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Let's Work Together: Documenting Collaboration in Michigan's Early Childhood Mixed Delivery System

Brief 2: Follow-Up Social Network Analysis

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Background

In 2020, the Michigan Department of Education's (MDE's) Office of Great Start was awarded a Preschool Development Birth Through Five (PDG B-5) renewal grant. One goal of the grant is to strengthen partnerships in Michigan's birth-through-age-5 mixed delivery system. Across Michigan, a variety of agencies serve and support young children and their families, including MDE; the Michigan Department of Health and Human Services (MDHHS); the Department of Licensing and Regulatory Affairs (LARA); the Department of Technology, Management and Budget (DTMB); and community-based partners. This brief examines how these agencies and community-based partners work together to achieve the goal of making Michigan the best state to raise a baby. Exploring the level of collaboration within the early childhood care and education (ECCE) mixed delivery system can inform efforts to strengthen partnerships among child- and family-serving agencies and thus promote more integrated service provision.

MDE contracted with the American Institutes for Research® (AIR®) to conduct a collaborative study. In 2021, AIR launched a survey to examine how staff across government agencies in the mixed delivery system collaborate. AIR collected survey data from 2,528 agency staff and community partners (see Box 1). The survey documented attitudes and beliefs about collaboration and how people worked together. In an initial brief, [Let's Work Together: Documenting Collaboration in Michigan's Early Childhood Mixed Delivery System](#), we used social network analysis to document and describe these relationships, with a particular focus on cross-agency collaboration.

In this second brief, we report on follow-up social network analyses to provide a deeper understanding of collaborations in the early childhood mixed delivery system, using the following research questions as a starting point:

1. To what extent did the Great Start Collaboratives (GSCs) collaborate with community partners to serve children and families? What were the most common community partners?
2. To what extent did *Early On* staff collaborate across and within counties to serve children with early intervention needs?

SOCIAL NETWORK ANALYSIS

Social network analysis is a research method that focuses on measuring and mapping social relationships, analyzing the structure of groups, and assessing the influence of individuals within groups. In social network analysis, survey participants are asked to nominate people with whom they collaborate. All direct and indirect connections between people are then analyzed statistically to determine how they form a larger social network. Studying a social network can reveal how tasks are accomplished, how information is passed, and how the network can become more efficient.

BOX 1. THE STUDY INVITED 1,022 INDIVIDUALS IN THE MICHIGAN ECCE MIXED DELIVERY SYSTEM TO TAKE THE SURVEY.

Program directors at MDE, MDHHS, LARA, and DTMB identified staff who worked in the ECCE mixed delivery system to complete the collaboration survey. The study team sent 1,022 online survey invitations; 534 staff responded, yielding a 52% response rate. Some groups had higher response rates (GSC directors at 77%), whereas others had lower rates (DTMB at 38%). Most groups had response rates near 50%.

The survey asked staff to (a) share their thoughts about collaboration and (b) nominate individuals with whom they collaborated about ECCE topics in the past 3 months. Survey participants named an additional 1,507 individuals who worked in the ECCE mixed delivery system. Because these individuals were named as collaborators, they were included in the analyses to understand where and in what ways collaboration exists within the ECCE mixed delivery system, yielding a total sample size of 2,528 individuals.

The study team used the survey responses to map the ways in which staff collaborate, creating a social network map with bidirectional relationships. The social network analyses identified all connections across staff in four areas of collaboration: communication, information sharing, problem solving, and understanding each other's professional knowledge and skills. All analyses in this report share the overall connections, regardless of collaboration type.

3. To what extent did intermediate school districts (ISDs) collaborate with other parts of the early childhood mixed delivery system?
4. Were other groups working together, as detected by the social network analysis, which could shed light on how the mixed delivery system collaborates?
5. Did staff attitudes about collaboration, professional background, and demographic characteristics predict stronger collaborations in the early childhood mixed delivery system?

To answer the first three research questions, we examined collaboration in the three parts of the system in which intentional efforts were made to improve collaboration: GSCs, *Early On*, and ISDs. To answer research question 4, we conducted descriptive analyses of the “communities of collaboration” identified in the first brief to learn more about groups of staff who work together closely, regardless of top-down efforts to improve collaboration. For simplicity, we refer to the GSCs, *Early On*, and ISDs as **expected** collaboratives and the collaboratives identified by the social network analysis as **detected** collaboratives. To answer research question 5, we analyzed the extent to which staff's attitudes about collaboration, professional background, and demographics predicted how much they collaborated with other staff in the mixed delivery system. These analyses can help explain why staff may be more or less likely to work closely with colleagues and guide how to support collaboration at the staff level. We conclude the brief by synthesizing findings across the follow-up analyses and providing recommendations for improving collaboration in the mixed delivery system.

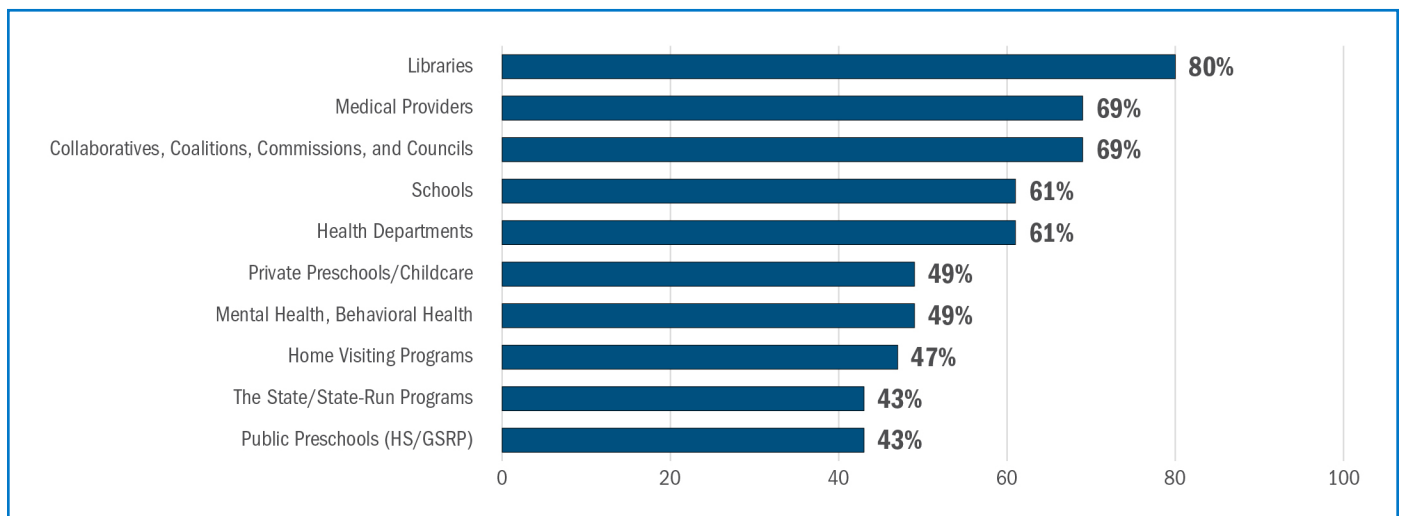
Collaboration is strong among the Great Start Collaboratives in Michigan.

The GSCs are the core part of the ECCE system in Michigan. The mission of these locally driven collaboratives is to facilitate partnerships across children and family services to effectively meet family needs. As described in the first brief, we found robust partnerships within the GSCs: GSC staff often collaborated with other GSC staff within their county and with GSC staff from nearby counties. This section of the brief answers research question 1, *To what extent do the GSCs collaborate with community partners to serve children and families? What are the most common community partners?*

GSCs partnered with a wide range of community organizations to serve families, most commonly libraries, medical providers, and schools.

GSCs partnered with more than 40 types of community organizations and agencies to meet family needs. The makeup of GSC partnerships in each county varied. On average, each GSC partnered with 13 types of organizations. Of the responding GSCs,¹ those with the most partnerships were Kent (31 types of partners), Delta-Schoolcraft (29 types of partners), and Traverse Bay Area (25 types of partners). As shown in Exhibit 1, the majority of the GSCs partnered with libraries (80%); medical providers (69%); other collaboratives, coalitions, commissions, and councils (e.g., breastfeeding coalitions, child abuse prevention councils, Great Start to Quality; 69%); schools (61%); and health departments (61%). Nearly half of the GSCs partnered with private preschools or childcare providers, and many GSCs partnered with publicly funded preschools, including Great Start Readiness Programs and Head Start programs (43%). This suggests that the GSCs have robust relationships with both public and private ECCE providers.

Exhibit 1. The Top 10 Types of Organizations With Which GSCs Partnered



Note. GSC = Great Start Collaborative; GSRP = Great Start Readiness Program; HS = Head Start. The top 10 types of partnering organizations are listed based on the percentage of GSCs that nominated an organization as a collaborator in each category. In the survey, respondents were asked to list the organizations with which they partner. Some respondents listed specific entities (e.g., Alcona Elementary School), whereas other nominations were more broad (e.g., local schools). Organizations were qualitatively coded into categories that represented the general type of organization listed.

Nearly half of the GSCs also partnered with mental health providers supporting families with young children. Other, less common community collaborations of interest included partnerships with child advocacy centers (nine GSCs) and partnerships with foster care or adoption-focused organizations (six GSCs).

Early On staff collaborate within their local communities to provide early intervention services to children and families.

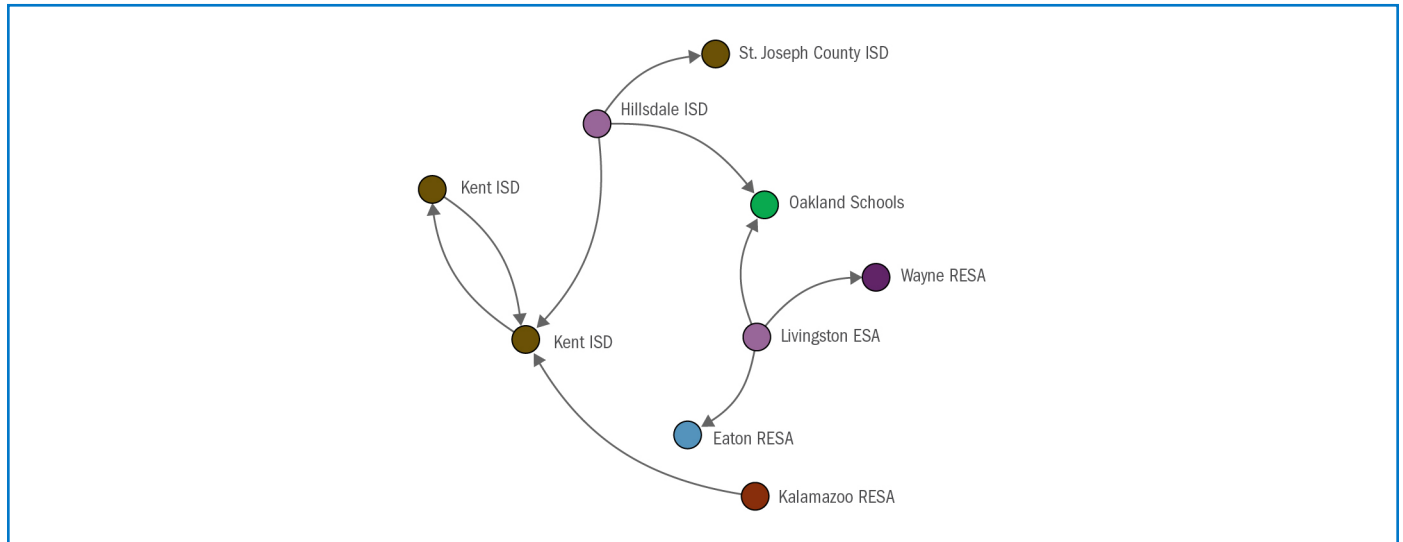
To answer research question 2 (*To what extent did Early On staff collaborate across and within counties to serve children with early intervention needs?*), we focused on the delivery of early intervention services to children and families. In Michigan, *Early On* provides supports through direct services—such as speech and language therapy, occupational therapy, and physical therapy—often offered in the family’s home or at ISD facilities (e.g., the local elementary school or the district office) and childcare centers if necessary. Many but not all *Early On* staff also are directly employed by their local ISD. To better understand how *Early On* services connect across government agencies and community partners, we analyzed collaborations both internally among *Early On* staff and externally with community organizations.

¹ One hundred fifteen GSC directors and parent liaisons responded to the survey, representing 52 of the 54 GSCs in Michigan.

There was very little cross-county collaboration in the *Early On* network.

We first explored collaboration among *Early On* staff across different counties. Exhibit 2 shows some within-county collaboration in Kent ISD and Hillsdale ISD. Livingston Educational Service Agency (ESA) and Kalamazoo Regional Educational Service Agency (RESA) nominated *Early On* staff in other counties as collaborators. However, 25 *Early On* survey respondents neither nominated nor were nominated by other *Early On* staff as collaborators.

Exhibit 2. Collaboration in the *Early On* Network

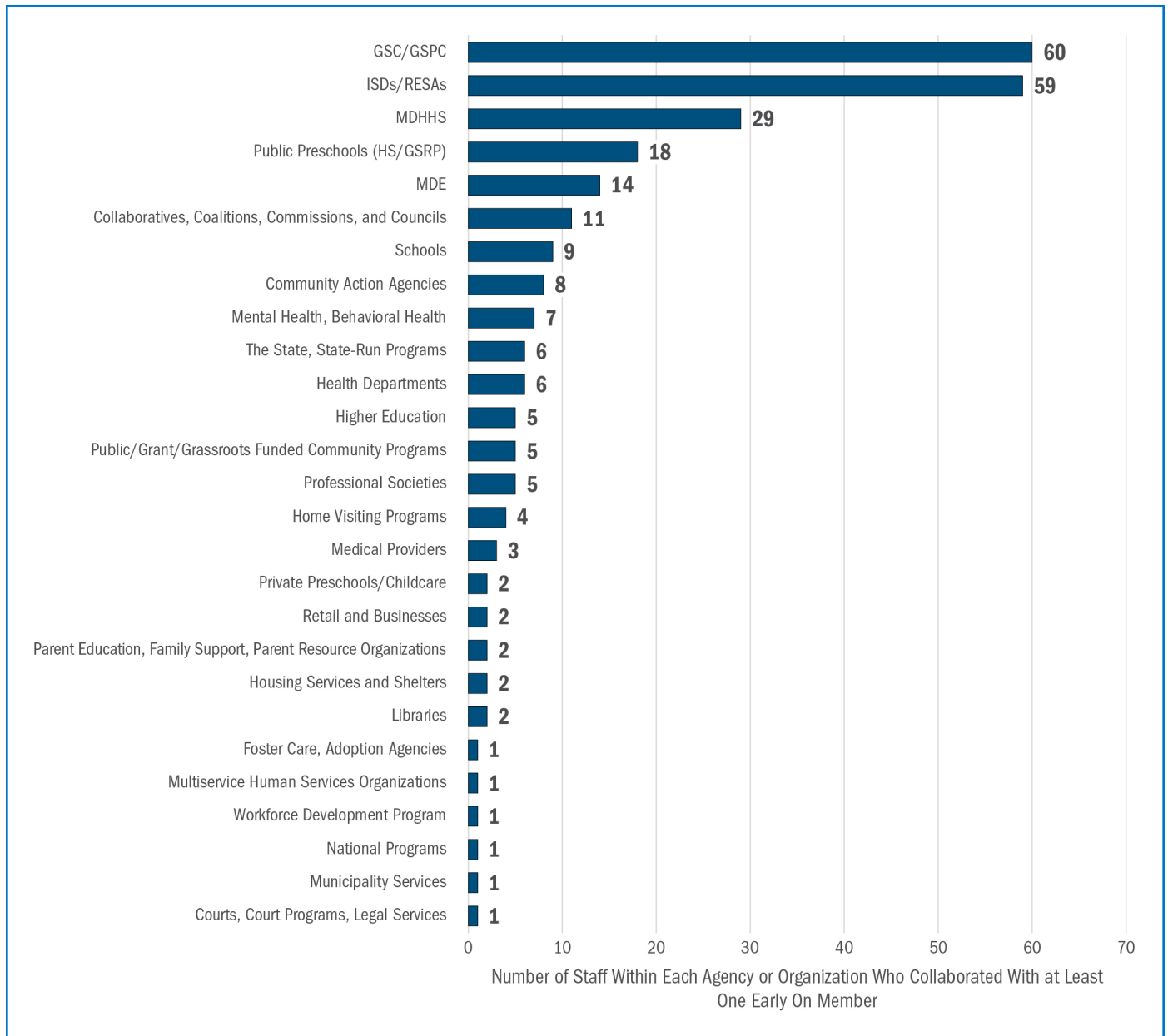


Note. Only six *Early On* staff in five counties were nominated by others as their collaborators. We did not find evidence of within- or cross-county collaboration among *Early On* staff in the other 25 counties. The 25 counties removed from the visualization include Alpena-Montmorency-Alcona Educational Service District (ESD), Barry Intermediate School District (ISD), Bay-Arenac ISD, C.O.O.R. (Crawford Oscoda Ogemaw Roscommon) ISD, Copper Country ISD, Delta-Schoolcraft ISD, Dickinson-Iron ISD, Gogebic-Ontonagon ISD, Gratiot-Isabella Regional ESD, Huron ISD, Iosco Regional Educational Service Agency (RESA), Lenawee ISD, Macomb ISD, Mecosta-Osceola ISD, Menominee ISD, Monroe ISD, Montcalm Area ISD, Muskegon Area ISD, Northwest Education Services, Ottawa Area ISD, Sanilac ISD, Shiawassee Regional ESD, Tuscola ISD, Van Buren ISD, and West Shore ESD.

Early On staff collaborated with individuals from various organizations in their local communities.

Next, we examined how *Early On* staff collaborated with community partners. *Early On* staff nominated 28 types of community organizations with which they collaborated in their own counties. The most common partners were GSCs, state agencies (MDE/MDHHS), K–12 education agencies (ISDs/RESAs), and public preschools (Exhibit 3). Other, less frequently nominated partners included health departments, medical providers, mental and behavioral health programs, home visiting programs, libraries, various service organizations, and legal programs and services.

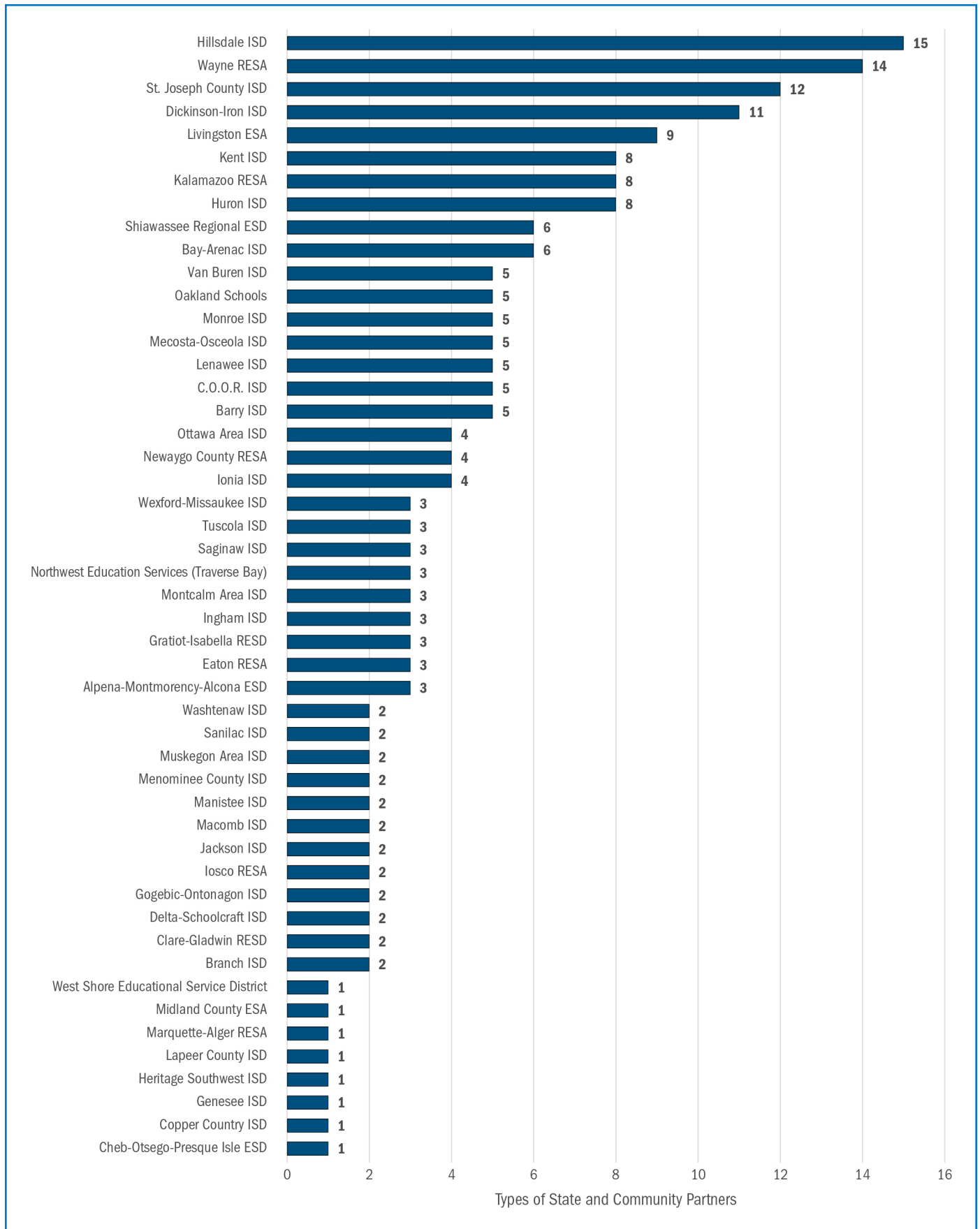
Exhibit 3. The Most Common Partners for *Early On* Staff



Note. GSC = Great Start Collaborative; GSPC = Great Start Parent Coalition; GSRP = Great Start Readiness Program; HS = Head Start; ISD = intermediate school district; MDE = Michigan Department of Education; MDHHS = Michigan Department of Health and Human Services; RESA = Regional Educational Service Agency.

The number of partners also varied by district. Most *Early On* staff reported five or fewer community partners, which varied by district size and urbanicity (Exhibit 4). For example, *Early On* staff who work in some larger ISDs or regional school districts, such as Wayne RESA and Hillsdale ISD, reported up to 15 types of community partners. However, some large urban counties, such as Saginaw ISD and Jackson ISD, reported collaborating with fewer than five state and community partners. Smaller or more rural districts, such as Cheb-Otsego-Presque Isle ESD, Heritage Southwest ISD, and Copper Country ISD, reported collaborating with only MDE or one other agency/organization.

Exhibit 4. Most ISD-Based *Early On* Programs Had Five or Fewer State and Community Partners

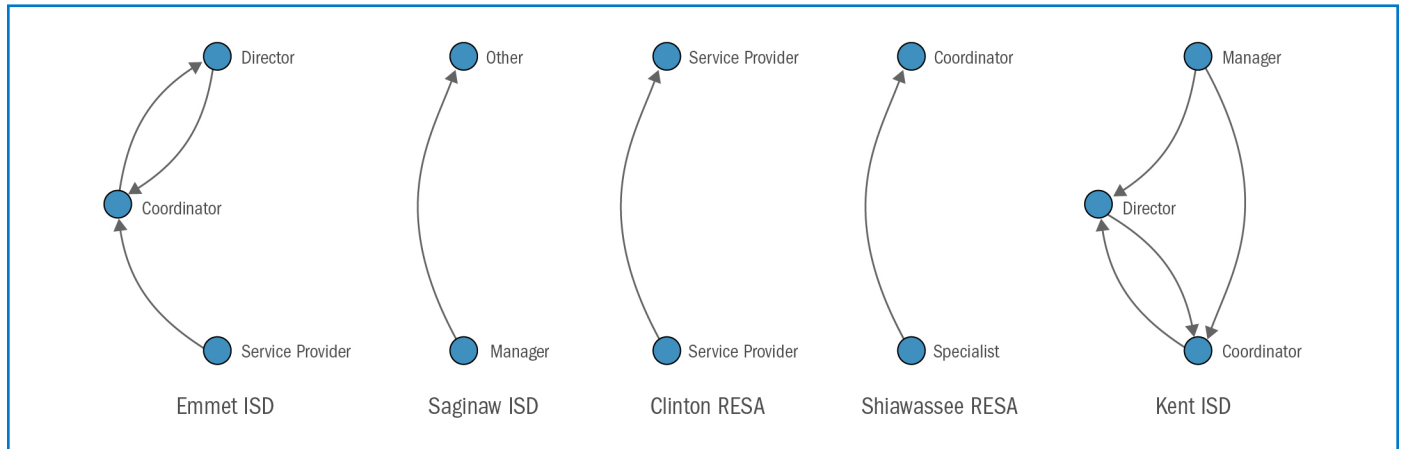


Note. ESD = Educational Service District; ISD = intermediate school district; RESA = Regional Educational Service Agency. At least one *Early On* staff from 49 ISDs responded to the survey.

Intermediate school districts partnered locally within their own counties or regions.

To answer research question 3 (*To what extent did ISDs collaborate with other parts of the early childhood mixed delivery system?*), we explored collaboration within and across ISDs. ISD staff who took the survey included early childhood directors and supervisors of early childhood programs, superintendents, specialists, and other administrative and supporting staff. First, we examined how ISD staff work together and found no cross-ISD collaboration: among the 26 ISD staff who responded to the survey (65 invited, 40% response rate), no staff nominated collaborators from ISDs in other counties. In a few counties (Emmet, Saginaw, Clinton, Shiawassee, and Kent), staff within the ISD worked together, but this was rare (Exhibit 5).

Exhibit 5. No Cross-County ISD Collaborations Were Found in the Data



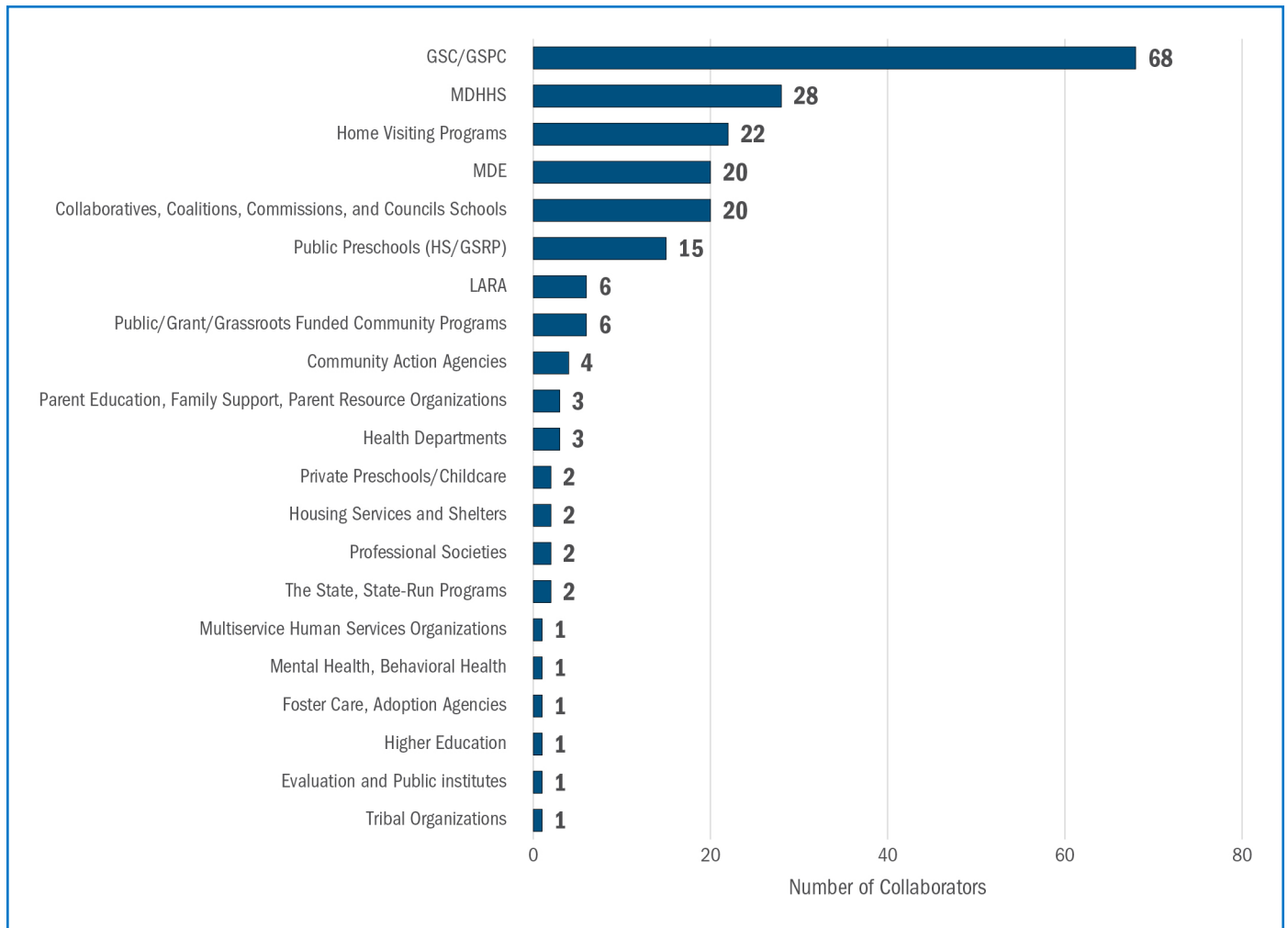
Note. ISD = intermediate school district; RESA = Regional Educational Service Agency. The staff collaborating within ISDs were program service providers (three staff), coordinators (three staff), directors (two staff), program managers (two staff), and specialists (two staff). The remaining respondents were isolated and had zero connections.

In addition to looking at the social networks of the 26 ISD staff who responded to the survey, we looked at the full data and examined how many more ISD staff were nominated by other community partners throughout the ECCE mixed delivery system. We identified an additional 306 staff based in an ISD.² Although many more ISD staff were identified in the data, community partnerships tended to be on a small scale, with each ISD staff member collaborating with two to three other people; most ISD staff had only one connection (70%). Only a small number of ISD staff (5%) had 10 or more connections.

In those ISDs in which there was collaboration, ISD staff most often collaborated with state staff from GSCs and MDHHS (Exhibit 6). Other common community partners included home visiting programs; MDE; collaboratives, coalitions, commissions, and councils; ISDs also collaborated with preschools (public and private).

² The majority of these identified ISD staff were exclusive of *Early On* or GSC staff. Among these 332 ISD staff, only four also were affiliated with *Early On*, and six were affiliated with a GSC.

Exhibit 6. Most ISD Collaborations Were With GSCs, MDHHS, Home Visiting Programs, MDE, Community Programs, and Public Preschools



Note. GSC = Great Start Collaborative; GSPC = Great Start Parent Coalition; GSRP = Great Start Readiness Program; HS = Head Start; LARA = Department of Licensing and Regulatory Affairs; MDE = Michigan Department of Education; MDHHS = Michigan Department of Health and Human Services. Other categories not presented in the data include business service centers; chambers of commerce; charities; child advocacy centers; community centers; courts; court programs; legal services; the Department of Technology, Management and Budget; faith-based organizations; libraries; literacy programs; media; medical providers; municipality services; national programs; parks; recreation; museums; arts; private foundations; retail and businesses; substance abuse programs; workforce development programs; and youth programs.

Other, less common partnerships worth noting included collaborations with MDHHS staff from Behavioral Health and the Population Health Integrated Service Area (eight staff), Child Welfare (seven staff), the Children’s Special Health Care Services Division (two staff), the Medicaid integrated service area (two staff), and county offices of health (two staff).

The collaborative networks detected by the social network analysis provide examples for innovative cross-state partnerships.

In AIR’s initial social network analyses, we used a statistical algorithm to identify staff throughout the ECCE mixed delivery system who collaborate most closely with one another (see Box 2 about the method). The algorithm identified 14 collaborative groups of staff. Five of the identified communities reflected various GSCs, three had too few members to interpret, and six reflected detected collaborative groups (Collaborative 2 through 7 as listed in the initial brief). In this section, we describe the “detected collaboratives” to further analyze how collaboration occurs within the ECCE mixed delivery system beyond the intentional, top-down efforts to improve collaboration (i.e., GSCs, *Early On*, and ISDs). Exhibit 7 presents a detailed description of staff within these communities, including service areas, roles, average years of experience, and network characteristics.

BOX 2. GROUPING INDIVIDUALS BY COLLABORATION

The analysis used the Louvain method for community detection to extract communities from large networks. The algorithm was set to randomly group individuals within a network and iteratively optimize the grouping solutions by maximizing the density within a group. At the same time, it would minimize connections between groups until the model reached the best possible grouping for the network. For this analysis, we excluded the 190 individuals not named by any survey participants.

The two largest detected collaboratives reflected MDE and MDHHS cross-division collaborations in maternal and infant health and early childcare and education.

The largest informal collaborative (Collaborative 2) primarily comprised staff from the Division of Maternal and Infant Health, as well as several other MDHHS divisions. The collaborative included representatives of home visiting (15 staff), health and nutrition (seven staff), and a large group working in other service areas not listed (25 staff). The most common roles were consultants, coordinators, and managers. On average, staff in the collaborative nominated or were nominated by 8.2 other staff in the network, the highest average among the detected collaboratives. Central actors (those nominated the most as collaborators) included managers, directors, and a consultant from the Divisions of Maternal and Infant Health and Child and Adolescent Health.

The second largest detected collaborative (Collaborative 3) included staff from several MDE and MDHHS divisions, with the largest numbers from the Preschool and Out-of-School Time Learning and Early Childhood Development and Family Education divisions. The largest groups of staff reported working in early intervention or special education (10 staff) and family and parenting supports (10 staff). The most common staff roles were consultants, directors, and managers. On average, staff in the collaborative nominated or were nominated by 7.8 other staff in the network. Central actors included directors, managers, and a specialist from the Early Childhood Development and Family Education, Preschool and Out-of-School Time Learning, and Child Development and Care divisions.

Smaller detected collaboratives focused on childcare licensing in LARA, WIC in MDHHS, child development and care in MDE, and newborn screening in MDHHS.

The third largest detected collaborative (Collaborative 4) represented the Childcare Licensing Bureau in LARA, with some MDE and MDHHS staff as additional collaborators. As expected, most staff reported working in the ECCE service area (17 staff). The most common staff role was consultant, followed by manager. On average, staff nominated or were nominated by 3.3 collaborators, the second lowest among the detected collaboratives. Although most staff were consultants; the central actors were two managers and one director from the Childcare Licensing Bureau.

The fourth largest detected collaborative (Collaborative 5) comprised almost entirely MDHHS staff in the Women, Infants, and Children (WIC) program, and almost all staff reported working in the health and nutrition service area (27 staff). The most common staff roles were consultant, analyst, and manager. Staff averaged 7.2 collaborations, and central actors included two managers, one director, and one coordinator from the WIC program.

The fifth largest detected collaborative (Collaborative 6) almost entirely comprised MDE staff in the office of Child Development and Care, and most staff reported working in ECCE (nine staff). Manager and analyst were the most common staff roles reported. Staff averaged 2.9 collaborations, the fewest among the detected collaboratives. The central actors were three managers from the Office of Child Development and Care.

Exhibit 7. Characteristics of the Detected Collaboratives

Collaborative	Service Areas	Roles	Experience	Network Characteristics
Collaborative 2: MDHHS cross-division collaborations (119 staff)	Home visiting (15) Health and nutrition (7) Family and parenting supports (5) Mental health service (2) Child welfare (1) Early intervention or special education (1) Housing (1) Other (25) Unknown (62)	Consultant (17) Coordinator (12) Manager (9) Director (6) Specialist (4) Analyst (2) Assistant (2) Administrator (1) Service provider (1) Other (4) Unknown (61)	Years in the field <i>M</i> = 17.9, <i>SD</i> = 9.4 Years in position <i>M</i> = 5.4, <i>SD</i> = 4.7	Collaborations 487 total, <i>M</i> = 8.2 Number of nominators <i>M</i> = 4.1, range = 1-19 Network density 3.5%
Collaborative 3: MDE cross-division collaborations (94 staff)	Early intervention or special education (10) Family and parenting supports (10) Early childhood care and education (7) Kindergarten transition supports (4) Mental health service (3) Child welfare (1) Early childhood data systems (1) Other (13) Unknown (43)	Consultant (16) Director (13) Manager (11) Specialist (5) Analyst (2) Coordinator (2) Parent liaison (2) Unknown (43)	Years in the field <i>M</i> = 21.4, <i>SD</i> = 8.1 Years in position <i>M</i> = 6.7, <i>SD</i> = 5.2	Collaborations 366 total, <i>M</i> = 7.8 Number of nominators <i>M</i> = 3.9, range = 0-21 Network density 4.2%
Collaborative 4: Childcare Licensing Bureau (79 staff)	Early childhood care and education (17) Child welfare (4) Cash assistance (1) Early childhood data systems (1) Family and parenting supports (1) Other (9) Unknown (46)	Consultant (19) Manager (7) Director (3) Specialist (3) Technician (1) Coordinator (1) Unknown (45)	Years in the field <i>M</i> = 18.7, <i>SD</i> = 8.4 Years in position <i>M</i> = 5.6, <i>SD</i> = 4.2	Collaborations 130 total, <i>M</i> = 3.3 Number of nominators <i>M</i> = 1.7, range = 0-8 Network density 2.1%

Collaborative	Service Areas	Roles	Experience	Network Characteristics
Collaborative 5: WIC (59 staff)	Health and nutrition (27) Cash assistance (1) Home visiting (1) Mental health service (1) Other (4) Unknown (25)	Consultant (10) Analyst (10) Manager (8) Director (2) Administrator (1) Service Provider (1) Other (2) Unknown (25)	Years in the field <i>M</i> = 16.8, <i>SD</i> = 10.6 Years in position <i>M</i> = 5.7, <i>SD</i> = 5.9	Collaborations 213 total, <i>M</i> = 7.2 Number of nominators <i>M</i> = 3.6, range = 0–10 Network density 6.22%
Collaborative 6: MDE Child Development and Care (32 staff)	Early childhood care and education (9) Early childhood data systems (2) Cash assistance (1) Other (1) Unknown (19)	Manager (5) Analyst (5) Specialist (2) Technician (1) Unknown (19)	Years in the field <i>M</i> = 10.2, <i>SD</i> = 9.2 Years in position <i>M</i> = 4.5, <i>SD</i> = 4.4	Collaborations 46 total, <i>M</i> = 2.9 Number of nominators <i>M</i> = 1.4, range = 0–4 Network density 1.4%
Collaborative 7: MDHHS Newborn Screening (28 staff)	Health and nutrition (5) Child welfare (4) Mental health service (1) Other (5) Unknown (13)	Consultant (3) Analyst (3) Manager (2) Coordinator (2) Specialist (2) Director (1) Administrator (1) Technician (1) Unknown (13)	Years in the field <i>M</i> = 19.7, <i>SD</i> = 11.7 Years in position <i>M</i> = 5.0, <i>SD</i> = 7.9	Collaborations 48 total, <i>M</i> = 3.4 Number of nominators <i>M</i> = 1.7, range = 0–5 Network density 6.4%

Note. MDE = Michigan Department of Education; MDHHS = Michigan Department of Health and Human Services; WIC = Women, Infants, and Children. Values in parentheses in the service areas and roles columns represent the number of staff.

The final and smallest detected collaborative (Collaborative 7) represented MDHHS staff from the Newborn Screening Section with no staff from other agencies. Most staff reported working in health and nutrition (five staff) or child welfare (four staff), but several reported working in other service areas not listed (five staff). Staff roles included similar numbers of consultants, analysts, managers, coordinators, and specialists (two or three staff each). Staff averaged 3.4 collaborations, and central actors included one manager and one coordinator from the Newborn Screening Section and one manager from the Department of Community Health.

Staff attitudes, professional background, and demographics do not appear to predict stronger collaboration within Michigan’s mixed delivery system.

To better understand why staff in the ECCE mixed delivery system do or do not collaborate, we examined whether staff members’ characteristics predicted their collaboration with other staff.³ The staff characteristics we tested included the following:



- Agency
- Service area
- Role or job title
- Years in the field
- Years in their position
- Gender
- Race/ethnicity
- Attitudes about collaboration (beliefs about the benefits of collaboration, resources to support collaboration, barriers that hinder collaboration, shared goals for collaboration, communication, and trust)

We found no significant predictors of collaboration. That is, none of the staff characteristics or attitudes related to their likelihood of collaborating. However, these nonsignificant findings could be the result of almost 80% of the network members (survey nonrespondents) not being able to nominate their collaborators.

As a follow-up analysis, we examined predictors of collaboration only among the 534 survey respondents from the network. In this respondent-only network, staff members who have spent more years in their position were marginally more likely to collaborate with others. For every 3-year increase in tenure ($M = 6.0$ years, $SD = 4.6$ years), staff had a 9% increased likelihood of collaboration.⁴ Staff with more experience in their positions seem to have more time to build collaborative relationships with other staff in the ECCE mixed delivery system.

We also found that staff who perceived more barriers to collaboration in their position were marginally less likely to collaborate than others.⁵ A one standard deviation increase in a staff member’s perceived barriers ($M = 2.08$, $SD = .59$) to collaboration was associated with a 21.7% decreased likelihood of collaboration, suggesting that staff who perceived collaboration as more difficult in their position may be less likely to nominate or be nominated as collaborators in the network. However, these findings should be interpreted with caution because they come from survey respondents only and were only marginally significant.



³ To better understand why staff in the ECCE mixed delivery system do or do not collaborate, we conducted a quadratic assignment procedure regression analysis. Similar to a traditional regression analysis, a quadratic assignment procedure is a statistical approach that allows us to predict the likelihood of collaboration with characteristics in the social network data.

⁴ $b = .03$, $SE = .005$, $p = .072$, OR (odds ratio) = 1.03, CI (confidence interval) = 1.02-1.04.

⁵ $b = -0.31$, $SE = .060$, $p = .090$, $OR = 0.73$, $CI = 0.65-0.82$.

Conclusion

Key Takeaways

- GSCs worked with a wide range of community organizations, most commonly libraries, medical providers, schools, and preschools/childcare providers.
- *Early On* staff often collaborated with ISDs and community partners within their counties but rarely collaborated across counties.
- ISD staff most frequently formed local partnerships with fellow ISD staff and community partners within their own counties.
- Collaboratives detected by the social network analysis reflect groups that deliver a common service across counties or across the state.
- Staff attitudes about collaboration, profession background, and demographics did not predict how much they collaborate with others.



The aim of Michigan’s ECCE mixed delivery system is to support all families with children ages 0–5 using a “no wrong door” approach. To improve service delivery, MDE has made deliberate efforts to improve collaboration in GSCs, *Early On*, and ISDs. To evaluate these efforts, AIR surveyed staff working throughout the mixed delivery system and used social network analysis to examine how these expected collaboratives work with other staff and community partners, observe which staff work together in detected collaboratives identified statistically, and explore what staff characteristics and attitudes may predict how much they collaborate.

Our analyses found wide variation in how the GSC, *Early On*, and ISD networks collaborate. GSCs worked with a wide range of community organizations, and most partnered with more than 10 community organizations. Further, most GSCs collaborated with libraries, medical providers, schools, and preschools/childcare providers. This signals the important function that community partnerships may play in GSCs and suggests that GSCs are working through multiple avenues to reach the families they serve where they are, a finding consistent with those from our prior work on Michigan PDG (see prior briefs [online](#)).



Early On staff often collaborated with ISDs and community partners within their county and less frequently formed cross-county collaborations. First, the lack of cross-county collaboration was surprising, given that MDE and Clinton County Regional Education Service Agency (CCRESA) hold frequent collaborative calls with *Early On* coordinators. Additionally, the state hosts the biennial *Early On* conference. While these state-level structures are in place to support cross-county collaboration in early intervention, *Early On* staff still reported limited direct coordination with other counties.

Second, the findings of the social network analyses were consistent with qualitative data collected for a forthcoming study of *Early On* costs. In that project, AIR uncovered that *Early On* may lack consistency across the state—such as materials and tools used for individualized family service plans, assessments, goal planning, and data tracking. Training for *Early On* coordinators and service providers also differ widely. Supporting *Early On* staff in forming more cross-county

partnerships might benefit the system by providing more cohesion across counties and opportunities for staff to share best practices and resources. One potential avenue for bolstering these cross-county connections could be forming an *Early On* community of practice at the state level to share tips and tricks in early intervention.



As with *Early On* staff, ISD staff most frequently formed local partnerships with fellow ISD staff and community partners within their own counties. However, ISDs had fewer collaborative partners than the GSCs did. Although our data did not examine whether more collaboration would help ISDs better serve families, building cross-county communities of practice could provide an opportunity for ISD staff to benefit from sharing knowledge, resources, and best practices. In addition, strengthening the partnerships between ISDs and local service providers (e.g., mental and behavioral health providers, health services) could help smooth the referral process, which can be an obstacle for many parents and children in need.⁶ ISD staff frequently collaborated with GSCs, and those connections could be leveraged to connect across counties and connect with an even broader array of community partners.

Although GSC, *Early On*, and ISD staff reported collaborating with various organizations, these data do not speak to the strength or function of these partnerships. For example, GSCs provide a wide range of services, from light-touch activities (e.g., distributing tote bags) to targeted engagement strategies that require deeply integrated and close relationships, shared funding, and strategic cooperation (e.g., multisession trainings). More work is necessary to unpack the depth and function of these partnerships, as well as their efficacy in helping staff serve families.

Our examination of the detected collaboratives identified by the social network algorithm also suggests that key groups working together either (a) deliver a common service across counties or across the state or (b) come together within a local community to work together to serve children and families in their counties. Most collaborations took place within the same agency and across divisions, which may suggest that cross-agency collaborations were less frequent than within-agency collaboration. In future research, these groups could be interviewed to understand why they show such high levels of collaboration and to learn from areas of success within Michigan's early childhood mixed delivery system.

Finally, we found that staff attitudes about collaboration, professional background, and demographics measured on the survey do not necessarily predict stronger collaboration. Two trends might be worth further exploration: staff with more experience and fewer perceived barriers to collaboration may be more likely to collaborate. Previous studies of collaboration across government agencies have suggested that cross-agency collaboration is subject to a multilayered context of political, legal, socioeconomic, environmental, and other influences and less about the individual's intention to collaborate. For example, the author of an earlier article⁷ investigated collaborations among Wisconsin's Department of Natural Resources, the Division of Public Health, and local public health departments throughout the state. Among many nonsignificant predictors of collaboration (including problem agreement, trust, top leadership, and the number of years in the field/position), the author found only two indicators as strong predictors of collaboration: previous collaborative experience and structural incentives to collaborate. These align with the trends we saw in our data (experience and fewer perceived barriers). These predictors of collaboration should, however, be considered preliminary and interpreted with caution.

This brief highlighted those areas where collaboration is strong in Michigan's mixed delivery system (e.g., the GSCs) and identified a few areas for growth across the state as Michigan strives to achieve its goal to serve all families with young children in the state.

⁶ Reardon, T., Harvey, K., Baranowska, M., O'Brien, D., Smith, L., & Creswell, C. (2017). What do parents perceive are the barriers and facilitators to accessing psychological treatment for mental health problems in children and adolescents? A systematic review of qualitative and quantitative studies. *European Child & Adolescent Psychiatry*, 26, 623–647. <https://doi.org/10.1007/s00787-016-0930-6>

⁷ Daley, C. (2009). Exploring community connections: Community cohesion and refugee integration at a local level. *Community Development Journal*, 44(2), 158–171. <https://doi.org/10.1093/cdj/bsm026>

Appendix. Highlighted Partnerships

Exhibit A1. Great Start Collaboratives (GSCs) Worked With Many Types of Community Partners, and the Number and Type of Community Partners Varied for Each Collaborative

GSC	Schools	ISDs/RESAs	Private preschools/ childcare providers	Public preschools (HS/GSRP)	National programs	MSU Extension	Child advocacy centers	Foster care, adoption agencies	Tribal organizations	Media
Allegan	✓	✓	✓	✓	✓		✓			
Alpena-Montmorency-Alcona	✓			✓	✓					
Barry	✓	✓	✓	✓	✓	✓				
Berrien		✓		✓	✓					
Branch	✓			✓	✓					
C.O.O.R./Iosco	✓									
Calhoun	✓			✓	✓					
Cass	✓	✓	✓	✓	✓			✓		
Charlevoix-Emmet	✓	✓	✓	✓	✓			✓	✓	
Cheboygan-Otsego-Presque Isle				✓		✓	✓			
Clare-Gladwin	✓									
Clinton	✓			✓		✓				
Copper Country	✓	✓	✓	✓				✓		
Delta-Schoolcraft	✓	✓	✓	✓	✓	✓		✓	✓	✓
Dickinson-Iron	✓									
Eastern Upper Peninsula					✓				✓	
Eaton				✓						
Genesee			✓							
Gogebic-Ontonagon	✓				✓					
Gratiot-Isabella			✓				✓			
Huron			✓							
Ingham	✓	✓		✓				✓		✓
Jackson	✓	✓	✓		✓					
Kalamazoo	✓		✓							
Kent	✓	✓	✓	✓	✓		✓	✓	✓	✓
Lapeer	✓			✓			✓			
Lenawee	✓	✓	✓	✓						
Livingston			✓			✓				
Macomb	✓		✓							
Marquette-Alger	✓					✓				
Menominee		✓			✓				✓	
Midland			✓							
Monroe		✓	✓		✓		✓			

GSC	Schools	ISDs/RESAs	Private preschools/ childcare providers	Public preschools (HS/GSRP)	National programs	MSU Extension	Child advocacy centers	Foster care, adoption agencies	Tribal organizations	Media
Montcalm	✓	✓		✓	✓	✓	✓			
Muskegon	✓			✓	✓					
Newaygo		✓	✓			✓				
Oakland	✓		✓							✓
Saginaw		✓	✓							
Sanilac			✓	✓		✓	✓			
St. Clair	✓									
St. Joseph			✓							
Traverse Bay Area	✓		✓		✓		✓		✓	
Van Buren		✓				✓				
Washtenaw	✓	✓	✓		✓	✓				
Wayne	✓	✓				✓				✓
Wexford-Missaukee-Manistee	✓			✓	✓					
Total	30	19	24	21	20	12	9	6	6	5

Note. C.O.O.R. = Crawford Oscoda Ogemaw Roscommon; GSRP = Great Start Readiness Program; HS = Head Start; ISD = intermediate school district; MSU = Michigan State University; RESA = Regional Educational Service Agency. Individuals from 49 GSCs responded to this item in the survey. Hillsdale, Mason-Lake-Oceana, Mecosta-Osceola, Ottawa, and Shiawassee GSCs did not respond to this question or did not respond to the survey. Bay-Arenac, Ionia, and Tuscola GSCs responded to this item but did not nominate any organizations in these categories.

Exhibit A2. Early On Most Frequently Collaborated With Great Start Collaboratives and State and Local Education Agencies

Early On	MDE	GSC/GSPC	ISDs/RESAs	MDHHS	Collaboratives, coalitions, commissions, and councils	Home visiting programs	Public preschools (HS/GSRP)
Alpena-Montmorency-Alcona ESD	✓	✓					
Barry ISD	✓	✓	✓				✓
Bay-Arenac ISD	✓	✓					✓
Branch ISD	✓	✓					
C.O.O.R. ISD	✓	✓				✓	✓
Cheb-Otsego-Presque Isle ESD	✓						
Clare-Gladwin RESD	✓	✓					
Copper Country ISD	✓						
Delta-Schoolcraft ISD	✓	✓					
Dickinson-Iron ISD	✓	✓	✓	✓			✓
Eaton RESA	✓				✓	✓	
Genesee ISD	✓						
Gogebic-Ontonagon ISD	✓				✓		

<i>Early On</i>	MDE	GSC/GSPC	ISDs/RESAs	MDHHS	Collaboratives, coalitions, commissions, and councils	Home visiting programs	Public preschools (HS/GSRP)
Gratiot-Isabella RESD	✓	✓		✓			
Heritage Southwest ISD	✓						
Hillsdale ISD	✓	✓	✓	✓	✓		✓
Huron ISD	✓		✓	✓		✓	
Ingham ISD	✓	✓				✓	
Ionia ISD	✓	✓		✓		✓	
Iosco RESA	✓	✓					
Jackson ISD	✓	✓					
Kalamazoo RESA	✓	✓	✓		✓		
Kent ISD	✓	✓	✓	✓	✓	✓	
Lapeer County ISD	✓	✓					
Lenawee ISD	✓	✓		✓			
Livingston ESA	✓	✓	✓	✓	✓		✓
Macomb ISD	✓	✓					
Manistee ISD	✓		✓				
Marquette-Alger RESA	✓						
Mecosta-Osceola ISD	✓	✓		✓			✓
Menominee County ISD	✓	✓					
Midland County ESA	✓						
Monroe ISD	✓	✓	✓		✓		✓
Montcalm Area ISD	✓	✓	✓				
Muskegon Area ISD	✓	✓					
Newaygo County RESA	✓	✓			✓	✓	
Northwest Education Services (formerly known as Traverse Bay)	✓	✓	✓				
Oakland Schools	✓	✓	✓	✓		✓	
Ottawa Area ISD	✓		✓	✓	✓		
Saginaw ISD	✓	✓			✓		
Sanilac ISD	✓	✓					
Shiawassee RESD	✓	✓	✓	✓			✓
St. Joseph County ISD	✓	✓	✓		✓	✓	
Tuscola ISD	✓	✓		✓			
Van Buren ISD	✓	✓		✓			
Washtenaw ISD	✓	✓					
Wayne RESA	✓	✓	✓	✓		✓	✓
West Shore ESD	✓						
Wexford-Missaukee ISD	✓	✓	✓				
Total	49	37	17	15	11	10	10

<i>Early On</i>	Schools	Public/grant/ grassroots funded community programs	Mental health, behavioral health	The state, state-run programs	Community action agencies	Health departments	Medical providers
Alpena-Montmorency-Alcona ESD	✓						
Barry ISD							✓
Bay-Arenac ISD							✓
C.O.O.R. ISD						✓	
Dickinson-Iron ISD	✓		✓			✓	
Hillsdale ISD	✓	✓	✓		✓		
Huron ISD	✓	✓		✓			
Kalamazoo RESA	✓			✓			
Kent ISD		✓		✓			
Lenawee ISD		✓		✓			
Livingston ESA	✓	✓					
Mecosta-Osceola ISD			✓				
Shiawassee Regional ESD			✓				
St. Joseph County ISD			✓		✓	✓	✓
Wayne RESA		✓		✓	✓		
Total	6	6	5	5	3	3	3

<i>Early On</i>	Multiple agencies/ organizations	Professional societies	Retail and businesses	Higher education	Libraries	Parent education, family support, parent resource organizations	Private childcare/ preschools
Bay-Arenac ISD						✓	
Dickinson-Iron ISD	✓				✓		
Hillsdale ISD	✓	✓	✓	✓			✓
Huron ISD					✓		
Kalamazoo RESA		✓					
St. Joseph County ISD	✓		✓				✓
Van Buren ISD						✓	
Wayne RESA		✓	✓	✓			
Total	3	3	3	2	2	2	2

Early On	Courts, court programs, legal services	Foster care, adoption agencies	Housing services and shelters	Multiservice human services organizations	Municipality services	National programs	Workforce development programs
Bay-Arenac ISD		✓					
Dickinson-Iron ISD			✓				
Kalamazoo RESA					✓		
Livingston ESA	✓						
Van Buren ISD						✓	
Wayne RESA				✓			✓
Total	1	1	1	1	1	1	1

Note. C.O.O.R. = Crawford Oscoda Ogemaw Roscommon; ESA = Educational Service Agency; ESD = Educational Service District; GSC = Great Start Collaborative; GSRP = Great Start Readiness Program; ISD = intermediate school district; MDE = Michigan Department of Education; RESA = Regional Educational Service Agency; RESD = Regional Educational Service District.



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