show lower average instructional quality in family child care homes than other public Pre-K settings,[78] underscoring why great care must be taken in this work. Michigan similarly could consider a small, carefully evaluated initial pilot for this setting.

Finally, in terms of governance, we recommend that the state continue its current intermediate school district (ISD)-centered approach. To date, this approach has led to GSRP programs in 99 percent of counties, with 67 percent public school-based providers and the remaining third in CBOs.[79] Nationally, Pre-K programs vary a great deal in their proportion of public school, CBO, Head Start, and family child care home Pre-K providers,[80] with local constraints like geography and supply often requiring flexibility around targets for setting type. Given the goal of expanding GSRP to all Michigan 4-year-olds who would like a seat by 2027, this is another area in which expansion would best be facilitated by building on the strengths of key components of GSRP.

Marketing and Enrollment. GSRP has an established approach, detailed in the GSRP Implementation Plan, for reaching families eligible for its targeted approach. Intermediate school districts work with programs to create outreach and recruitment campaigns that can be funded through GSRP funds (no more than 2 percent of an ISD's total grant).[81] This approach has had success in reaching 28 percent of children in the state, with waitlists in many communities.

However, equitable access to an expanded, universal GSRP program will require making sure all families of four-year-olds know that they are newly eligible and know where and how to enroll. Michigan can assist ISDs by mounting a strategic, statewide public awareness campaign, with materials customized to match the diversity of communities in language and ethnic/racial representation in ads. The state should also allow communities to experiment with a centralized application process, following cities like New York City and New Orleans.[82] Hybrids like those in Boston and Seattle are also possible, with some programs controlling their own enrollment entirely or partially (as some CBOs like to do) and other students assigned via a centralized application process.

Continue to Prohibit Expulsions. Nationally, the expulsion of Pre-K children substantially outpaces the rates of K-12 expulsions. Troublingly, these expulsions fall disproportionately on

children of color, particularly Black boys.[83] Much to GSRP's credit, expulsion from another program is one of the ways a child can qualify for GSRP.[84] Expulsion should be prohibited in GSRP as it expands, consistent with existing program standards.[85]

Full School Day, Week, and Year. GSRP should provide learning opportunities for a minimum of six hours per day, matching the day length of first-grade classrooms in the district as is currently required in the program.[86] This recommendation is backed by research, including evidence from a recent randomized trial in Colorado that shows Pre-K children in full-day classrooms achieve greater learning gains than their counterparts in half-day classrooms.[87] Currently, about 95 percent of GSRP children are in full-day programs.[88] If a locality can demonstrate adequate parent demand for a half-day option, however, this option should be permitted in the spirit of valuing and maximizing parent choice. The state should also explore requiring before and aftercare to meet the needs of working parents. Currently the provision of before and aftercare is a decision left up to local providers.

Historically, GSRP has served students 4 days per week and for 30 weeks per year. However, the approved state budget in 2023 provided an important down payment on these learning time expansions, providing GSRP programs with additional funds to serve students 5 days per week, 36 weeks per year, and the same number of hours as first grade classrooms in a given district.[89] Internal data in fall 2023 at the Michigan Department of Education showed quick progress in rollout out this expanded learning option (5,500 out of 36,000 enrolled GSRP slots, or 15%).[90] Moving forward, the model should continue its pivot to 5 days per week and to a minimum of 36 weeks per year to better match parents' work schedules and provide children with more learning time in the program.

Expanded Inclusion-Model Approach. Research shows that high-quality public pre-K programs can boost the school readiness of young children with disabilities as much or more than their typically developing peers.[91] GSRP expansion presents an opportunity for Michigan to become one of the top states for serving young children with disabilities alongside their typically developing peers in inclusive preschool settings. Given the state's starting point in the bottom 10% of states for preschool inclusion, however, several policy changes are necessary for this goal to become a reality.

Among these necessary changes is the prioritization of young children with disabilities for enrollment. ISD School Readiness Advisory Committees should include special education

representation. In addition, presently, a recommendation from an IEP team that a child be placed in an inclusive Pre-K setting does not guarantee placement in GSRP, in part due to limited slots across the state.[92] Notably, GSRP already recommends that programs follow best practice in limiting the proportion of children with disabilities to no more than a third, as well as initially holding the proportion to 25% to accommodate children who are diagnosed after the start of the school year.[93] As slots expand, maintaining these ratios while also increasing the proportion of children with disabilities enrolled and ensuring access to GSRP for children with disabilities will require policy changes to prioritize enrollment of children with disabilities. Services available within programs will also need to shift away from the "pull out" approach through which many Michigan children currently access services, and toward a "push in" approach where programs receive the necessary supports to serve students with disabilities together with their same-age peers. Increasing inclusion-model GRSP classrooms may also require that current GSRP class size caps and teacher-child ratios be maintained, similar to those in some other systems.[94] And finally, metrics on GSRP's expansion at the state, district, and ISD levels should also track enrollment of children with disabilities and the quality of their experiences within classrooms using tools like the Inclusive Classroom Profile.[95]

Coaching is also key to successful inclusion model classrooms. Here, there is an important pilot upon which the state can build, the Inclusion Builders Initiative which began in 2020 and included seven intermediate school districts (ISDs) in the state.[96] The initiative funded professional learning communities for practitioners and leaders, as well as a preschool inclusion and equity support specialist in each ISD trained in practice-based coaching to support classroom staff. A key, actionable recommendation out of this pilot effort to consider in the GSRP expansion was to develop two or three demonstration inclusive classrooms per ISD as learning labs for other staff.

More broadly, Michigan has one of the most restrictive definitions for a developmental delay diagnosis under Part B, which is the most common disability diagnosis among young children in most U.S. states.[97] Michigan uses a 20% delay threshold for Part C (0-3) services and a 50% delay threshold for Part B. Consequently, only .7% of Michigan children served under Part B have this diagnosis versus the national average of 1.8% and a range as high as 5.3% across states.[98] Serving children with disabilities equitably requires making sure children who need services are not left out. System integration across Part B, Part C, and K-12 services should be an important priority especially as the new MiLEAP agency reorganizes how 0-5 special education supports are administered in the state.

Build from GSRP Strengths. The expanded GSRP program should match the many current structural strengths of GSRP. For example, GSRP requires universal developmental and health screenings, a class size capped at 18, a staff-child ratio of 1:8, and a minimum of 15 hours per year of training for teachers.[99] GSRP's 4-year-olds only approach is aligned with research that suggests that 4-year-old children learn less in mixed-aged classrooms of 3- and 4-year-olds than in 4-year-old-only classrooms (though an exception is allowed for the handful of Montessori GSRP programs, as age mixing is an intentional aspect of the teaching and learning model in that philosophy).[100] The GSRP Implementation Manual is very detailed, providing guidance on many other issues that matter for strong program delivery, including minimum communication requirements with families, family participation groups, guidelines for blending funding streams with Head Start, and protected time for teacher planning. These parameters can help to build an expanded, structurally sound program that prepares all children for success in kindergarten and beyond.

Teaching Quality Elements. Two essential elements of Pre-K instructional quality are (1) curricula and (2) teacher professional development. For curricula, the state currently maintains a list of approved curricula that purport to cover all child developmental domains that GSRP programs must choose from. This list is based on a review process overseen by the state, as well as a law passed permitting the use of one curriculum.[101] In all, there are three approved curricula (Creative Curriculum, Connect4Learning, and HighScope) and two options that are better described as curriculum approaches/philosophies (Montessori and Reggio Emilia).[102] Most (84 percent) GSRP classrooms currently use one of two curricula — HighScope (39 percent) or Creative Curriculum (45 percent). These are more general, global curricula that do not follow a specified scope or sequence and that are not evidence-based.[103]

"Two essential elements of Pre-K instructional quality are (1) curricula and (2) teacher professional development."

Other curricula — play-based, domain-specific curricula that follow children's developmental trajectories and have clear scope and sequence — have repeatedly outperformed HighScope and Creative Curriculum in improving children's targeted developmental outcomes. This evidence comes from randomized trials around the U.S. and in several other countries, as well as from rigorous meta-analyses across trials.[104] Effective play-based, domain-specific curricula provide a higher "floor" of instructional quality; children with teachers who follow these curricula with at least moderate fidelity receive learning opportunities based on the best science of early childhood education. In addition to the empirical evidence supporting use of these curricula, their design also

matches the framework advanced by the National Association for the Education of Young Children which since the 1980s and updated regularly since then. The NAEYC Framework[105] emphasizes that there are known sequences in which children gain specific concepts, skills, and abilities; that familiarity with these sequences should inform teacher's practices; that good teaching is intentional and goal-oriented; and that teachers must know where each child is relative to classroom learning goals to be intentional about helping individual children to progress. Similarly, Pre-K workforce recommendations from the National Academies of Science emphasize training in child development within specific developmental domains (e.g., language, literacy, mathematics, and social-emotional skills) as well as training in instructional strategies that support development in those domains.[106] The most developed and researched path actualizing these recommendations in Pre-K programs to date is implementing proven domain-specific curricula supported by in-classroom coaching from a supportive mentor.

To narrow opportunity gaps and give all children the best start, GSRP should develop a shortlist of proven, evidence-based curricula and explicitly tie coaching to these curricula. To address the needs of the whole child, the state should support coherent combination of proven curricula. For example, for mathematics, Building Blocks and Pre-K Mathematics are rated by the What Works Clearinghouse as having positive effects on children's mathematics skills (Building Blocks has also been shown to boost children's executive function and oral language skills).[107] For language and literacy, several choices are rated as having positive effects in the What Works Clearinghouse. State funding could be used for experts to "bundle" curricula together (covering the whole child) for teachers so that they are not overwhelmed (i.e., provide detailed planning guides that explicitly show how to combine curricula across the school day). Bundling would streamline resources and increase focus on supporting teachers. As part of this process too, curricula should be reviewed for potential racial or cultural bias and adjusted where needed to be culturally responsive.

On teacher professional development, GSRP currently requires continuous quality improvement for teachers' professional development, including ongoing support from coaches. Nationally, only

18 out of 62 state Pre-K programs meet this quality benchmark.[108] This is yet another strength of the existing GSRP model: research shows that regular in-classroom coaching by a trusted mentor is the most effective strategy to improve a Pre-K teacher's practice.[109] Coaching works because more so than other professional developmental approaches like training only, it facilitates taking the information learned in training and transferring it effectively to real-world classroom conditions.[110] Adults learn best when given opportunities to discuss and reflect with others, applying new ideas and skills in practice while receiving feedback from an expert, and having effective practices modeled for them.[111] Critically, coaching linked to a proven *curriculum* is more beneficial to students in Pre-K settings than coaching on *general classroom practices*.[112]

Ideally, all Pre-K teachers would have ongoing, in-classroom coaching from an expert coach approximately twice a month. Currently, GSRP requires that a coach visits each classroom a minimum of three times per year when children are present, with monthly coaching for teaching teams based on a professional growth plan.[113] With changes in curricula (above), coaches should be trained in specific curricula bundles and should primarily be assigned to support that bundle. GSRP (as now) should continue its provisions to ensure coaches are well-prepared to help teachers improve the learning environment (e.g., how the classroom layout is impeding learning or aggravating behavior problems), in strategies for addressing challenging child behaviors, in how to build trusting relationships with teachers, and in classroom management strategies (limiting transition times, keeping children on task in centers, keeping whole group time relatively short, etc.). These are crucial pieces that, if not in place, can seriously undermine the quality of instruction. Coach-teacher ratios should be 1:10 or less to facilitate adequate attention to individual teacher and classroom needs.

Unfortunately, there is almost no research on optimal characteristics to guide localities in hiring coaches. GSRP currently hires early childhood specialists (ECS) who have a graduate degree in early childhood education or development and five or more years of relevant work experience and who then complete classroom coaching training.[114] The content of this training may require adjustments to other changes in the program, particularly around curriculum. Otherwise, the state can build on the current ECS model as GSRP expands.

Child Assessments. Assessments of children's learning are important for informing instruction and for meeting each child where they are. GSRP currently requires programs to use one of four approved tools, each of which takes an observational approach to assessment, in which teachers observe and record information about children in the context of classroom activities. Recent reporting show 46 percent of classrooms use the Child Observation Record and 54 percent use My Teaching Strategies (formerly known as TS Gold).[115] Teachers generally spend considerable

classroom and planning time to complete these measures for each child in the classroom. Yet, there is no rigorous evidence that these systems accurately and reliably capture children's gains, nor that they productively inform teacher practice.[116] As part of the GSRP expansion, the state should systematically review, pilot, and carefully evaluate alternative student assessment systems, particularly those that incorporate direct assessments in language, literacy, and math. As one example, the state of Virginia has partnered with the University of Virginia on a direct assessment that covers multiple domains.[117] The Gates Foundation has also funded a major new initiative in this area, with new assessments expected to be ready for testing in large-scale programs in the next few years.[118] It is also possible to select direct assessments across some child development domains and continue observational measures in domains like socio-emotional and self-regulation skills, though this would take state investment to coordinate.

> *"Michigan should also monitor equity of take-up and quality for children with disabilities and other historically marginalized groups and communities..."*

Alignment with K-3 Classrooms is Crucial. Aligning children's curriculum experiences so that they do not repeat in kindergarten what they have already learned in GSRP is critical to maintaining the Pre-K boost.[119] Some promising strategies the state should consider piloting and evaluating include joint professional development between Pre-K and kindergarten teachers; training kindergarten educators to use children's kindergarten readiness score data to differentiate instruction for individual students; explaining the Pre-K curriculum to kindergarten teachers; and adopting aligned curricula.[120]

Evaluation. Improving quality and building strong systems requires ongoing, rigorous evaluation. We know from decades of research that Pre-K "works."[121] What is needed now is for the field and evaluation work to "pivot to the how," focusing energies on which Pre-K models produce larger, more lasting learning gains for students.[122] In Michigan, through GSRP's existing partnership with Michigan State University researchers, there is a template for annual rich descriptive evidence on the program to build from as the program scales up – an approach that in our view is a model other states should learn from and that Michigan should continue to invest in.[123]

In addition, as GSRP scales up, additional evaluation work should compare specific programmatic choices for which there is not already a solid evidence base. For example, Michigan and the field could learn from studies that compare one evidence-based curricula bundle to an alternative evidence-based curricula bundle; from rigorous studies of the effects of assessment systems on

teacher practice and child learning; and from studies of the effects of different enrollment system approaches to equitable program access. Michigan should also monitor equity of take-up and quality for children with disabilities and other historically marginalized groups and communities, as research on other Pre-K systems shows that these groups can experience more access barriers than their peers.[124]

Michigan also has an opportunity to be a leader and innovator on the important question of how best to measure quality. Quality Rating and Improvement Systems (QRIS) nationally are not predictive of gains in child outcomes.[125] Likewise, observational quality tools do not consistently predict improvements in child outcomes either.[126] Measurement of fidelity to an evidence-based curriculum is one possible approach that has shown some promise but needs more testing and evaluation.[127] Evaluation of critical issues like these via a strategic learning research agenda should be prioritized from the beginning, ideally within a research-practice partnership approach.[128]

Phase-In Considerations. A universal Pre-K expansion in Michigan would target children in the last three bars of Figure 2 – those not in any public Pre-K program, or 59 percent of Michigan 4 year olds (~70,000 children). Because Pre-K programs are voluntary, take-up is never 100 percent. Some families prefer a private Pre-K program, and others may not send their child to Pre-K at all. If Michigan were to enroll 75 percent of 4-year-olds in a public option, it would be the top public Pre-K enrolling state ever in the country.[129] Presently, we estimate that the state has 6,800 unfilled public Pre-K/Head Start seats and that the newest expansion passed in 2023 will add 5,600 more seats. In all, approximately 27,000 new seats will be needed.[130] At 18 students per class (the current GSRP cap), that represents about 1,500 new classrooms, 1,500 new lead teachers, and 3,000 new assistant teachers in the coming years under existing GSRP ratio and class size requirements. On average, 75% enrollment of Michigan 4-year-olds in GSRP would require 18 new GSRP lead teachers per county (with a range of 0-309).[131]

Expansion of GSRP should be prioritized in communities with: (1) higher concentrations of families with low incomes; and (2) lower proportions of 4-year-olds enrolled in any kind of Pre-K. We

also recommend prioritizing counties with larger numbers of 4-year-olds (i.e., smaller proportions of underserved children in these communities adds up to significant community need and can provide scaling efficiencies). We provided an example of how these communities might be selected in the first half of this brief (see Table 1). Within all communities, as we noted in our inclusion recommendations, children with disabilities whose least restrictive setting is an inclusion or regular education classroom should be prioritized for GSRP slots.

Costs and Tradeoffs. Rigorous cost analysis with estimates for a high-quality Pre-K in Michigan will be needed. In fiscal year 2021, Michigan's per-pupil expenditure for K-12 was $14,347, across federal, state, and local contributions.[132] The Michigan State Legislature recently passed an increase in per child funding for GSRP to match the state's base allowance for K-12, which is just $8,700. To scale GSRP in line with our recommendations, Michigan will need to find avenues for bringing GSRP expenditures to match K-12 expenditure levels. These avenues could entail adjusting the pace of expansion to serve higher-need areas first, until the program can be fully funded at an adequate average per-pupil cost. Many states and localities that have moved to universal Pre-K or expanded it substantially have done so with funding for Pre-K in close alignment with K-12 spending, including New Jersey, New York City, Seattle, and Boston.

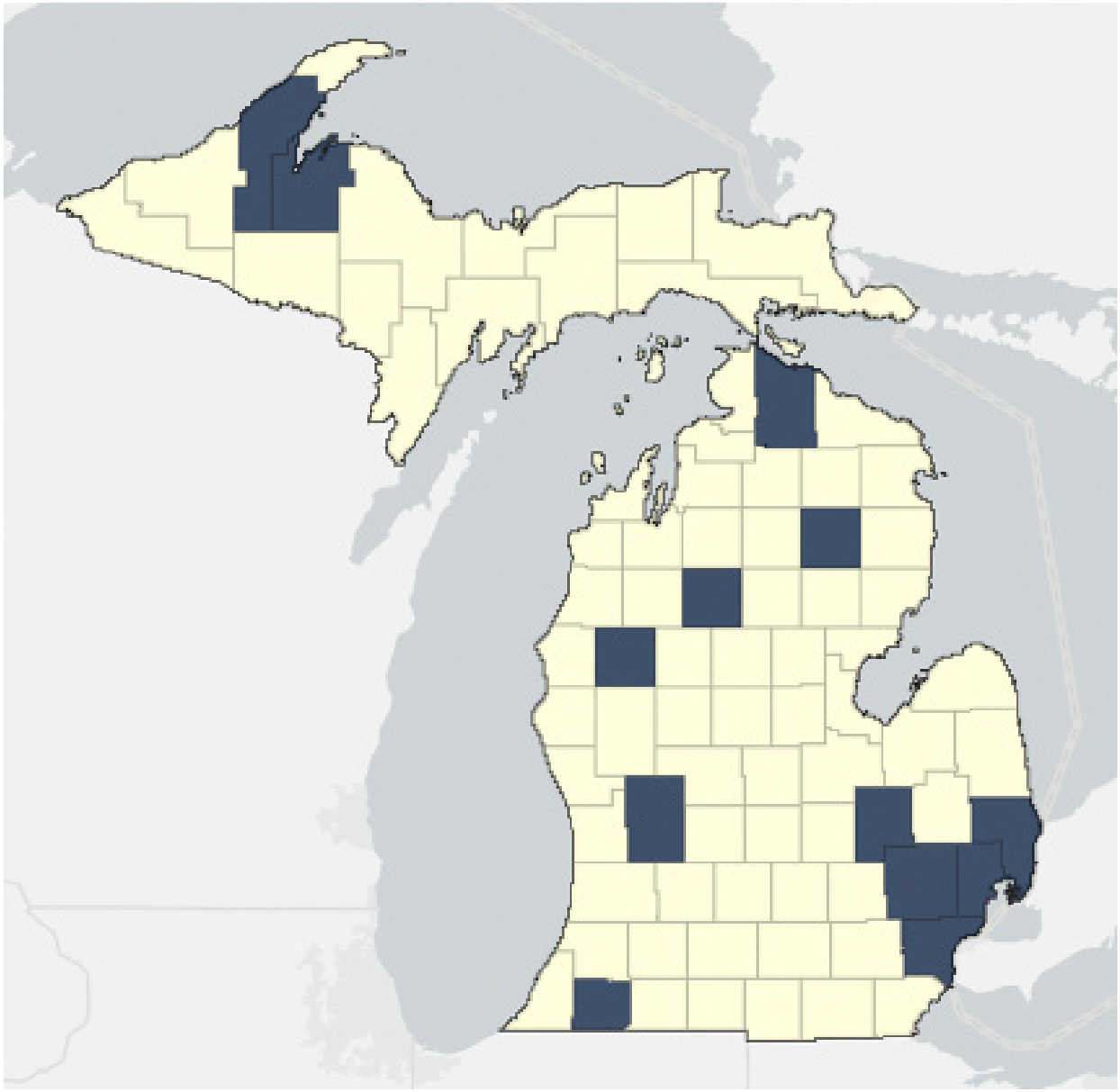
Looking Ahead

As the state expands Pre-K for 4-year-olds, early learning options for 3-year-olds should be on the policy agenda. Gaps in access to high-quality care options at age 3 are larger than at age 4 across the country, the learning gains by 3-year-olds in preschool education are as high or higher than those made by children at age 4, and most children whose parents can afford preschool nearly invariably are providing their children with the benefits of 2 years of preschool education.[133] So far, Washington DC is the only locality to fully offer universal access for 3- and 4-year-olds, while other jurisdictions such as New York City provide robust access to children at age 3 while having universal provision for 4-year-olds. Michigan has been piloting a public Pre-K option for 3-year-olds called Strong Beginnings that has enrolled a few hundred children per year.[134] This effort offers a model to consider as the state moves forward towards a coherent 0-5 system.

The evidence is clear: High-quality Pre-K improves children's readiness for kindergarten and can have life-long benefits. In Pre-K expansions, holding the line on quality is essential if Pre-K investments are to close early opportunity gaps. Access without high quality is not true access. An expanded, high-quality public Pre-K program is one important path to a more fair, equitable start for Michigan's children.

Appendix A

Figure 1: Geographic distribution of example priority counties



Note: Priority counties shown in blue.

Appendix B

Data Appendix

In this appendix, we provide more detail on our construction of program enrollment statistics for Michigan 4-year-olds. Our methodology draws from several sources, combining publicly available data with administrative student records from the Michigan Education Research Institute (MERI). As necessary, we make data-driven assumptions to fill in gaps in the data. Ultimately, our methodology produces enrollment estimates for every major category of licensed child care in the state.

As with all estimates, ours are inherently uncertain. The first source of uncertainty is measurement error. All the underlying data we draw from contain some measurement error due to misreporting, data entry mistakes, etc. The second source of uncertainty stems from assumptions we make for some care types due to data limitations. The TK and "other licensed child care" estimates are more uncertain than the GSRP and Head Start estimates because they require more assumptions to estimate enrollment. Similarly, county- and district-level estimates are more uncertain than state-level estimates because we must make assumptions, in some cases, to allocate state-level enrollment to local areas.

Head Start. Our primary source for Head Start is the 2022-23 Head Start Program Information Report (PIR). The PIR data contain information on enrollment and capacity (i.e., funded slots) for every program in the state. We limit our focus to enrollment in regular Head Start programs, meaning we drop Early Head Start, which serves children younger than our focal age, and other programs like Migrant Head Start that account for a very small fraction of slots in Michigan.

The PIR data do not distinguish between enrollment in Head Start vs. Head Start/GSRP blend centers. As we discuss more below, we use state administrative data to obtain enrollment in blend programs. Our numbers for non-blend Head Start subtract blend enrollment from PIR enrollment.

We make one adjustment to the PIR enrollment counts. For some programs, reported enrollment exceeds reported capacity. This may be partly due to measurement error, but it may also reflect a difference in the way enrollment and capacity are defined. Capacity is defined as a "point-in-time" measure, capturing how many children could enroll at any given time. On the other hand, enrollment includes all children who enroll over the course of a year. If there is enough enrollment turnover throughout the year, reported enrollment may exceed reported capacity. To reduce the influence of turnover on our enrollment estimates, we adjust enrollment down when it exceeds capacity. Specifically, we reduce enrollment at every age level—maintaining enrollment ratios across ages—until total enrollment equals total capacity.

Unlike enrollment, capacity is reported in aggregated age groups. To impute capacity for 4-year-olds, we assume the capacity for each single year of age is proportional to its enrollment. In other words, if 4-year-olds account for a given share of enrollment in a given program, we assume they account for the same share of capacity.

Measuring enrollment and capacity at the sub-state level requires some imputation. When a Head Start program operates buildings in multiple counties, we cannot observe the share of enrollment in one county vs. another. We do, however, observe the location of each building a program operates via the Head Start Center Locator, an online tool run by the U.S. Department of Health and Human Services.

We allocate enrollment and capacity to counties in proportion to the number of centers in each county.

Great Start School Readiness Program. To calculate enrollment in GSRP, we use administrative student records from the 2022-23 school year, shared with us by MERI. These data contain provider license numbers, flags for GSRP program type, and building codes for programs run in school buildings. The program type flags allow us to separate regular GSRP enrollment from enrollment in Head Start/GSRP blend programs.

To calculate GSRP enrollment at the intermediate school district (ISD) level, we merge on ISD codes from a dataset that contains both provider license numbers and ISD codes. This publicly available dataset comes from the state's Great Start to Quality initiative. This merge is successful for more than 98 percent of students. Most of the remaining students attend GSRP programs that have school building codes, which allow us to identify their ISDs. After assigning students to ISDs, it is straightforward to calculate ISD-level enrollment.

We obtain GSRP capacity numbers from a publicly available report by the Michigan Department of Education. The report, titled "Great Start Readiness Program (GSRP) 2022-23 State Aid and Federal Slot Allocations Including Transportation," contains the number of GSRP half-day slots each ISD requested funding for in fiscal year 2023. We divide the half-day slots by two to convert them to full-day slots.

Our estimates of GSRP capacity combine blend and non-blend programs. To impute capacity for each type of program separately, we assume the ratio of blend to non-blend capacity (unobserved) is the same as the ratio of blend to non-blend enrollment (observed).

Head Start/GSRP blend. Our estimates for Head Start/GSRP blend programs are constructed in the same way as our estimates for regular GSRP programs. We simply use the program type flag in the MERI 2022-23 student data to examine blend programs rather than non-blend programs.

Transitional Kindergarten. Our primary source for TK enrollment is the student-level MERI dataset. These data include indicators that should, in theory, tell us when a student who is listed as being in "grade 0" is in traditional kindergarten vs. TK. However, not all school districts and charter schools with TK use this indicator to report student-level TK enrollment.

Given the measurement error in the MERI TK variable, we undertook an extensive data triangulation process to verify which districts and charters had TK programs in SY 2021-22. This process involved reviewing district websites and communicating with district staff via email and phone calls. Ultimately, we categorize districts and charters as having TK if they report at least 10 TK students in the administrative data in SY 2021-22 or if we confirmed the existence of a program via outreach. Our inspection of the data suggests that student-level enrollment information is fairly reliable in districts that report TK enrollment in the data. Because our best information about the existence of TK programs is for SY 2021-22, we use this year to measure TK enrollment rather than SY 2022-23.

For TK districts that report student-level TK enrollment, aggregating to the county or ISD level is straightforward. For TK districts that do not report student-level enrollment, we infer TK enrollment based on grade progression patterns. If a student appears in "grade 0" in SY 2021-22 and SY 2022-23, they either enrolled in TK and then kindergarten or they enrolled

in kindergarten and were then retained. We can not distinguish between these two possibilities in TK districts that do not report student-level enrollment. Therefore, among students who repeat grade 0 in TK districts that don't report, we assume the kindergarten retention rate is the same as the average rate in TK districts that do report. This method produces an estimate of TK enrollment for every TK district that does not report student-level enrollment, which can then be aggregated to the county or ISD level.

Finally, note that many students enroll in TK even though they are old enough to enroll in kindergarten (without a waiver). We restrict our attention to TK enrollees who are too young for kindergarten (without a waiver) based on state guidelines (i.e., those born between September 2 and December 1) since our focus is on Michigan's 4-year-olds.[135]

Other licensed child care. Our best data on other licensed child care programs come from Michigan's Department of Licensing and Regulatory Affairs (LARA), which keeps records on all licensed child care providers in the state. Among the universe of child care providers, we restrict our attention to programs that serve 4-year-olds, operated in SY 2022-23, and are not Head Start or GSRP. The LARA data has information on capacity, but not enrollment. To estimate enrollment, we use information from the American Community Survey (ACS). We then combine our state-level estimate of enrollment with our county-level capacity estimates to produce county-level enrollment estimates.

Reported capacity in the LARA data is combined across every age a program serves, so we must make an assumption about the share of a program's capacity that is for 4-year-olds. We assume capacity is allocated in proportion to the rates at which Michigan children of each age enroll in child care. For example, if a program serves 4- and 5-year-old children, and 4-year-olds are twice as likely as 5-year-olds to enroll in child care, then we would allocate twice as much of a program's overall capacity to 4-year-olds. We obtain relative rates of enrollment across ages from a publicly available table titled "FY 2020 Preliminary Data Table 9 - Average Monthly Percentages of Children In Care By Age Group," published by the Office of Child Care (a unit within the U.S. Department of Health and Human Services). The table combines enrollment for children ages 6 to 12, so we make a further assumption about relative enrollment rates within that age range. Another limitation of this table is that it only accounts for enrollment funded by the Child Care and Development Fund and so may not be representative of all child care enrollment. The distribution we ultimately use is as follows:

Age	Assumed share of all children in child care
0	5%
1	10%
2	13%
3	14%
4	13%
5	10%
6	6%
7	6%
8	5%
9	5%
10	5%
11	4%
12	4%

Note: Assumptions based on https://www.acf.hhs.gov/occ/data/fy-2020-preliminary-data-table-9

After obtaining 4-year-old capacity for each provider, it is straightforward to use the county variable in the data to aggregate enrollment to the county level.

Next, we estimate enrollment in other licensed child care using information from the American Community Survey. There are roughly 118,000 3-year-olds in the 2021 ACS, so we estimate there will be this many 4-year-olds in SY 2022-23. We separately calculate that roughly 60 percent of Michigan 4-year-olds enrolled in some type of formal child care in the 2015-2019 ACS (i.e., the most recent 5-year ACS release that does not include COVID-19 pandemic years). Combining these figures gives us the number of 4-year-olds enrolled in any type of child care. We then subtract out our estimates of GSRP, Head Start, Head Start/GSRP blend programs, and TK enrollment to obtain our estimate for other licensed child care enrollment.

Our initial estimate of licensed child care enrollment is at the state level. To allocate state-level enrollment to counties, we assume enrollment follows the same distribution across counties as capacity.

Lastly, we split our state-level enrollment estimate into "private pay" and "subsidized" using more information from the Office of Children. A table titled "FY 2020 Preliminary Data Table 1 - Average Monthly Adjusted Number of Families and Children Served" provides information on the number of children (of any age) in Michigan enrolled in subsidized licensed child care. Combined with information from "FY 2020 Preliminary Data Table 9," we can compute the number of 4-year-olds in Michigan in subsidized licensed child care. Our estimate for private pay child care is then our total estimate minus our subsidized estimate.

Not enrolled. We calculate the number of 4-year-olds in Michigan not enrolled in any formal child care as the residual of all our other estimates. Beginning with 118,000 4-year-olds—taken from the 2021 ACS, as described before—we subtract our estimates of enrollment in GSRP, Head Start, Head Start/GSRP blend programs, TK, and other licensed child care programs.

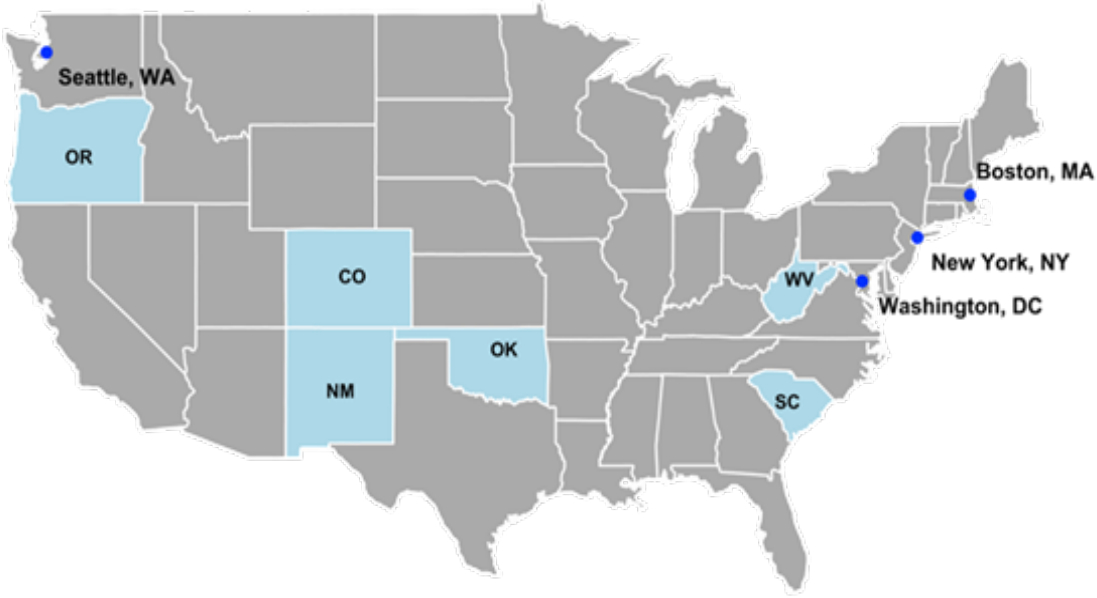
Appendix C

Background Interviews with Localities

To inform this brief, our team conducted background interviews with leaders involved in 10 different large-scale Pre-K systems, as shown in the map below. These localities were chosen to balance a number of factors that affect program success, such as pace and timing of scale-up, quality, number of children served, urbanicity/rurality, and demographics.

Background interviews included questions on lessons learned, successes, and challenges regarding Pre-K expansion and implementation, particularly around important decision points such as enrollment strategies, workforce, mixed-delivery systems across public schools and community-based programs, inclusion, program design elements (curriculum, ratios, coaching, other professional development, etc.), and governance. These background interviews pointed us to some specific best practices and policies by localities that are cited in the recommendations section of this report.

Figure 1: Localities included in background interviews



Some broad themes emerged across these interviews, as well as from the team's broader knowledge of early education policy, practice, and research. These included:

Workforce education and training: Localities have generally used Pre-K expansions as opportunities to increase the educational and training requirements of the teaching workforce. More concretely, this tends to entail a BA minimum for lead teachers, consistent with the recommendations of the National Academy of Sciences and the National Institute for Early Education Research.

Pathways for educators: Raising the bar on teacher education and training has also required new investments and innovative thinking on pathways to a BA and beyond for both current preschool teachers and the next generation of preschool teachers.

Compensation: Many localities have used Pre-K

expansions as opportunities to raise teacher pay, and to pay Pre-K teachers with the same credentials as their K-12 counterparts with parity. Ensuring benefits parity across all Pre-K settings has proven even more challenging. Pay is seen as critical to recruiting and retaining a high-quality workforce.

Mixed-delivery approach: As cited in our report, nearly all states with public Pre-K programs use a mixed-delivery approach with classrooms in public schools and community-based centers. This approach has many benefits, like expanded choice for parents, faster scale-up, and stabilization of the 0-3 workforce. Ensuring equity across settings has been challenging in large-scale programs but is essential for delivering on high-quality experiences for all children.

Inclusion: Increasing the inclusion of preschoolers with disabilities alongside their typically developing peers has been a priority in many Pre-K expansions, requiring specific investments and policy changes.

Importance of piloting and evaluation: The research and practice base for early education is expansive, but it does not cover all the important policy and practice issues that localities must grapple with when implementing expanded high-quality Pre-K. When faced with uncertainty around a particular decision point, localities tend to pilot and carefully test programmatic element options.

Facilities: Localities tend to make one-time capital investments where needed during Pre-K expansions. Facilities tend to be a minor cost driver at start-up, relative to other investment categories, and especially over time. Facilities are not usually a major barrier to expansion, though specifics of needed investments depend on mixed-delivery policies and variation in the respective capacities of public schools and community-based programs.

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[130] We calculated the number of seats needed beginning with the number of 4 year olds from the 2021 ACS (118,000) minus our estimates of the number enrolled in any kind of public Pre-K (48,787). Then, we calculated the number of 4 year olds unenrolled in public Pre-K that the state would need to enroll to reach 75% enrollment (~39,790). We subtracted from this number our estimated excess capacity of GSRP and Head Start (6,817 seats) and the number of new GSRP seats funded by the state for the 2023-2024 school year (5,600). This left ~27,000 new seats that would be needed for the state to reach 75% enrollment of 4 year olds in a public Pre-K option. These estimates assume continuance of GSRP/Head Start blend programs at the current level. Notably, the proportion of GSRP/Head Start blend slots has been dropping over time, as some Head Start sites pivot to serving more three year olds (Personal communication, Richard Lower, October 20, 2023). Further reduction would require additional new seats for four year olds.
[131] We assumed to reach 75% enrollment of 4 year olds statewide that 75% of four year olds in each county would enroll in GSRP. We assumed new GSRP seats funded for 2023-2024 would be distributed across the state proportional to the 4 year old population in each county. We also made assumptions about how unfilled GSRP (at the ISD level) seats map to county level, as ISD boundaries and counties do not overlap perfectly. Otherwise, our county-level estimates were calculated in the same way as our statewide-estimates as described in footnote 130.
[132] Michigan estimates taken from: U.S. Census. (2023). *How did COVID-19 affect school finances?* https://www.census.gov/library/visualizations/interactive/how-did-covid-19-affect-school-finances.html
[133] Chaudry, A., Morrissey, T., Weiland, C., & Yoshikawa, H. (2021). *Cradle to kindergarten: A new plan to combat inequality*. Second edition. New York, NY: Russell Sage.
[134] Levin, K. (2022, June 8). "Michigan tried preschool for 3-year-olds, but will the idea survive?" *Chalkbeat*. https://detroit.chalkbeat.org/2022/6/8/23158843/michigan-strong-beginnings-preschool-3-year-old-pilot
[135] The state provides funding to school districts for children born between September 2 and December 1 who waive into kindergarten. However, our data are at the month of birth level, so we limit our sample to children born any day in September, October, or November.