The WERA Educational Journal

CONTENTS

Featured Articles

Commentary

Notes from the Editor

This edition of the WERA Educational Journal (WEJ) features four articles with original research, two articles related to early childhood education, and a commentary on the state's new accountability system.

- Dan Goldhaber, Roddy Theobald, and Chris Tien analyze how the racial/ethnic composition of Washington's educators and students has changed over the past three decades.

- Sean Agriss, Paula Gunther, Dutch Henry, and Andrea Reid summarize their collaborative work to create a Bridge to College English program to prepare lower-performing high school students to take college-level English classes.

- Shelby Cooley quantifies the educational experiences and perceptions of Black students in south King County.

- Becky Ballbach and Catherine Matthews provide a case study of their work in the Everett School District that led to a greater attention to social-emotional aspects of their students.

- Two articles deal with early childhood issues. A Department of Early Learning report on ECEAP Outcomes in 2016-17 is summarized, and an article originally published by Grover "Russ" Whitehurst at the Brookings Institution looks at how daycare and preschool costs vary around the nation.

- Fengyi Hung provides her perspective on the improvements made to the federal accountability system (ESSA) and two shortcomings in the current system being used in the state that need to be addressed.

We are now seeking papers and other submissions for the November 2018 issue of the *WERA Educational Journal*. The WEJ is a collection of academic papers, professional reports, book reviews, and other articles of general significance and interest to the Northwest education research and practitioner community. Topics in the WEJ cover a wide range of areas of educational research and related disciplines. These include but are not limited to issues related to the topics listed below.

- Early childhood education
- Curriculum and instruction
- State and national standards
- Professional development
- Special populations (e.g., gifted, ELLs, students with disabilities)
- Assessments and their relationship with other variables

- Early warning indicators
- Social and emotional issues
- School and district effectiveness
- Teacher and principal evaluation
- Education finance and policy
- Educational technology
- Educational leadership

We encourage the submission of condensed versions of dissertations and theses that are reader-friendly. Papers for the November 2018 issue are due July 15, 2018. For information about the WEJ and its submissions, see the Submission Guidelines posted on the WERA website. If you have questions about the process or about possible submissions, email me at WEJeditor@gmail.com or at my work at bylsmapj@mukilteo.wednet.edu.

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Educator and Student Diversity in Washington State: Gaps and Historical Trends

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Roddy Theobald, American Institutes for Research
Chris Tien, University of Washington

We use longitudinal data on teachers and schools to document trends in the diversity of the student body and teaching workforce in Washington public schools over the past 30 years. While the percent of teachers of color in Washington public schools has increased steadily over this time period, the percent of students of color in the state has increased at a far more rapid rate, meaning that the gap between the diversity of the student body and the diversity of the public teaching workforce in Washington has grown substantially over time. We then supplement this analysis with more recent data on teacher candidates provided by 14 teacher education programs in Washington and show that the percent of candidates of color in these programs increased by about 50% from 2010 to 2015, which illustrates the potential to increase the diversity of the teacher candidate pool in the state.

Introduction and National Context

It has been well documented—including in recent reports from Washington State (Professional Educator Standards Board, 2014) and several large districts across the country (Albert Shanker Institute, 2015)—that the public teaching workforce is far less racially and ethnically diverse than the student body in U.S. public schools. As one example, Figure 1 shows a scatterplot of the percent of students of color (on the x-axis) and the corresponding percent of teachers of color (on the y-axis) in each state represented in the 2011–12 Schools and Staffing Survey.[1] The dashed line represents the points where these percentages are equal and illustrates that every state in the country has a lower (and, in most cases, dramatically lower) percentage of teachers of color than percentage of students of color.

Figure 1: State-Level Percentages of Students of Color and Teachers of Color, 2011–12 School Year

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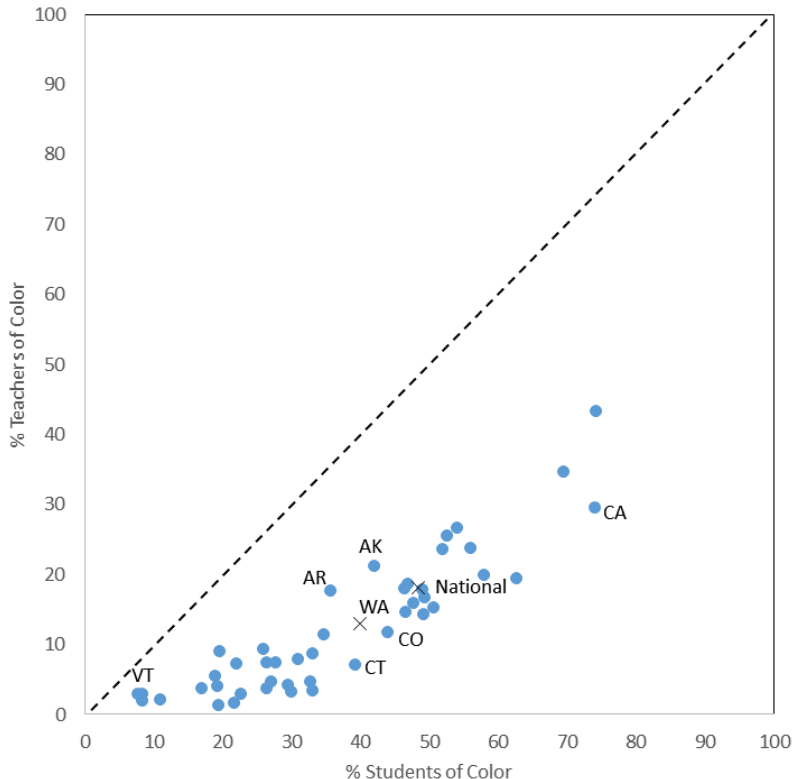
[1] In this figure, students and teachers of color include all non-white races and ethnicities. Later, we focus specifically on underrepresented minority (URM) students and teachers: American Indian, Black, and Hispanic.

Washington State, the focus of this report, is no exception. As shown in Figure 1, Washington State public schools in 2011-12 had more than three times as many students of color (39.3%) as teachers of color (13.0%), which is potentially problematic given both theoretical arguments and empirical evidence suggesting that students of color might benefit from a more diverse teaching workforce (Goldhaber, Theobald, & Tien, 2015). That said, Figure 1 also illustrates that Washington was near the median in terms of educator diversity among states with a similar percentage of students of color. Specifically, of the four states with the most similar percentages of students of color (all labeled in Figure 1), Arkansas and Alaska had *higher* percentages of teachers of color, while Connecticut and Colorado had *lower* percentages.

In this report, we first provide a "snapshot" of the current state of educator and student diversity in Washington State public schools, focusing specifically on teacher/student diversity gaps for three underrepresented minority (URM) groups: American Indian/Alaskan Native, Black, and Hispanic. We then provide some historical context by investigating trends in educator and student diversity in Washington State during the past 30 years, supplement this analysis with recent data on teacher candidates provided by 14 teacher education programs in Washington, and conclude with some broad takeaways.[2]

Current Teacher/Student Diversity Gaps

Figure 2 summarizes the percentages of URM teachers and students in the most recent year that data are available (2016-17) for all public schools in Washington State (first set of bars), and four individual school districts in Washington State (last four sets of bars). The height of each bar represents the total percentage of URM students or teachers, while the segments of each bar break this percentage into Black, Hispanic, and American Indian/Alaskan Native. Finally, the bracket within each group represents the "raw" teacher/student diversity gap, which we define as the difference between the percentage of URM students and the percentage of URM teachers. This gap across the entire state is 22.2 percentage points, meaning that the percentage of URM students in the state is 22.2 percentage points higher than the corresponding percentage of URM teachers, while the gaps in the districts we highlight range from 10.4% (Spokane) to 57.5% (Yakima).

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[2] *This research uses teacher candidate data provided by teacher education programs from the following institutions participating in the Teacher Education Learning Collaborative (TELC): Central Washington University (CWU), City University, Evergreen State College, Gonzaga University, Northwest University, Pacific Lutheran University, Seattle Pacific University, Seattle University, University of Washington Bothell, University of Washington Seattle, University of Washington Tacoma, Washington State University, Western Governors University, and Western Washington University. The research presented here uses confidential data from CWU. The views expressed here are those of the authors and do not necessarily represent those of CWU or other data contributors. Any errors are attributable to the authors.

Figure 2: Disaggregated Percentages of URM Teachers and Students in Washington and Select Districts, 2016-17
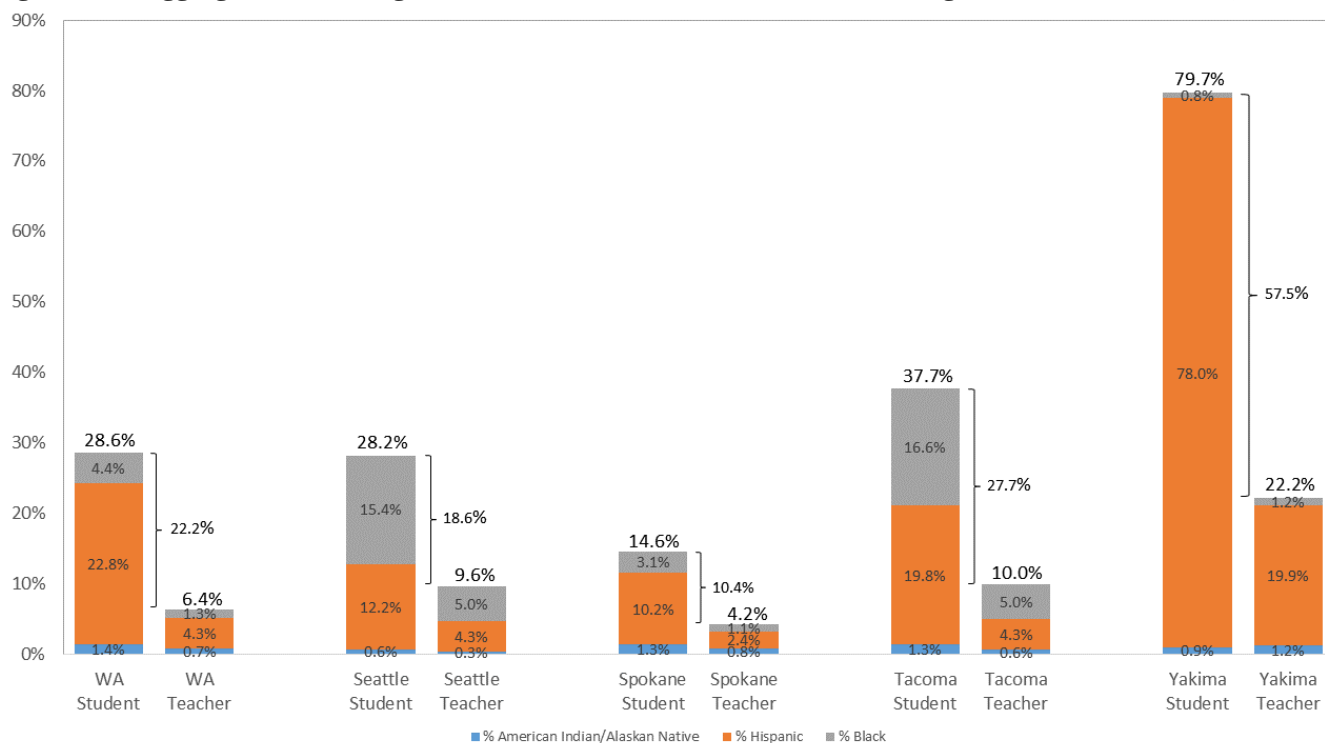
However, there is no agreed-upon way to measure diversity gaps in public schools, and different measures can give a different picture of how the gaps in these districts compare to each other. For example, when these gaps are represented as ratios, the diversity gap in Tacoma is actually larger than the gap in Yakima; specifically, while the percentage of URM students in Tacoma is roughly 3.8 times the percentage of URM teachers in the district, the comparable ratio in Yakima is closer to 3.6. Diversity gaps exist for each of the specific racial/ethnic groups in the state as a whole and for each district in Figure 2, but the largest diversity gap (both in terms of the raw gap and the ratio) is between Hispanic students and teachers; for example, the percentage of Hispanic students in the state (22.2%) is more than five times the percentage of Hispanic teachers (4.3) in 2016-17.

To put the magnitude of these gaps in context, if Seattle Public Schools wanted to hire enough Black teachers so that the percentage of Black teachers in the district equaled the percentage of Black students, they would need to hire 350 new Black teachers (or 52.9% of all Black teachers in the state working outside of Seattle). Likewise, if Yakima Public Schools wanted to hire enough Hispanic teachers to eliminate the gap between the percentage of Hispanic students and teachers in the district, they would need to hire 533 new Hispanic teachers (or 21.2% of all Hispanic teachers in the state working outside of Yakima).

Historical Trends in Educator and Student Diversity

The figures and discussion in the previous section emphasized the considerable mismatch between the diversity of the student body and (lack of) diversity of the public teaching workforce in Washington State. In this section, we explore these trends during the last 30 years (going back to 1988, the first year that student demographic data are available from the Public Elementary/Secondary School Universe Survey, published by the National Center for Education Statistics [NCES]).[3] Figure 3 plots the percentage of URM students (green solid line) and URM teachers (green dashed line) in Washington State public schools since 1988 (the green shaded area represents the teacher/student diversity gap over time). During the past 30 years, the percentage of URM students has increased by

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[3] See https://nces.ed.gov/ccd/pubschuniv.asp

almost 18 percentage points, while the percentage of URM teachers has increased by less than 3 percentage points. Put another way, while the percentage of URM teachers has increased by about 50% of its value in 1988, the percentage of URM students has increased by more than 150% during the same time period.

Figure 3: Historical Trends in State-Level Percentages of URM Teachers and URM Students
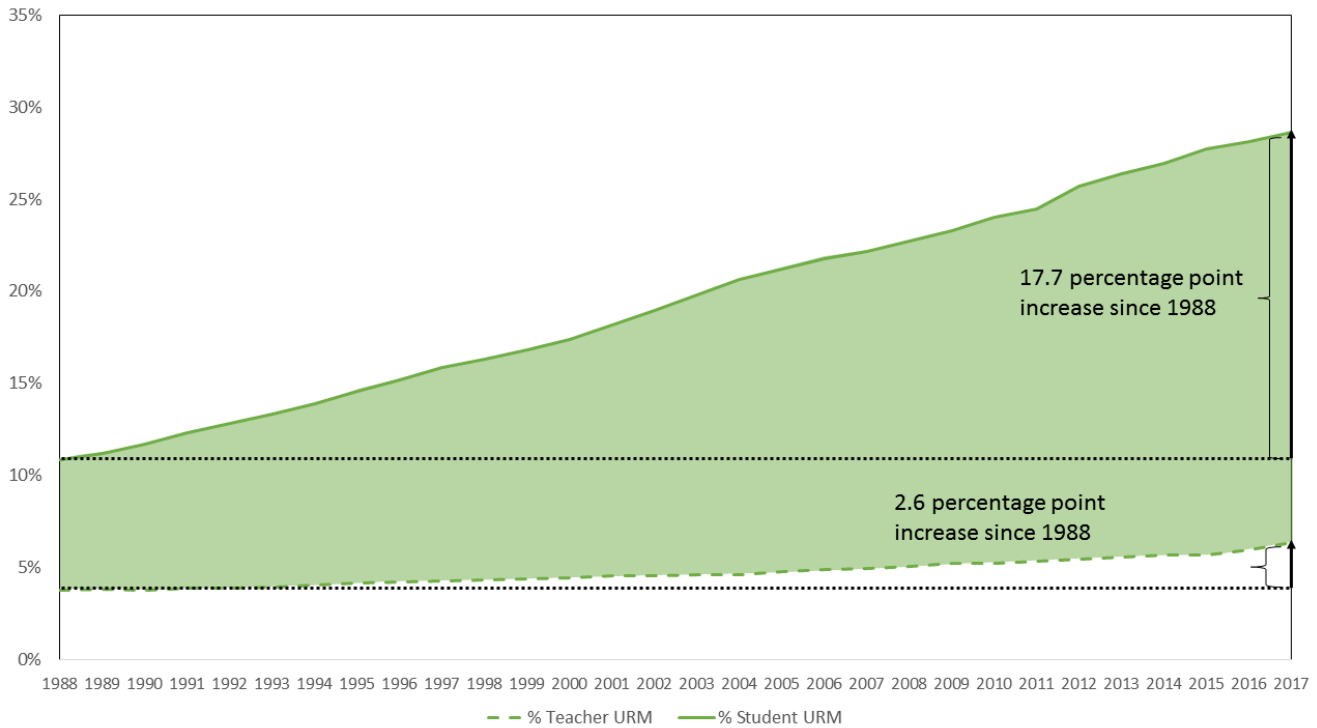
Clearly, the modest increases in the diversity of the teaching workforce in Washington State are not keeping up with the corresponding increases in the diversity of the state's students. To understand the sources of these expanding diversity gaps, Figure 4 breaks down the percentages in Figure 3 by racial/ethnic category. It is quickly apparent from Figure 4 that the gaps in Figure 3 are driven by a rapid increase in the percentage of Hispanic students in the state. Interestingly, when we consider the raw diversity gaps by racial ethnic categories (i.e., the vertical distance between each pair of dashed and solid lines in Figure 4), it is the gap between the percentages of Hispanic students and Hispanic teachers that has grown dramatically during the past 30 years, while the gaps for Black and American Indian/Alaskan Native teachers and students have remained relatively constant during this time period (and even narrowed somewhat during the past 5 years).

Figure 4: Historical Trends in State-Level Disaggregated Percentages of URM Teachers and URM Students
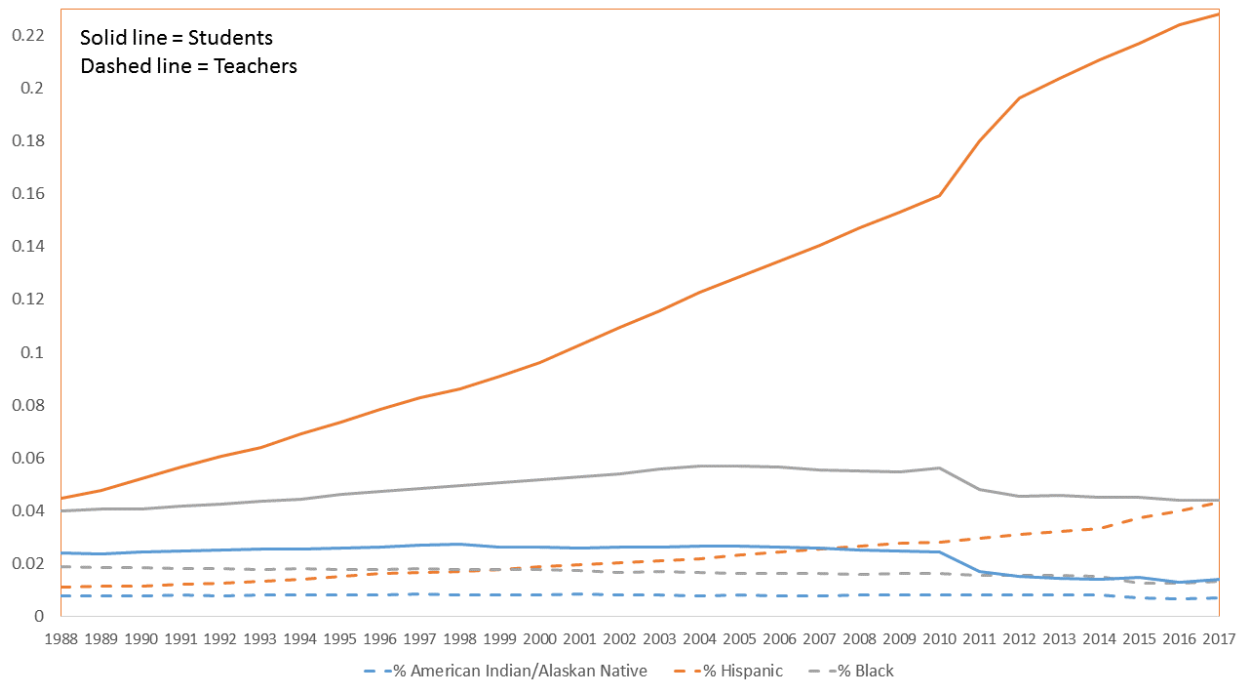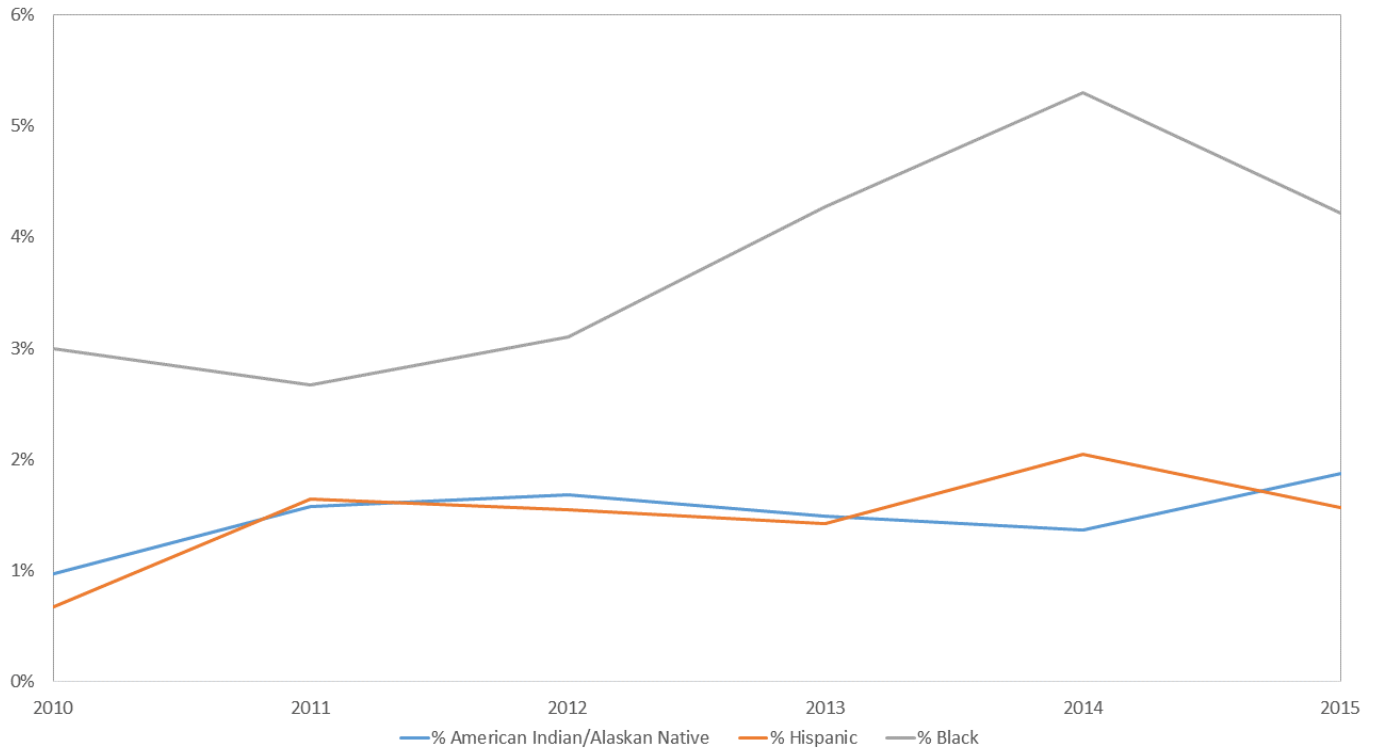

Teacher Candidate Diversity

A natural policy response to increase the diversity of the *inservice* teaching workforce is to increase the diversity of the *preservice* teacher candidate pool in the state. To investigate trends for preservice teacher candidates in the state, we use data on teacher candidates from 14 teacher education programs in Washington that are participating in the Teacher Education Learning Collaborative (TELC). The TELC dataset contains demographic information about all teacher candidates in these programs who completed student teaching in Washington public schools between 2010 and 2015, and thus provide a snapshot of the diversity of candidates from these programs in these years. Unfortunately, these data are not representative of the state as a whole, because several programs that disproportionately educate candidates of color (particularly Hispanic candidates) are not participating in TELC. Nonetheless, we can use these data to investigate trends from 2010-2015 for the programs that are participating.

Figure 5 plots the percentage of American Indian/Alaskan Native, Black, and Hispanic teacher candidates in these 14 programs from 2010 to 2015. These percentages increased by about 50% for each racial/ethnic group during this time period, which illustrates the potential to increase the diversity of the teacher candidate pool in the state.

Figure 5: Trends in Percentages of Teacher Candidates in TELC programs, 2010-2015

Legend: —% American Indian/Alaskan Native —% Hispanic —% Black

Conclusions

Given both the rhetoric around the importance of teacher workforce diversity and the empirical evidence suggesting that students of color might benefit from a more diverse teaching workforce (Goldhaber et al., 2015), this report presents a "glass half-full"/"glass half-empty" scenario for Washington State policy makers. On the "half-full" side, the state has made strides (particularly in recent years) to increase the diversity of the state's teaching workforce and teacher candidate pool; but, on the "half-empty side," these increases are not nearly keeping pace with increases in the diversity of the state's public school students (particularly among Hispanic students). Moreover, the pace of the diversification of the public school student body is unlikely to slow in coming years; for example, the NCES estimates that the percentage of U.S. public school students who are Hispanic will increase from 24% to 29% over the next 10 years (Snyder, 2014). Because of this, Washington State teacher education programs and districts will need to continue to recruit and hire far more URM (and particularly Hispanic) teachers to ensure that the diversity of the state's teaching workforce begins to reflect the diversity of its student body.

However, as we discuss in the companion paper (Goldhaber et al., 2015), teacher workforce diversity is just one of many competing objectives for improving the education system, and there may be substantial challenges and potential unintended consequences to diversifying the teacher workforce. Moreover, we must know much more about *why* there is a lack of diversity in the teacher workforce before we can design effective strategies to recruit more minority teachers. As one example, prior research (Goldhaber et al., 2014) found that candidates of color who graduated from six teacher education programs in Washington were *less likely* to become public school teachers in the state than their white peers, but it is unclear whether this reflects discrimination in hiring practices or differential preferences between candidates of color and other candidates. Nonetheless, the figures in this report illustrate just how far Washington State (and the country as a whole) has to go to ensure that the diversity of the teaching workforce reflects the diversity of the students they teach.

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Bridge to College English: Increasing College Readiness through Professional Collaboration and Student Opportunity

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Bridge to College English (BTCE) is a course designed for high school students likely to attend college but who may not yet be ready for the independence and rigorous expectations of college. The BTCE project has served approximately 7,500 students in Washington state, and the four BTCE academic years were marked by course development focused on students' college readiness, instructor professional development through Communities of Practice, and course implementation and refinement through collaborative K-16 processes. Implementation of complex educational practices such as those practiced through BTCE requires ongoing generative structures that allow for local adaptation within the essential characteristics of the course and program. As a result, BTCE continues to evolve through K-16 collaboration around key elements of college readiness.

Introduction

The Bridge to College English (BTCE) project entered its fourth academic year in 2017-18, serving approximately 7,500 students in Washington state in that time. Educators from across the state K-16 system have worked to create opportunities for students to envision themselves as college-bound by developing the skills, abilities, and mindset necessary for college success. Students and teachers consistently report that the course successfully meets these demands: In 2016, 92% of students surveyed said that BTCE improved their understanding of what will be expected in a college composition course, and more than 95% of BTCE teachers agree that the course provides adequate challenges for students to develop college readiness skills and abilities. The work continues for students and teachers alike in 2017-18 as BTCE introduces its first locally developed curriculum, revises the professional development structure, and continues to build bridges to college for students.

Nearly one-third of students enter their senior year of high school aware that they are not yet college ready in reading and writing (Office of Superintendent of Public Instruction, 2018). BTCE is a course designed for high school students likely to attend college but who may not yet be ready for the independence and rigorous expectations of college. Students entering the course typically score a two on the Smarter Balanced Assessment, are successful in their junior English classes, but are identified as students who could use instruction specifically geared toward independently reading, analyzing, and writing complex texts. With this in mind, the BTCE program attempts to address the crucial skills and abilities students need to develop in their senior year of high school to be prepared for English 101 and the reading and writing challenges they will face in their first year of higher education.

Development of BTCE

In the fall of 2013, high school and higher education faculty from Washington state began meeting to identify what it means to be college ready in reading, writing, critical thinking, and habits of mind. Using previously developed Washington state college readiness standards, the Common Core State Standards (CCSS) ("Common Core," 2018), and newly generated student profiles of college readiness, faculty from across the K-16 system developed and finalized BCTE Course Outcomes in the spring of 2014. The BTCE Course Outcomes are not meant to be comprehensive; instead, they are identified as the essential outcomes for the BTCE course and are connected to specific CCSS as indicated. Students who complete the Bridge to College English course should be able to:

- Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text. (CCSS.RL & RI.12)

- Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas. (CCSS.RL & RI.2)

- Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (CCSS.W.5)

- Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (CCSS.W.4)

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. (CCSS.L.1)

- Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively. (CCSS.SL.1)

- Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence. (CCSS.RL & RI.8)

- Write reading-based arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. (CCSS.W.1)

- Develop academic/analytical essays that are focused on a central idea and effectively organized. (CCSS.W.2)

Having determined Course Outcomes, K-12 and higher education teachers, faculty, and curriculum designers started the process of developing the BTCE curriculum. Participants considered the possibility of building all new materials, but since other states and regions had already developed a great deal of successful curriculum, they decided instead to examine, evaluate, and review available models:

- California State University Expository Reading and Writing Course (ERWC) ("California State University," 2018);

- Southern Region Education Board's Literacy Ready course ("Southern Regional Education Board," 2018);

- EngageNY ("EngageNY," 2018);

- Literacy Design Collaborative ("Literacy Design Collaborative," 2018); and

- Partnership for Assessment of Readiness for College and Career ("Partnership for Assessment," 2018).

Modules and units were selected by K-16 educators through a rigorous vetting process based on reviewers' expertise, BCTE Course Outcomes, and the CCSS. A rubric was developed that integrated the Course Outcomes with CCSS curricular alignment from Educators Evaluating Quality Instructional Products (EQuIP) rubrics ("Achieve," 2018). After reviewing more than 30 modules, educators narrowed the list for module piloting.

In addition to examining and testing curriculum, participants across the K-16 system collaboratively developed the Guiding Principles for the BTCE course. These principles are intended to provide guidance for the entire program, from the daily choices that teachers and students make in the classroom to the regional and statewide professional development that supports teachers and students. BTCE Course Guiding Principles include:

- Student-centered in Design and Implementation—This course provides students an opportunity to become college-ready. It is designed to build on students' capacity for growth and nurture habits of mind, in addition to addressing necessary areas for improvement.

- Habits of Mind are Integral to College and Career Success—Independence, grit, resilience, persistence, and metacognitive awareness, among others, are crucial for college and career success. Therefore, specific instruction in habits of mind is identified in the Course Outcomes and will be integrated throughout the course.

- Course Outcomes Emphasize College and Career Readiness—Course materials are selected and adapted based on the essential college readiness outcomes identified and developed by Washington state educators. The materials are aligned with the Common Core State Standards and Washington community and technical college developmental and pre-college English course outcomes.

- Teacher is the Professional in the Room—The emphasis is on professional choice at all times. Individual teachers make choices within the modules to implement lessons based on the students in their classroom and their professional expertise.

- Integrity to the Essential Characteristics of the Course Design—Complex educational improvement requires integrity rather than fidelity to course design. Implementation of the course with integrity means adherence to the essential K-16 collaboratively designed characteristics of the course: the Course Outcomes, completion of six modules (two with book-length texts, one activity in each of the six parts of the ERWC Assignment Template ("California State University," 2018) in each module, and use of the summative assessment as is in the module.

- Course Assessments—The curriculum contains high quality assessments that create opportunities for students to produce artifacts leading to college readiness. The formative and summative assessments in the course are ongoing, meaningful, and relevant.

- Driven by Communities of Practice (CoPs) (Wenger, 1998)—This course creates opportunities to form authentic partnerships between K-16 educators on a regional level. These partnerships focus on meaningful conversations around student learning, assessment, Course Outcomes, and instructional strategies. The course will evolve and change as practiced. Students, teachers, and Communities of Practice provide ongoing feedback on all aspects of the course for continual improvement and revision.

In January of 2015, interested high school teachers met for two days to review the modules and units and select one to pilot in their high school classrooms during the spring 2015. Thirty-six teachers across the state piloted a wide variety of modules in high schools large and small, rural and urban. Pilot teachers and students provided extensive feedback on the modules via webinars, face to face regional meetings, and telephone interviews with researchers. Members from the project leadership team also participated in three days of ERWC teacher training at California State University-Northridge to gain insight into ERWC and the challenges of implementing a college readiness course statewide.

Implementation of BTCE

After piloting and refinement, the BTCE curriculum was finalized and offered in full during the 2015-16 academic year. In this first full year of implementation, there were 74 districts, 114 high schools, and 104 teachers offering the BTCE course. In the 2016-17 academic year, 97 districts, 134 high schools, and 139 teachers were offering the BTCE course. In the current 2017-18 academic year, there are 60 participating districts, 89 high schools, and 127 teachers with approximately 2500 students. Participation declined slightly in 2017-18 for reasons unrelated to the teaching and learning successes of the program. At the time, long term funding was somewhat uncertain. Additionally, some districts chose to proceed with the course but forgo the grant and support from the project because their teachers had participated in the training and were familiar with the curriculum. These particular cases were difficult to track. In total, by the end of the 2017-18 academic year, approximately 7,500 students in Washington state will have benefited from the BTCE program. As of April 2018, grant applications are up for the 2018-19 academic year with district, high school, and teacher numbers higher than any previous year.

During the 2015-16 academic year, K-16 faculty continued to meet to develop additional supporting documents and tools for teachers. An argumentative rubric was created for use with the summative assessments in the modules that require students to write argumentative essays. The rubric was then used by BTCE teachers and leaders to norm student writing. Sample student essays were assessed and organized to help teachers identify levels of college readiness in their classrooms. Collaborative meetings also developed grading principles that support teachers' classroom assessment practices in their local contexts.

In the 2016-17 academic year, the same modules from the previous year were available, but teachers and curriculum designers from around the state developed new modules, still based on the ERWC Assignment Template ("California State University," 2018), that incorporated local issues and regionally engaging texts. The 2017-18 BTCE curriculum now includes seven new modules for teachers, six of which were developed by their colleagues around the state, and additional modules are currently under construction by Washington state teachers and curriculum designers. An additional eight new locally developed modules are currently under review for inclusion in the 2018-19 curriculum.

Professional Development through Communities of Practice

Teachers work in a learning community support system—Communities of Practice (CoPs) (Wenger, 1998)—which connects high school teachers, college faculty, and instructional experts in ongoing regional partnerships to foster authentic learning for all participants. Teachers explore the units of study with other teachers, gain insight into the units, and share common assessments. Using common assessments, either for reading, discussion, or writing, is intended to allow the teachers to have important discussions based on common criteria and experiences. Participants work to improve their craft and increase student progress toward the Course Outcomes by discussing best practices, evaluating the units of study, working directly with higher education partners, participating in essay norming, sharing experiences, and visiting higher education campuses to observe college composition courses and meet with instructors. Working with the higher education partners, high school teachers are able to gain a better understanding of the skills incoming college freshman need, what students will encounter in a college course, and reexamine preconceived thinking or beliefs of college-readiness. While the BTCE Course Outcomes, Guiding Principles, and curriculum are powerful, there is no question that the CoPs are a key element in the evolution of the course and the students it serves.

Academic Preparation for Students

BTCE aims to provide students the necessary scaffolding in English language arts to become readers of complex texts and writers engaged in thoughtful academic discussions. All units of study are designed to ensure students are engaged in rich pre-reading, close reading, and analytical activities. Students in BTCE learn to read for purpose and audience. Because the class focuses on college and career readiness, students are practicing the skills laid out in the CCSS. They are provided opportunities to practice skills, through scaffolding, to read texts closely in order to determine what the text says explicitly as well as to make logical inferences. Whether reading fiction or non-fiction, students also learn to determine central ideas or themes of a text and analyze their development.

Students learn to cite specific textual evidence when writing or speaking to support conclusions drawn from the text. Additionally, students are expected to write analytical and argumentative essays to demonstrate their knowledge and integrate information from multiple sources including sources found through their own research. Students evaluate texts for their use of logic and reasoning, and they employ rhetorical devices in their own analytical and argumentative writing to support their claims. The scaffolding embedded in the curriculum and provided by teachers allows students multiple opportunities to build reading and writing skills, work with and within texts, and use a process of revision to write with clear purpose. Students practice and build the skills necessary for college readiness and gain experience in the kind of reading and writing expected in the college classroom.

Additionally, this course provides opportunities for students to practice habits of mind that are built into the CCSS for English language arts, especially as they pertain to understanding rigorous texts and working toward independence. High school students are often dependent on teachers supporting them in their classes; however, in BTCE, the support specifically includes work on perseverance, grit, and metacognitive awareness. Teachers are provided training in habits of mind, CoPs discuss strategies for teaching those habits of mind, and material is available for students to practice and gain those skills—all of which are essential in the college classroom. Students are encouraged to become self-directed learners who can engage in academic tasks independently. Additionally, students are expected to respond to the varying demands of audience, task, purpose, and discipline as they comprehend and critique rigorous texts.

Initial Research Findings

In March of 2018, The BERC Group, an independent evaluation, research, and consulting firm, produced an initial impact report on the Bridge to College project (Baker, Mehlberg, & MacNeille, 2018). Overall, their research findings indicate that students viewed BTCE positively, and their performance in college reflected that positive impact. The research compared BTCE students who earned a B or better in the course with their peers who recently graduated from high school and entered college without having taken the course. BTCE students earning a B or better enrolled in English 101 at a 30% higher rate than their peers who did not take BTCE (p. 13). In addition, the data shows that BTCE students who would not have placed into college level English based on Smarter Balanced Assessment scores were more likely to earn college level English placement (p. 8-14) and outperform their peers in college level English courses (p. 16-20). BTCE students indicated that the pacing of the course (p. 27), the value of the content (p.26-27), and the relationships built with teachers were highly valuable (p. 25-26). The level of independence and the writing demands were highlighted as key elements in their success when transitioning to college level English expectations (p. 27). The researchers concluded that the course provided a "glimpse into postsecondary opportunity" which helped students in "building confidence" and a "growth mindset" (p. 30).

Conclusion

The BTCE Course Outcomes, Guiding Principles, grading principles, assessment rubric, and modules provide the foundation for teachers and students to engage in complex, meaningful learning that prepares students for the college and career challenges they face immediately after high school. Implementation of complex educational practices such as those practiced through BTCE requires ongoing generative structures that allow for local adaptation within the essential characteristics of the course and program. As a result, BTCE continues to evolve and develop with intense K-16 collaboration around the key elements of college readiness. The collaborative process essential to BTCE must continue to support students' successful navigation of the high school to college transition.

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Acknowledgements

"We are more than one box": How Identity, Bias, and Climate Impact Adolescents of African Descent

Shelby Cooley, Community Center for Education Results

The messages Black youth receive in schools about how they matter as individuals and as members of ethnic and racial groups are influential in constructing their developing ethnic and racial identities (ERI). Little research has examined how ERI varies among African American and first- and second-generation East-African adolescents. Additionally, how perceptions of in-school racism and bias may vary within a group and be associated with adolescents' overall evaluation of school climate. This study examined within-group variance on two dimensions of ERI and the association between perceived bias and school climate among an ethnically diverse sample of Black adolescents in the Puget Sound Region. Findings reveled variance in protective identity factors, yet no within-group differences in school climate. Perceived bias had a significant negative impact on school climate. Implications for findings are in the need for deeper-subracial disaggregation and use of standardized school climate surveys in Washington State.

Introduction

Ethnic and Racial Identity (ERI) Development

While the racial and ethnic discrimination Black youth face pose significant threats to their development and well-being, adaptiveness and resilience are central to Black identity. Black youth are equipped with ethnic and racial identities (ERI) that promote positive development and protect (or serve as a buffer) against *some* of the damaging effects of bias and discrimination (Neblett, Rivas-Drake, & Umana-Taylor, 2012).

ERI development is the process by which children and adolescents construct meaning about themselves and their membership within their group (or groups). It begins early in life, with first lessons coming from parents and caregivers (Harding, Hughes, & Way, 2016; Umaña-Taylor, Bhanot, & Shin, 2006). For Black families, this means helping children understand their identity as an individual and how it fits within a larger group identity—whether they are African-American or U.S.-born children of Ethiopian immigrants. A necessity to these lessons, unfortunately, is preparing their children for a world filled with bias (Garcia Coll. et al., 1996; Hughes, 2003; Neblett et al., 2012).

Protective ERI factors can enable youth to understand harmful, stressful situations and even covert acts of interpersonal racial bias (Yip & Douglass, 2011). Protective identity factors can be measured by the extent to which Black youth understand how society treats Black people. This helps protect against some of the psychologically damaging effects of racial bias and discrimination (Greene, Way, & Pahl, 2006; Rivas-Drake et al., 2014; Seaton, Yip, Morgan-Lopez, & Sellers, 2012; Umaña-Taylor et al., 2014; Yip, Seaton, & Sellers, 2006). Promotive ERI factors are associated with high self-esteem, academic success, and positive psychological well-being (Neblett et al., 2012; Seaton, Upton, Gilbert, & Volpe, 2014). Promotive identity factors can be measured by the extent to which youth feel their group is central to who they are. Research shows most children of color, and particularly Black children, grow up within communities that encourage them to positively identify with their race.

Racial Bias

Systemic inequity disproportionately impacts children of color. Among Black youth this is evident across many measures of well-being (Bentley-Edwards, Thomas, & Stevenson, 2013; Brody et al., 2006; Howard, Rose, & Barbarin, 2013; Pfingst, Powell, & Hernandez, 2015). Black youth are especially overrepresented on educational risk measures, such as low academic performance and discipline (Greene et al., 2006; Neblett, Terzian, & Valencia, 2010; Verkuyten, 1998).

These patterns are a cause for concern because these conditions, created by structural oppression, ripple through family and community. They limit the likelihood of our children's future engagement in family and civic life, spurring intergenerational cycles of oppression (Fordham & Ogbu, 1986; Griffin, Cunningham, & George Mwangi, 2016; President's Commission, 2015). Racism, and specifically racial bias (the attitudes that stem from believing racist ideologies), have tangible impacts on youth-of-color and Black youth who confront it daily (Cooley, Elenbaas, & Killen, 2016; Cooley, Elenbaas, & Killen, 2013; Seaton, Yip, & Sellers, 2009). The systemic nature of racism and oppression affect all Black youth. Yet, little is known about within-group variance among Black students' perceptions of bias and its association with overall school climate.

School Climate

How children and youth experience the climate of their schools impacts their later achievement and success. Research confirms what families, youth and teachers have known for decades: a safe and supportive school environment, where students have positive social relationships, are respected, engaged in their work, and feel competent, matters (Amodio & Mendoza, 2010; Bottiani, Bradshaw, & Mendelson, 2016; Bradshaw, Waasdorp, & Leaf, 2015; Wigfield & Eccles, 2000).

School climate is a broad term used to describe the learning environment, referring to the quality of school life. School climate can be reflected in the norms, goals, values, interpersonal relationships, teaching, learning and leadership practices, and organizational structures. A school's climate is most commonly measured through student and adult perception of these features. A sustainable, positive school climate fosters youth development and learning wherein students feel socially, emotionally and physically safe. Youth are engaged and respected in these spaces. Positive school climates are ones in which students, families and educators work together to develop, live and contribute to a shared school vision (Griffin et al., 2016; Low, Van Ryzin, Brown, Smith, & Haggerty, 2014; Voight, Hanson, O'Malley, & Adekanye, 2015). Given myriad positive social and academic outcomes for youth in schools with positive climates, it is critical to then understand what impacts Black youth perceptions of climate in their own schools.

Study Questions and Methods

The current study set out to examine within-group variance in ERI among Black adolescents and their perceptions of bias as it may be associated with school climate, to answer two questions:

(1) Do African American adolescents experience their identities in similar ways as their East African peers?

(2) Do Black adolescents perceive racism and bias in their schools and are these associated with their overall perceptions of school climate?

Participants

Participants were high school students from three districts in the Puget Sound region in Washington. There were 87 participating adolescents. Ten students were removed from analyses as they did not self-identify as Black or of African descent, leaving 77 participants ($N_{Males} = 54$; $M_{AgeMales} = 16.38$; $N_{Females} = 23$; $M_{AgeFemales} = 16.54$), described below (see Tables 1 and 2).

Table 1: Participant Self-Identity

Group	Ethnicity	N	Proportion
African American	African American	49	64%
Caribbean	Jamaican	1	1%
East African	Somali	11	14%
	Ethiopian	4	5%
	Kenyan	3	4%
	Eritrean	2	2%
Black Multiracial	Black Multiracial	7	9%
	Total	77	100%

Table 2: Participant Age and Gender Identity

		Age (Years)		
	N	Average	Min Age	Max Age
Male	54	16.38	14.48	18.29
Female	23	16.54	15.18	18.14
Total	*77*	*16.43*	*14.48*	*18.29*

Procedures

Signed parental consent and individual adolescent assent was obtained for all participants. Adolescents who were 18-years or older provided signed individual assent only. Once consent and assent were obtained, semi-structured, same-gender focus groups were held. Focus group sessions were approximately 90-minutes in length and facilitated by a trained community consultant and research scientist, both of African descent. During sessions, participating students were asked the same set of open-ended questions, and completed racial identity, perceived in-school racial bias and school climate survey. For their participation, students received a $20 honorarium, bus fare if needed, and light snacks were provided at each session.

Measures

Ethnic and Racial Identity Two constructs of ERI were measured. To assess promotive factors, the *Strength of Identity Scale* (SOIS: Barrett, 2005) was used; to assess protective factors the *Public Regard* sub-scale from the Multi-dimensional Inventory of Black Identity-Teen (MIBI-T: Scottham, Sellers, & Nguyên, 2008) was used. Lower *Public Regard* is associated with greater awareness of society and more protective identity for Black youth (Seaton et al., 2012). Both surveys were selected as they had been validated with Black adolescents.

Racial Bias One item was used to measure participants' perception of racism and bias at their schools: "Racism and bias is not an issue at my school" (1= Strongly Disagree; 5 = Strongly Agree). This item was reverse coded, included in the correlation matrix and used as an independent variable in the regression model.

School Climate Three constructs of school climate were measured: *Supportive Learning Environment*, *Sense of Belonging* and *High Standards and Expectations* (Highline Public School GEAR UP Climate Survey, 2015). This survey measure was used because it is currently used in Highline Public Schools, a district in the Puget Sound region, and has achieved strong construct validity.

Analysis Plan

Each construct of the ERI and school climate measures was statistically validated. The factorability of these constructs was examined separately using Principal Components Factor Analysis to extract the fewest number of uncorrelated components from the greater sets of variables. Two well-recognized criteria for the factorability of a correlation were used: Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity (See Appendix C). Analyses of Variance (ANOVA) were conducted on both ERI constructs and a multiple linear regression and correlation analyses were conducted across constructs to assess how identity and gender perceptions of bias contributed to variance in school climate.

Results

Racial Identity

To examine the first question regarding whether protective and promotive ERI factors different are among participants, a 2 (Subracial group: African American, East African) × 2 (Gender: Female, Male) ANOVA with repeated measures on the last factor was run for each of the protective and promotive ERI constructs. A main effect for subracial group was found for protective ERI, $F(1, 62)$ 14.08, $p < .001$ $\eta_p^2 = .19$, $\alpha = .96$, such that East African adolescents evaluated their group to be more positively perceived by society than their African American same-aged counterparts ($p < .001$, $S_{EA} = 11.05$, $SD_{EA} = 2.72$; $S_{AA} = 8.39$, $SD_{AA} = 2.79$). This protective ERI construct (*Public Regard*) is negatively associated with positive social development, such that a lower score indicates more status awareness and thus more psychologically protective. African American students were more aware of their group being treated negatively by society than their East African peers.

There were no significant differences by gender or for promotive ERI factors. Both African American and East African adolescents had high promotive factors (see Table 3). Taken together, these findings suggest that African American adolescents had an adaptive identity profile. African American adolescents had more awareness of how society treats their group and a positive self-perception of their racial group, seeing their group as central to who they are. While East African adolescents had an equally strong positive perception of their group, they had less awareness, evaluating society as treating their group well.

Table 3: Promotive and Protective Ethnic Racial Identity Factors by Generational Status

	African American			East African		
	Score	*SD*	SE	Score	*SD*	SE
Protective (R)	8.39	*2.79*	0.35	11.05	*2.72*	0.34
Promotive	18.79	*1.86*	0.23	18.25	*2.00*	0.24

Protective: F (1, 62) 14.08, p < .001 η_p^2 = .19, α = .96; Promotive: ns.

Racial Bias and School Climate

To examine the second research question about Black adolescents' perceptions of in-school racism on school climate, a Multiple Regression analysis was run. The distribution of responses on the perceived in-school racism item revealed that 31% of Black students strongly agreed that racism and bias was an issue at their school, 27% agreed, 16% were neutral, 17% disagreed and 9% strongly disagreed. Overall, 58% of Black adolescents evaluated racism and bias to be an issue in their current school. Before creating the composite school climate dependent variable, the collinearity and factor loadings of *Sense of Belonging*, *High Standards and Expectations*, and *Supportive Learning Environment* climate constructs were run (see Appendix C). The model tested whether Black adolescents' subracial group, gender and level of perceived in-school racism predicted their composite school climate score (see Table 4 for correlation).

Table 4: School Climate and Demographic Variables: Correlations and Descriptive Statistics

	1	2	3	4	5	6
1. Subracial Group	–					
2. Gender	-0.07	–				
3. Sense of Belonging	0.08	-0.20	–			
4. High Standards and Expectations	0.18	-0.04	0.51***	–		
5. Supportive Learning Environment	0.21	-0.01	0.48***	0.61***	–	
6. Perceived Racism	-0.07	0.11	-0.55***	-0.49***	-0.40***	–
Mean	1.56	0.70	7.09	15.58	18.72	3.69
SD	0.91	0.46	2.36	3.17	4.39	1.52

*p < .05. **p < .01. ***p < .01.

The results of the regression indicated that perceived in school racism and bias explained 56% of the variance in school climate F (3, 70) 11.34, p >.001, R =.581 (see Table 5). Participant's evaluations of school climate decreased -2.97 for each unit increase in perceived racism. Subracial group and student gender were not predictive of school climate.

Table 5: Regression Analysis for Variables Predicting School Climate

	M	*SD*	R^2		*B*	*SE (B)*	β	
					Multiple Regression Weights			
Gender	0.70	0.46	-0.08		1.51	0.88	0.171	
Subracial Group	1.56	0.91	0.20		0.14	1.87	0.008	
Perceived Racism	3.69	1.52	-0.56	***	-2.97	0.55	-0.548	***

*p < .05. **p < .01. ***p < .01.

Discussion

While there is a growing field of ERI development research (Umaña-Taylor et al., 2014), few studies to date have examined within-group differences in racial and ethnicity identity among Black adolescents and their evaluations of climate and racial bias. Given the diversity of Black youth in the Puget Sound region by nationality, ethnicity and generational-status, the current study set out to understand if and where there might be differences in how Black adolescents experience their ethnic and racial groups, perceive in-school bias, and evaluate their schools' climate.

Findings revealed that Black adolescents overall had strong promotive identities, indicating that they see their group as positive and a central aspect of who they are. There were no differences in promotive identity factors by subracial group. However, when it came to protective identity factors, there was a significant difference, suggesting first- and second-generation East African youth (youth who self-identified as Somali, Ethiopian, Kenyan, and Eritrean) may be more vulnerable than their African-American peers when confronted with instances of racism. This finding is supported within the emerging literature. One study found first generation Black immigrant college students to be less aware of racism on campus than their second-generation peers (students of immigrant parents) and native-born Africa American college peers who perceived a lack of racial diversity and experienced marginalization on campus (Griffin et al., 2016).

Racial identity allows Black youth to think more positively about themselves, equipping them with specific strategies and skills to successfully negotiate certain challenges they encounter. While overall Black adolescents in the current study had strong promotive identities, the significantly lower protective identities among East African

adolescents suggest that they may have a harder time shielding themselves from the impacts of racism. All Black youth benefit from environments that safely, critically and openly discuss race and make visible the many cultures Black youth represent.

At the center of youth success are supportive spaces where adults and students have high expectations and youth feel like they belong. The current study found most Black students perceived racism and that this was the strongest predictor of negative school climate. These results suggest that perceived racial bias impacts how Black students experience the overall adult support at their schools. Taken together, while Black youth are resilient and have strong promotive racial identities, there is much work to be done to reduce racism in schools while creating spaces that increase the protective elements of racial identity.

Conclusion

School climate data can provide a standardized way to pinpoint features of school environments that can lead to student success. As of the release of this article, there is no common school climate measure used across K-12 districts in Washington State. However, there are state and regional efforts to refine and validate climate and social emotional learning measures, including the use of these data in school continuous improvement efforts. While this small sample of students may not represent all Black adolescents, these findings provide a window to how youth experience their schools. When adults can track, challenge their biases and promote discourse on race, we can create learning spaces that are equitable and safe, enabling all youth to thrive.

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Appendix A: Racial Self-Identification and ERI Protocol Excerpt

Please check all that apply OR write-in

☐ American Indian	☐ Black/African American	☐ Hispanic/Latino	☐ Asian	☐ Pacific Islander	☐ White	☐ Multiracial
☐ Chehalis	☐ African American	☐ Mexican	☐ Korean	☐ Native Hawaiian	☐ _____	☐ _____
☐ Tulalip	☐ Somali	☐ Honduran	☐ Chinese	☐ Fijian		
☐ Lummi	☐ Ethiopian	☐ Salvadorian	☐ Japanese	☐ Tongan		
☐ Nisqually	☐ Eritrean	☐ Cuban	☐ Thai	☐ Samoan		
☐ Suquamish	☐ Kenyan	☐ Puerto Rican	☐ Vietnamese	☐ _____		
☐ _____	☐ Senegalese	☐ _____	☐ Taiwanese			
	☐ Haitian		☐ Laotian			
	☐ _____		☐ Hmong			
			☐ Filipino			
			☐ _____			

Select one and write it here:

Thanks! Let's talk about **this** one. Every time you see this ★orange star it means being a part of **this** group.

After reading each question, check one box.
If you don't want to answer select "no answer"

	Not at all	A little bit	Some what	Mostly	Very much	No Answer
1. How much do you feel ★?	☐	☐	☐	☐	☐	☐
2. How proud are you about being ★?	☐	☐	☐	☐	☐	☐
3. How important is it to you that you are ★?	☐	☐	☐	☐	☐	☐
4. How much do you like or not like being ★?	☐	☐	☐	☐	☐	☐

There are people from all different places some people who are ★ like you and some who are from other ethnic and racial groups. How much do you agree or disagree with these statements?

	Really disagree	Kind of disagree	Neutral	Kind of agree	Really agree	No Answer
5. Most people think that ★s are just as smart as people from other ethnic and racial groups.	☐	☐	☐	☐	☐	☐
6. People think that ★s are just as good as people from other ethnic and racial groups.	☐	☐	☐	☐	☐	☐
7. People from other ethnic and racial groups think that ★s have done important things.	☐	☐	☐	☐	☐	☐

Appendix B: All Survey Items

Measure (Citation) and Items	Scale
Strength of Identity Scale (SOIS: Barrett, 2005) How much do you feel [racial/ethnic group]? How proud are you about being [racial/ethnic group]? How important is it to you that you are [racial/ethnic group]? How much do you like or not like being [racial/ethnic group]?	1=None to 5=A Lot
Multi-dimensional Inventory of Black Identity-Teen (Public Regard, MIBI-T: Sellers, et al., 2007) Most people think that [people of my group] are just as smart as people from other ethnic and racial groups. People think that [people of my group] are just as good as people from other ethnic and racial groups. People from other ethnic and racial groups think that [people of my group] have done important things.	1=Agree to 5=Disagree
Sense of Belonging (Highline Public Schools GEAR UP Survey, 2015) My culture and ethnicity are respected at my school. Students at my school are very respectful of my culture and ethnicity.	1=Agree to 5=Disagree
High Standards and Expectations (Highline Public Schools GEAR UP Survey, 2015) My friends expect me to go to college. Teachers believe that all students can do well. Teachers have high expectations of me. Teachers are clear about what I am supposed to learn.	1=Agree to 5=Disagree
Supportive Learning Environment (Highline Public Schools GEAR UP Survey, 2015) I feel safe when I am at school. I trust my teachers. I feel connected to one or more adults at my school If I tell a teacher or other adult that someone is bullying me, that person will do something to help. If I get behind in school there will be an adult at school to help make a plan to get caught up.	1=Agree to 5=Disagree
Novel Survey Items Racism and bias is not an issue at my school. (R) I am satisfied with the college and career activities at my school.	1=Agree to 5=Disagree

Appendix C: Factor Loadings

Factor Loadings for Strength of Identification (SOIS: Barrett, 2005)

	M	*SD*	*N*	Factor Loading	Communalities	Initial Eigenvalues		
						Total	% Var	% Cmltv
Feel	4.45	0.87	75	0.75	0.56	2.19	54.75	54.75
Proud	4.77	0.65	75	0.81	0.66	0.80	20.09	74.85
Important	4.57	0.98	75	0.61	0.37	0.53	13.13	87.97
Like	4.53	0.95	75	0.78	0.60	0.48	12.03	100.00

For *Strength of Identification,* all 4 items correlated at .4 or above with at least one other item, suggesting factorability. The Kaiser-Meyer-Olkin measure of sampling adequacy was .728, above the recommended value of .6, and Bartlett's test of sphericity was significant, $c^2(75) = 58.216$, $p < .001$. The communalities for each *Strength of Identification* item were all above .3, further confirming that each item shared some common variance with other items, thus no items were removed.

Factor Loadings for Public Regard (Public Regard, MIBI: Sellers, et al., 2007)

	M	*SD*	*N*	Factor Loading	Communalities	Initial Eigenvalues		
						Total	% Var	% Cmltv
Smart	2.83	1.38	71	0.89	0.80	2.05	68.41	68.41
Good	3.07	1.26	71	0.87	0.76	0.67	22.40	90.81
Things	3.42	1.31	71	0.70	0.49	0.28	9.19	100.00

For *Public Regard*, all 3 items correlated at .3 or above with at least one other item, suggesting reasonable factorability. The Kaiser-Meyer-Olkin measure of sampling adequacy was above the recommended value of .6, at .626 and Bartlett's test of sphericity was significant, $c^2(71) = 65.931$, $p < .001$. The communalities for each *Public Regard* item were all above .3, further confirming that each item shared some common variance with other items, thus no items were removed.

Factor Loadings for *Sense of Belonging (GEAR UP Survey, 2015)*

	M	*SD*	*N*	Factor Loading	Communalities	Initial Eigenvalues		
						Total	% Var	% Cmltv
School Respect	3.62	1.25	76	0.91	0.82	1.65	82.40	82.40
Peer Respect	3.47	1.34	76	0.91	0.82	0.35	17.60	100.00

For *Sense of Belonging,* items correlated at .548, suggesting factorability. The Kaiser-Meyer-Olkin = .50, above the recommended value of .5, and Bartlett's test of sphericity was significant, $c^2(76) = 40.01$, $p < .001$ The communalities for each *Sense of Belonging* item were all above .3, further confirming that each item shared some common variance with other items, thus no items were removed.

Factor Loadings for *High Standards and Expectations (GEAR UP Survey, 2015)*

						Initial Eigenvalues		
	M	*SD*	*N*	Factor Loading	Communalities	Total	% Var	% Cmltv
Peer College	4.30	1.06	73	0.36	4.30	2.07	51.75	51.75
Belief	3.51	1.24	73	0.84	3.51	1.25	31.21	82.97
Expectations	4.10	1.02	73	0.78	4.10	0.53	13.34	96.31
Clear Learning	3.67	1.24	73	0.74	3.67	0.15	3.70	100.00

The Kaiser-Meyer-Olkin measure of sampling adequacy was .66, above the recommended value of .5, and Bartlett's test of sphericity was significant, $c^2(73) = 46.89$, $p < .001$.

Factor Loadings for Supportive Learning Environment (GEAR UP Survey, 2015)

						Initial Eigenvalues		
	M	*SD*	*N*	Factor Loading	Communalities	Total	% Var	% Cmltv
Safe	4.05	1.05	75	0.60	0.84	2.43	48.62	48.62
Trust	3.29	1.19	75	0.69	0.72	1.07	21.48	70.09
Connect	3.73	1.32	75	0.72	0.76	0.65	12.92	83.01
Bully	3.72	1.37	75	0.74	0.65	0.47	9.39	92.40
Help	3.92	1.33	75	0.73	0.53	0.38	7.60	100.00

The Kaiser-Meyer-Olkin measure of sampling adequacy was .681, above the recommended value of .5, and Bartlett's test of sphericity was significant, $c^2(75) = 85.90$, $p < .001$.

Moving Social-Emotional Learning to the Forefront:
A Case Study of the Everett Public Schools

Becky Ballbach and Catherine Matthews, Everett Public Schools

As a result of concerted efforts during the last 12 years, social-emotional learning (SEL) has emerged as a focus for Everett Public Schools. Beginning with a goal of increasing graduation rates, the journey to ensure each student graduates college, career, and life ready has been embraced at all levels of the organization. This brief case study describes the path the district took in partnership with other organizations which led to a shift in focus from meeting the needs of all students to meeting the needs of each student.

District Context

Everett Public Schools is a large urban district in northwest Washington that serves more than 20,000 students in 27 schools across the cities of Everett and Mill Creek. The district is ethnically and socio-economically diverse. The state's Report Card (Office of Superintendent of Public Instruction, 2018a), the largest subgroups in the school district are Hispanic/Latino(a) students at 18.6% and Asian students at 13.2% of the population district-wide. In May 2017, about 38% of the students qualified for free or reduced-priced meals district-wide. The rate ranged from a high of 87% at Hawthorne Elementary to a low of just under 8% at Forest View Elementary. In addition, nearly 14% were students with a disability and qualified for Special Services, and 13% qualified for the state's Transitional Bilingual (English Learner) program. More than 90 languages are spoken by students in the district.

In the 2003-04 school year, the district's on-time graduation rate was an alarming 58.0% (Office of Superintendent of Public Instruction, 2005). As a result, the district convened an On-Time Graduation Summit during the 2004-05 school year to focus on improving on-time graduation rates. District administrators, counselors, principals, and higher education partners came together to develop a plan to remove barriers to on-time graduation and post-secondary success.

This summit evolved into weekly On-Time Graduation meetings which continue to this day. The initial focus of the meetings was on designing systems to ensure data accuracy, monitoring student progress, and providing systematic interventions. As with all change, Everett experienced significant increases initially with relatively small resource allocations. For example, ensuring that students who had transferred to other schools were contacted for proper documentation eliminated inaccurate dropout numbers. Leading and trailing indicators were identified such as attendance rates, failure rates, credit acquisition, disciplinary incidents, and withdraw code data. These data were monitored regularly and goals were set for each.

As the work of the On-Time Graduation Committee progressed, the focus was shifted from interventions aimed at groups of students with similar characteristics to interventions focused on the unique needs of individuals. Interventions were developed and evaluated for their effectiveness, and those that were ineffective were abandoned. As graduation rates began to increase, the conversation shifted from On-Time Graduation to helping students transition effectively to their postsecondary opportunities.

New Focus from the Strategic Plan

In January of 2011, the district's Strategic Plan was redeveloped, and the underlying core values (learning, equity, integrity, passion, respect, diversity, collaboration) pointed us in the direction of supporting students not only academically but emotionally (https://www.everettsd.org/Page/18901). The charge of implementing SEL in Everett Public Schools permeates the strategic plan, and the responsibility for this was distributed across the organization. It can be located explicitly in the following strategic goals and key performance outcomes:

- **Strategic Goal 1.1:** Each student graduates from high school ready for college, career, and life with 21st century skills.

- **Strategic Goal 3.4:** Our district implements systems and best practices to support and sustain school and district safety, security, and emergency preparedness.

    Key Performance Outcome 3.4.a: Our students and staff learn and work in an emotionally, physically, and intellectually safe and secure environment.

- **Strategic Goal 5.1:** Our district-wide strategic relationships contribute directly to achievement of district priorities and goals, and improvement of student learning.

    Key Performance Outcome 5.1.a: Strategic partnerships (family, corporate, and community) promote the health, well-being, and learning of all students.

In addition, the Strategic Plan drives the work outlined in the Annual Operating Plan (AOP) (https://www.everettsd.org/Page/20053). For example, the current AOP actions include:

1.1.a: Expand partnerships with community health providers to support students' social-emotional needs.

1.1.b: Explore intervention systems for struggling K students, including attendance and social-emotional skills.

1.3.c: Expand use of Panorama to gather formative social-emotional learning data.

1.5.a: Provide professional development for Achieve teachers to build capacity for instructional and social-emotional practices.

3.4.a: Continue to develop a comprehensive K-12 social-emotional framework within MTSS development.

3.4.a: Continue to integrate student and adult social-emotional wellness training in professional development.

3.4.a: Explore middle school social-emotional curriculum options.

3.4.a: Use data from Panorama survey to inform and modify existing SEL practices.

3.4.a: Develop full service school model with integration of social services embedded in school day as part of the emerging social-emotional learning framework design.

5.1.a: Create stronger partnerships with community health providers.

Following the redesign of the Strategic Plan, the district hosted a series of symposia addressing Post-Secondary Readiness, 21st Century Skills, and STEM Education. Each event brought social-emotional learning to the forefront of our work. Through the Post-Secondary Readiness Symposium, higher education partners identified critical inter- and intra-personal skills necessary for student success, including perseverance, growth mindset, self-management, and emotional regulation. This led to the second symposium in which we identified and defined the 21st Century skills critical for college and career, including critical thinking, communication, collaboration, creativity, and growth mindset. These skills were put to practice in the final symposium which focused on STEM education. Through this work, the foundational goal that "all students graduate college and career ready" was expanded to "all students will graduate college, career, and **life** ready." It was clear that the work we had begun more than a decade before was successful, having raised our graduation rate from 58% in 2004 to a 4-year graduation rate of 92.9% and a 5-year graduation rate of 95.2% in 2017 (Office of Superintendent of Public Instruction, 2018b). At the same time, it became increasingly obvious that our work toward this goal had to begin in kindergarten. In 2016-17, the On-Time Graduation meetings were expanded to all schools, from kindergarten through grade 12, with a new emphasis on systematically addressing SEL.

# New Framework Focused Commitment to Social-Emotional Learning

Students have experienced anxiety, depression, and social pressure throughout history. These appear to be increasing with the prevalence of social media, bullying, school violence, homelessness, and drug or alcohol abuse. Teachers are challenged to meet the increasingly complex needs of students while ensuring students learn to rigorous standards. A systematic and comprehensive approach to meeting the SEL needs of all students was clearly needed. Because of our belief that SEL is foundational to all student learning, SEL became a focus in the development of our Multi-Tiered Systems of Support (MTSS) framework.

MTSS framework development was led by a leadership team consisting of the Associate Superintendent of Teaching and Learning, Assistant Superintendents, Director of Special Education, Director of Student Support Services, Behavioral Specialist, Instructional Facilitators, and School Nurse Supervisor. The MTSS Leadership Team developed a theory of action to guide the development of a coordinated approach to addressing SEL in our district. This theory of action began with an acknowledgment that, in order to be college, career, and life ready, students must first have their basic needs met. Further, social-emotional health is essential to developing graduates able to effectively manage the demands of college, career, and daily life. Healthy living enables students to be in a position to access opportunities and pursue their post-secondary goals. SEL skills contribute to the acquisition of 21st century skills. We must teach these skills rather than assume students come to school with these innate abilities. Attending to SEL increases student engagement and access to learning.

The first task of the leadership team was to conduct an assessment of the current programs and activities occurring across the district. It became evident that a significant amount of work was being done in schools. However, it lacked a framework to align and coordinate actions. In addition, there were gaps in programs that indicated a need for all educators to take ownership of SEL. The inventory of current programs highlighted the commitment to building strong relationships in schools. For example, Everett counselors at the elementary level had been teaching the Second Step curriculum for more than 15 years. Through this curriculum, students learn skills in the areas of social awareness, self-management, responsible decision making, relationship skills, and self-awareness. Middle and high school counselors have been teaching the Signs of Suicide curriculum for the past three years. Counselors also teach the Harassment, Intimidation and Bullying curriculum. Prior to MTSS, Everett Public Schools also had Student Support Advocates, Drug and Alcohol Intervention Specialists, and Success Coordinators working with Kids in Transition (KIT) and Foster Students. While this work was focused and effective, it did not meet the needs of all students and signaled a need to include staff beyond counselors and support staff. It was clear that systematized interventions and instruction were needed within and across schools.

The MTSS Framework is comprised of three levels of increasingly targeted support for behavioral, achievement, and social-emotional needs. The first tier, Universal Support, benefits all students. It is focused on promoting resilience, positive behavior, and safety; and developing a supportive school environment where all students feel valued, connected, and respected. It includes core instruction that is preventative in nature and is intended for all students. The second tier, Targeted Support, includes supplemental instructional, behavioral, and social-emotional support intended to reduce risk for students who have an identified problem or need. For example, a student might be enrolled in a math support class or a student may be referred to a grief counseling group. The third tier, Intensive Support, provides specific and individualized support. For example, the school might coordinate with community agencies or clinicians to provide therapeutic support, or a student might work with a Success Coordinator to access KIT services. Figure 1 provides a graphic display of the MTSS Framework.

Figure 1: Everett Public Schools Multi-Tiered System of Supports Graphic
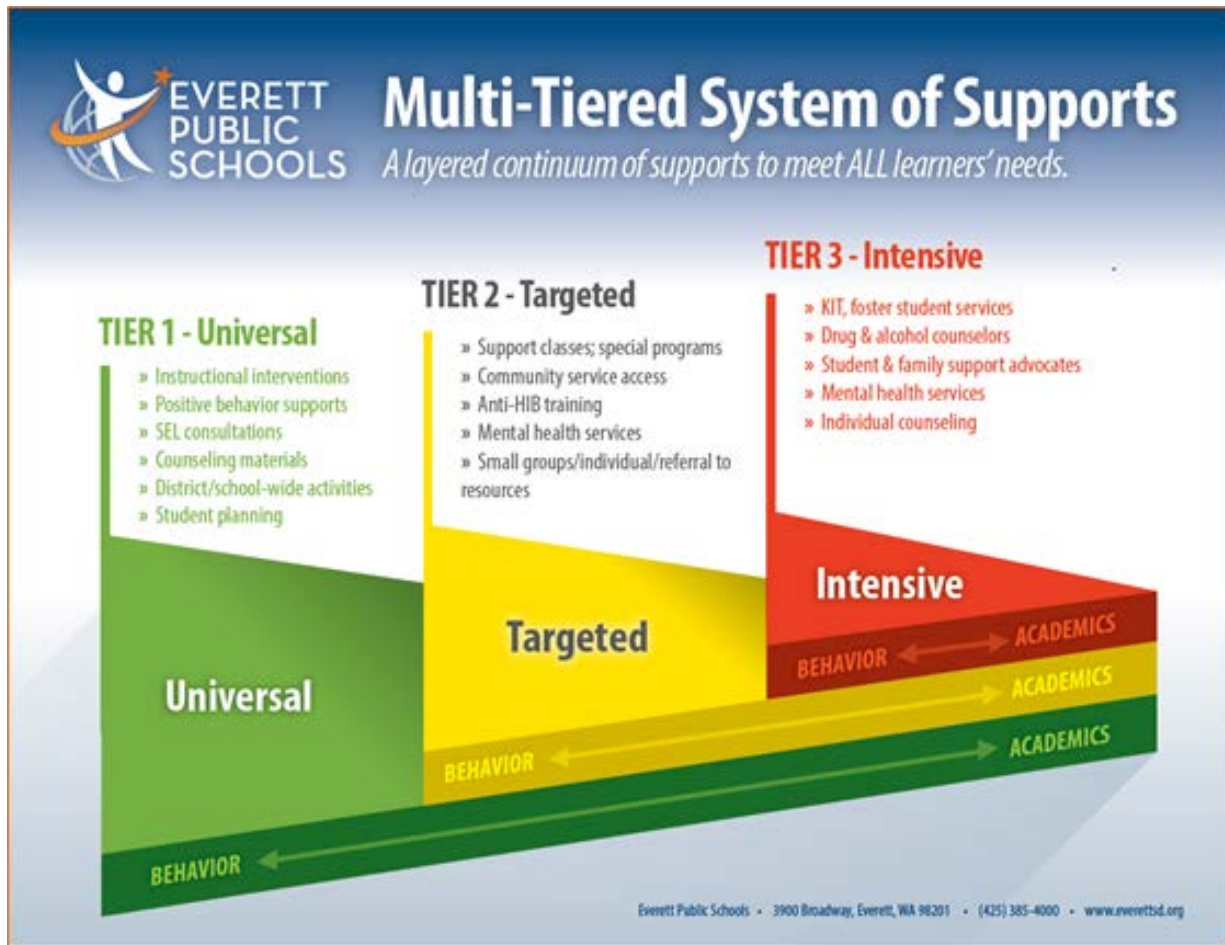
In order to reach all students, Everett recognized the need for all staff to play an integral part in implementing MTSS and attending to SEL. It was no longer a role only for counselors, specialists, and support staff. District administers and staff have received training in SEL, Adverse Childhood Experiences, Trauma Informed Practices, restorative justice, cultural competency, and poverty. These trainings have led to more intensive support programs in our schools.

External Supports for the Work

The district also reached out to external organizations for training and support. The Behavioral Health & Veterans Division of Snohomish County Human Services, in partnership with the Snohomish County Children's Wellness Coalition, offered an opportunity to Snohomish County public schools to participate in a two (2) year pilot program to install trauma-informed practices into K-12 schools. An increased understanding of the effects of trauma and adverse childhood experiences led some schools in our district to apply for and receive a grant for two years of consulting to implement Trauma-Informed practices. This grant aims to meet the need for ongoing and sustainable training and the implementation of evidence-based, trauma-informed practices in schools. The goals of implementing trauma-informed practices into school settings include decreased exclusionary discipline, decreased absenteeism, increased graduation rates, increased teaching time, and increased staff knowledge and skills to manage behaviors and create meaningful relationships with all students. Trauma-informed practice implementation is a universal intervention and best-practices apply to all students, not just those with known trauma.

Simultaneously, our district, in collaboration with Everett Education Association, conducted a year-long review of school-wide behavior programs to determine a common program and align practices. This included meeting with every school staff during their lunch breaks and surveying them on their current behavior programs. After the results were compiled, the decision was reached to adopt Positive Behavior Interventions and Supports (PBIS). PBIS is a school-wide framework within which schools organize their social, emotional and behavioral supports to meet the needs of each student. In the process of implementing PBIS, the Students' Rights and Responsibilities Handbook was revised to promote pro-social behavior, reduce out of school consequences, and communicate expectations in a positive manner. Every school in the district is now in the process of implementing PBIS with the support of coaches. Professional development to ensure effective implementation began with administrators in the spring of 2017. Initial staff training began this year and all school staffs will receive ongoing training and support over the course of the next two years.

As the work progressed, it was evident that we needed a way to measure our progress in meeting SEL needs in our schools. In 2017, several schools piloted the Panorama Education SEL Survey. This survey measures students' perceptions of SEL dimensions: growth mindset, grit, school safety, teacher-student relationships, self-management, sense of belonging, and social awareness. The data can be disaggregated to compare subgroups. The survey can be repeated to evaluate the effectiveness of interventions over time. In addition, Panorama Education provides a library of intervention resources, the Playbook, targeted to each dimension. Results from the survey are used by school teams to identify areas for improvement, celebrate successes, and generate deeper conversations about how to meet students' needs. The survey is aligned with Collaborative for Academic, Social, and Emotional Learning (CASEL) and with the Second Step Program. By the fall of 2018, all schools will begin using the survey and incorporating the data into their School Improvement Plans and State of the School Reviews. Two schools also piloted the Student Success Platform which integrates student demographic, performance, achievement, program and SEL survey data. This platform is a powerful tool for school administrators and counselors to understand the impact of SEL on individual performance and to develop plans addressing SEL. For example, counselors might look at students with declining attendance to see if they scored low in particular SEL factors. They can then develop a plan to improve SEL factors leading to greater attachment to school and improvement in performance.

Continuing Journey

While there is still much work to do in meeting the social-emotional learning needs of all students, SEL is becoming embedded in the curriculum and culture of the district. Just as important as the SEL competencies are the contexts for teaching them: the overall educational environment. SEL is not a single program or teaching method. SEL is not the domain of one type of staff or the need of one type of student. It involves coordinated strategies across classrooms, schools, homes, and communities. It is fundamental not only to healthy interactions between adults in schools and students but between to interactions between adults in schools. Attending to social-emotional learning benefits everyone.

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About the Authors

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ECEAP Outcomes in 2016-17

Washington State Department of Early Learning

The Early Childhood Education and Assistance Program (ECEAP) is Washington's pre-kindergarten program that prepares 3- and 4-year-old children from low-income families for success in school and in life. The Department of Early Learning (DEL), which oversees the program, sees ECEAP as a key strategy in achieving the goal of 90% of children ready for kindergarten by 2020. This article summarizes seven topics covered in DEL's annual Outcomes Report[1] for 2016-17.

Since 1985 ECEAP has focused on the well-being of the whole child by providing comprehensive education, health, and family support services to Washington's most at-risk young children. In their [longitudinal research,](#)[i] the Washington State Institute for Public Policy (WSIPP) found that ECEAP is effective in producing substantial gains in academic achievement in 3rd, 4th, and 5th grades. In 2016-17, ECEAP had 11,691 slots for children and provided services in 352 locations across Washington.

This summary of DEL's annual Outcomes Report describes some of the gains made by children and families as a result of their participation in ECEAP and is intended for ECEAP providers, early learning leaders, policymakers, and others to help inform decisions to strengthen and expand ECEAP. This summary covers seven topics:

- Kindergarten Readiness
- Child Development and Learning Outcomes
- Child Health Outcomes
- Family Engagement
- Child and Family Characteristics
- ECEAP Staff
- ECEAP Quality, Models, and Locations.

Kindergarten Readiness

DEL is working to ensure 90% of 5-year-olds are ready for kindergarten by 2020 - with race, ethnicity, and family income no longer predictors of readiness. ECEAP is a key strategy in addressing this goal.

Readiness at End-of-ECEAP

Figure 1 shows that at the end of one year of ECEAP, 55% of ECEAP 4-year-olds are ready for kindergarten in all six developmental domains measured by the *Teaching Strategies GOLD®* child assessment, the same assessment used at kindergarten entry. At the end of two years of ECEAP, 67% of 4-year-olds are ready, indicating that readiness is impacted by participation in ECEAP as well as expected maturation based on age. Figure 2 shows that readiness was highest in the physical domain and lowest in mathematics.

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[1] The full report can be found at https://del.wa.gov/sites/default/files/public/ECEAP/ECEAP_Outcomes_2016-17.pdf. The original format of the notes has been retained.

Figure 1: End-of-ECEAP Kindergarten Readiness by Number of Developmental Domains Ready, Spring 2017

Benchmark: *GOLD® Readiness for Kindergarten Entry for pre-k children*

6,507 ECEAP children age-eligible for kindergarten in fall 2017

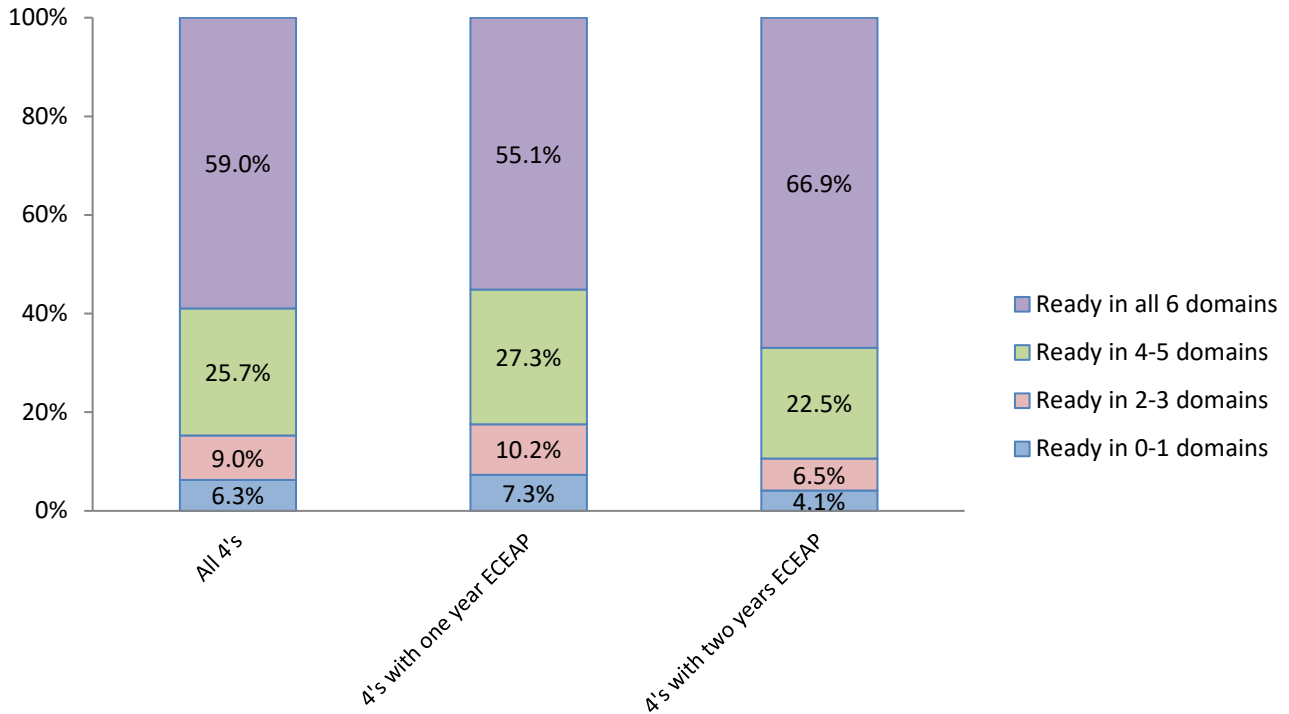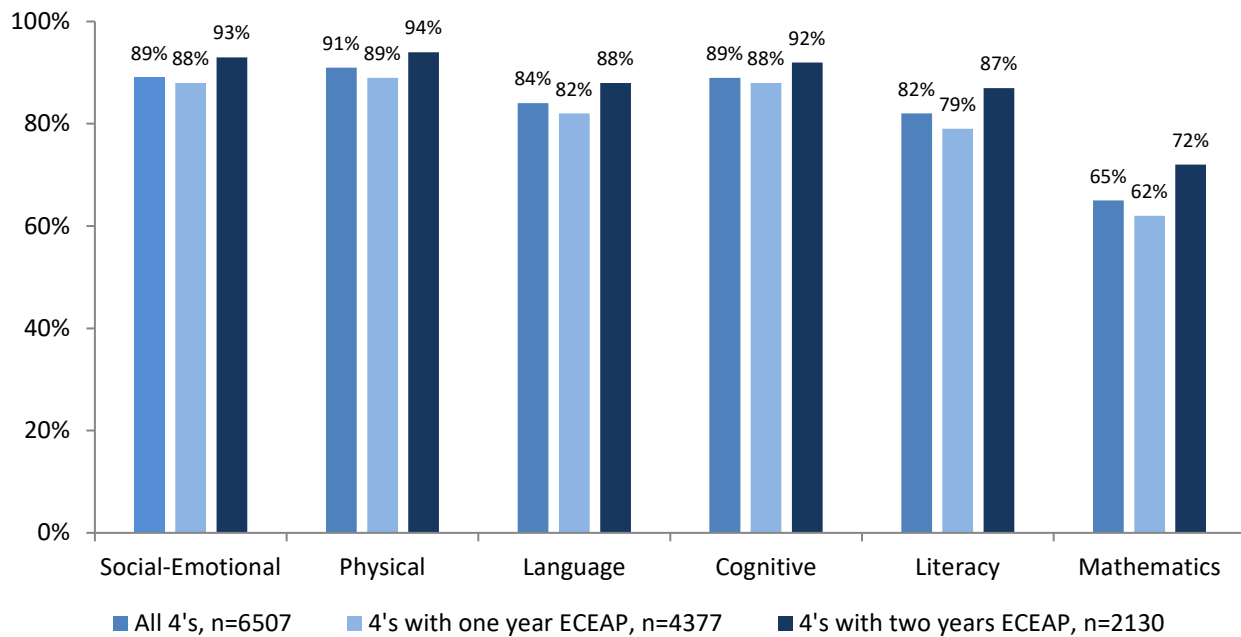4,377 with one year ECEAP; 2,130 with two years ECEAP

Figure 2: End-of-ECEAP Kindergarten Readiness by Developmental Domain, Spring 2017

Kindergarten readiness is measured using the Teaching Strategies GOLD® child assessment and applying the GOLD® Readiness for Kindergarten Entry for pre-k children benchmark. Teaching Strategies recently recalibrated the kindergarten readiness cut scores based on four years of nationwide data. Therefore, these 2016-17 data are not comparable with previous ECEAP Outcomes reports. Table 1 shows the higher scores that are now required in social-emotional, language, cognitive, and literacy development in order to be considered kindergarten ready. This change helps teachers have a better and more accurate understanding of the skills, knowledge, and behaviors needed to be successful in kindergarten.

Table 1: Old and New Kindergarten Readiness Cut Scores

Developmental Domain	2015-16 GOLD® Raw Score	2015-16 GOLD® Scale Score	2016-17 GOLD® Raw Score	2016-17 GOLD® Scale Score
Social-Emotional	47	595	48	601
Physical	30	592	30	592
Language	44	588	46	606
Cognition	48	603	49	609
Literacy	39	591	42	603
Math	35	641	35	641

Children with two years of ECEAP are significantly more like to be ready for kindergarten when they leave ECEAP than those with just one year of ECEAP (66.9% vs. 54.1% are ready in all six domains). Children were counted in the one-year group if they had ratings in fall and spring of 2016-17, but not in both fall and spring of 2015-16. Therefore, a child who attended 1.75 years is still counted in the one-year group.

When children begin ECEAP, their GOLD® ratings are most likely to be lowest in literacy and math. At the end of ECEAP, they are least likely to be ready for kindergarten in these two domains. However, literacy and math are also where children make the greatest gains during ECEAP. As part of the strategy to address this, DEL is investing intensively in an early learning numeracy initiative.

Readiness at Beginning of Kindergarten

At the beginning of kindergarten, most children are assessed using the Washington Kindergarten Inventory of Developing Skills (WaKIDS). As part of WaKIDS, kindergarten teachers assess children's development and learning using a subset of the objective forms from Teaching Strategies GOLD®, the tool used in ECEAP.

WaKIDS results show that ECEAP children are more likely to be ready for kindergarten than children from low-income households in general. Table 2 displays the most recent data available connecting ECEAP children with their WaKIDS ratings. It is about children who started kindergarten in fall 2015, a cohort two years earlier than ECEAP children described elsewhere in this report.

Table 2: Beginning-of-Kindergarten Readiness, Fall 2015

Developmental Domain	WaKIDS (at kindergarten entry)		
	Fall 2015 ECEAP children only ≤ 110% FPL N=4,441	**Fall 2015 Low Income only ≤ 185% FPL** N=23,793	**Fall 2015 All WaKIDS** N=41,755
Social-Emotional	71.8%	68.1%	73.2%
Physical	77.5%	73.4%	77.3%
Language	75.8%	72.3%	78.9%
Cognitive	71.5%	67.4%	74.6%
Literacy	77.7%	73.2%	80.9%
Mathematics	53.6%	49.4%	60.8%
Ready in 6 of 6 domains	**36.9%**	**33.7%**	**44.2%**
Ready in 5 of 6 domains	**58.0%**	**50.7%**	**63.2%**

Readiness is measured using the WaKIDS version of the Teaching Strategies GOLD® child assessment and applying the GOLD® Readiness for Kindergarten Entry for kindergartners' benchmark. Both the Fall 2015 Low Income only category and the Fall 2015 All WaKIDS category include ECEAP and Head Start children.

Across the state, only 47% of children in kindergarten in fall 2016 were ready in all six developmental domains measured by WaKIDS.

- For children in families at or below 185% of federal poverty level, or $37,296 annually for a family of three, only 33% of kindergartners were ready. This category includes the kindergarteners who were in ECEAP and Head Start as well as others who may or may not have been in other early learning programs.

- ECEAP is a key strategy in supporting the most at risk of these low-income families, those at or below 110% of federal poverty level or $22,176 annually for a family of three.

Higher percentages of ECEAP children are ready for kindergarten than other low-income kindergarteners, even though ECEAP represents more intensive poverty.

Summer Drop Off

When children arrive in kindergarten, fewer meet the *GOLD*® kindergarten readiness benchmark in each domain than did at the end of ECEAP (Table 3). DEL wants to address the causes of "summer drop-off" as part of the state's goal to ensure that 90% of all kindergarteners are ready in all six domains by fall of 2020. DEL and OSPI are now working together to explore assessment differences across ECEAP and kindergarten, especially for dual language learners and children receiving special education, because summer drop off appears larger for those groups.

Table 3: Summer Drop Off in Kindergarten Readiness
4,441 ECEAP children entering kindergarten in fall 2015

Developmental Domain	Spring 2015 ECEAP GOLD® (Percent of children ready)	Fall 2015 Kindergarten WaKIDS (Percent of children ready)
Social-Emotional	92.0%	71.8%
Physical	93.1%	77.5%
Language	88.3%	75.8%
Cognitive	91.9%	71.5%
Literacy	87.1%	77.7%
Mathematics	64.0%	53.6%
Ready in 6 of 6 domains	**59.4%**	**36.9%**
Ready in 5 of 6 domains	**80.5%**	**58.0%**

Readiness was measured using Teaching Strategies GOLD® child assessment (the WaKIDS version in kindergarten) and applying the 2015 GOLD® Readiness for Kindergarten Entry benchmarks which have since been revised. Spring 2015 ECEAP uses the readiness benchmark for Pre-K children. Fall 2015 WaKIDS uses the readiness benchmark for kindergartners.

The table shows that in spring of their ECEAP year, 59% of children are ready for kindergarten in all six of the GOLD® developmental domains, and 37% of those same children are rated as ready in all six domains at kindergarten entry, representing a "summer drop-off." DEL's analysis indicates that this drop-off is likely due to a variety of factors:

- learning fadeout during the months children are not in a program, also known as "summer learning loss;"
- assessment differences between ECEAP and kindergarten children, especially for English language learners and special education students; and
- whether a school district is in its first year of administering the WaKIDS assessment.

Children with two years of ECEAP are more likely to be ready for kindergarten when they arrive in the fall than those with just one year, but this difference is not statistically significant. This lack of finding is due to high summer drop off.

DEL estimates that addressing summer learning drop-off, the math shortfall, and expanding ECEAP to reach all eligible children could raise the share of all entering kindergarteners ready on all six domains at kindergarten entry from 44% in 2015 to 63% of all kindergarteners. DEL estimates that these interventions could raise kindergarten readiness among children from the lowest income households (at or below 110% of the federal poverty level, the target population for ECEAP) to 73%.

Child Development and Learning Outcomes

All ECEAP children are assessed three times during the school year to track their social-emotional, physical, language, and cognitive development and their early literacy and math skills. English language acquisition is tracked for children who speak a different language at home. This report section includes data for a larger group of children than the kindergarten readiness section. The data below represent both 3-year-old and 4-year-old ECEAP participants.

GOLD® is a valid, reliable seamless assessment system for children from birth through the third grade. It meets the assessment standards of the National Association for the Education of Young Children (NAEYC) and the National

Association of State Early Childhood Specialists in State Departments of Education. Teachers observe children in the context of everyday activities and natural settings over time, record their observations, and use them to rate 36 objectives for each child, plus two more for children learning the English language. Teachers use the data to plan curricula and individualize instructional supports and child guidance. DEL uses the data to determine areas of focus and statewide training, such as DEL's recent investment in numeracy training for teachers.

Summary of Development and Learning Gains

For 2016-17, DEL collected GOLD® assessment results for 9,351 ECEAP children (ages 3 and 4) who had ratings in both fall and spring of the school year. As a group, they made extensive gains during the ECEAP year. Children with two years of ECEAP began and ended their second year of ECEAP functioning at significantly higher levels than those without a previous year, even controlling for a variety of characteristics such as poverty level, race and ethnicity, home language, and special education participation.

Children made progress in all areas of development. The following percentages of ECEAP children moved from "below age level" to "at or above age level" during the 2016-17 ECEAP school year.

- Social-emotional development – 37%
- Physical development – 30%
- Language development – 33%
- Cognitive development – 37%
- Literacy development - 42%
- Mathematics - 50%

The figures on the following pages include these child counts:
- 9,351 ECEAP children with fall and spring *GOLD®* results.
- 6,507 four-year-olds: 4,377 with one year ECEAP but less than two full years and 2,130 with two full years of ECEAP.

The following *GOLD®* benchmarks were used in the charts below:
- For measures labeled "All 3's and 4's at or above expectations for age", *GOLD® Widely Held Expectations*.
- For measures labeled "Ready for kindergarten", *GOLD® Readiness – for Pre-K children.*

For more information, see *Research Foundation: Teaching Strategies GOLD^R Assessment System.[ii]*

There is a strong connection between children's early relationships and behaviors and their future development and learning. For this reason, assessing children's social-emotional development accurately and supporting their growth and competence in this area is especially important. Teaching Strategies *GOLD®* includes three social–emotional objectives:

- Regulates own emotions and behaviors
  - Manages feelings
  - Follows limits and expectations
  - Takes care of own needs appropriately
- Establishes and sustains positive relationships
  - Forms relationships with adults
  - Responds to emotional cues
  - Interacts with peers
  - Makes friends
- Participates cooperatively and constructively in group situations
  - Balances needs and rights of self and others
  - Solves social problem

Figure 3: Social-Emotional Development
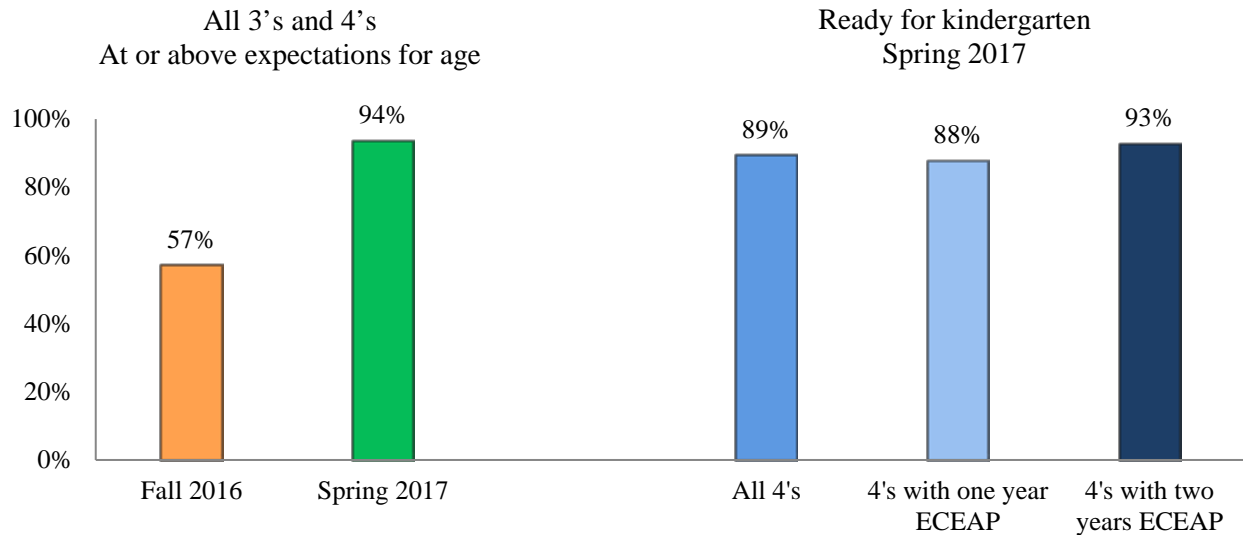
Physical Development

Physical development includes children's gross-motor (large muscle) and fine-motor (small muscle) skills. Physical development affects other areas of development. In fact, brain research points to the connection between early, positive movement experiences and brain development. Physical development is also linked to children's emotional development and school performance. The physical development objectives are:

- Demonstrates traveling skills

- Demonstrates balancing skills

- Demonstrates gross-motor manipulative skills

- Demonstrates fine-motor strength and coordination
    - Uses fingers and hands
    - Uses writing and drawing tool

Figure 4: Physical Development
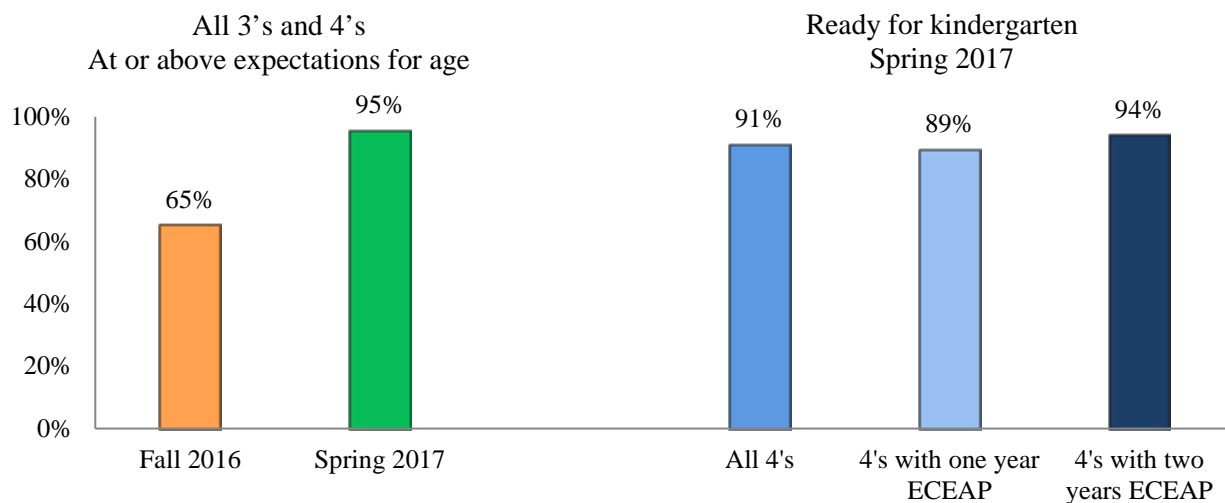
Strong language skills are essential for children's success in school and life. Oral language—including grammar, the ability to define words, and listening comprehension—helps provide the foundation and is an ongoing support for literacy. The language objectives are:

- Listens to and understands increasingly complex language
    – Comprehends language
    – Follows directions

- Uses language to express thoughts and needs
    – Uses an expanding expressive vocabulary
    – Speaks clearly
    – Uses conventional grammar
    – Tells about another time or place

- Uses appropriate conversational and other communication skills
    – Engages in conversations
    – Uses social rules of language

Figure 5: Language Development

All 3's and 4's
At or above expectations for age

Ready for kindergarten
Spring 2017

Fall 2016: 58%
Spring 2017: 91%
All 4's: 84%
4's with one year ECEAP: 82%
4's with two years ECEAP: 88%
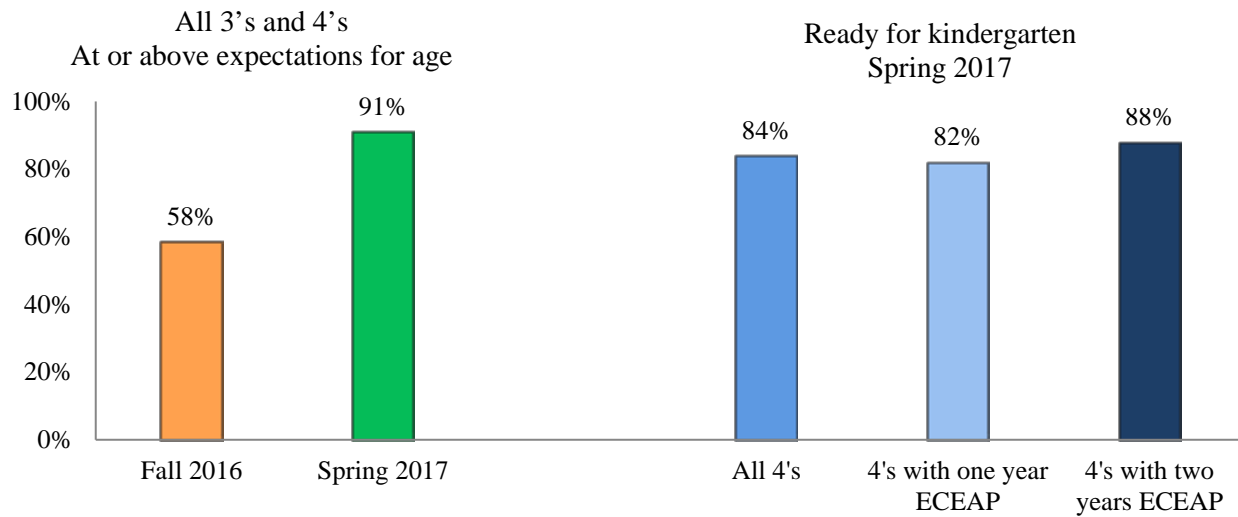
Cognitive development, also called intellectual development, is influenced by various factors including biological makeup, the environment, and how the child approaches learning tasks (e.g., attention, persistence, curiosity, and flexibility). A child's background knowledge, or knowledge base, affects the way the child thinks. This background knowledge influences the child's information processing, memory, classification, problem solving, language acquisition, and reading and mathematics learning. The cognitive development objectives are:

- Demonstrates positive approaches to learning
  - Attends and engages
  - Persists
  - Solves problems
  - Shows curiosity and motivation
  - Shows flexibility and inventiveness in thinking
- Remembers and connects experiences
  - Recognizes and recalls
  - Makes connections
- Uses classification skills
- Uses symbols and images to represent something not present
  - Thinks symbolically
 - Engages in sociodramatic play

Figure 6: Cognitive Development

The WERA Educational Journal, May 2018
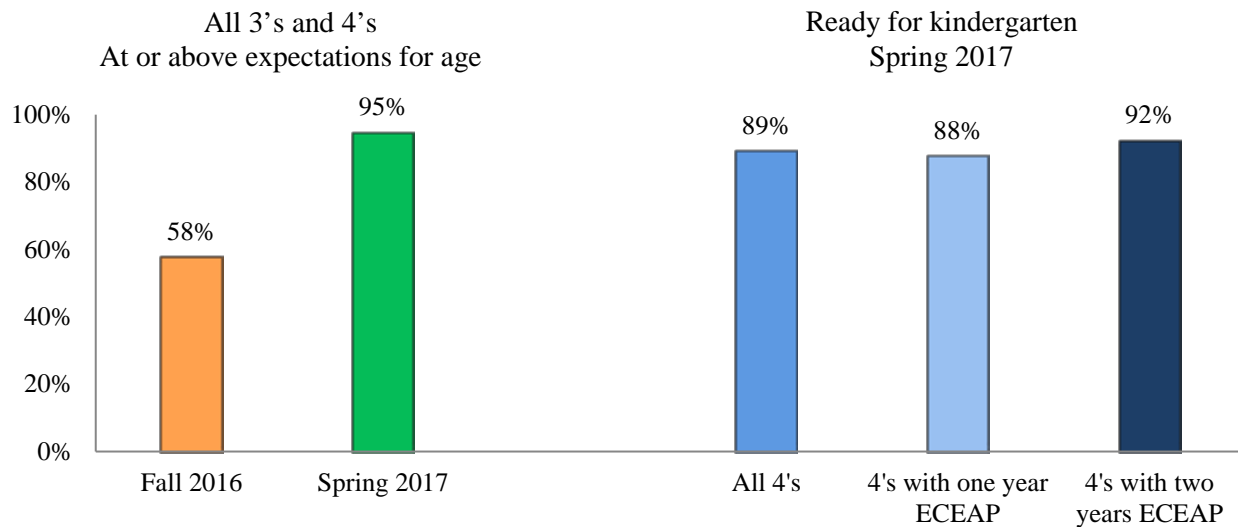
The early years are critical for literacy development. The level to which a child progresses in reading and writing is one of the best predictors of whether the child will function competently in school and in life. Effective instruction in the early years can have a large impact on children's literacy development. *GOLD®* has these literacy objectives:

- Demonstrates phonological awareness
  - Notices and discriminates rhyme
  - Notices and discriminates alliteration
  - Notices and discriminates smaller and smaller units of sound
- Demonstrates knowledge of the alphabet
  - Identifies and names letters
  - Uses letter–sound knowledge
- Demonstrates knowledge of print and its uses
  - Uses and appreciates books
  - Uses print concepts
- Comprehends and responds to books and other texts
  - Interacts during read-alouds and book conversations
  - Uses emergent reading skills
  - Retells stories
- Demonstrates emergent writing skills
  - Writes name
  - Writes to convey meaning

Figure 7: Literacy Development

All 3's and 4's
At or above expectations for age

Ready for kindergarten
Spring 2017
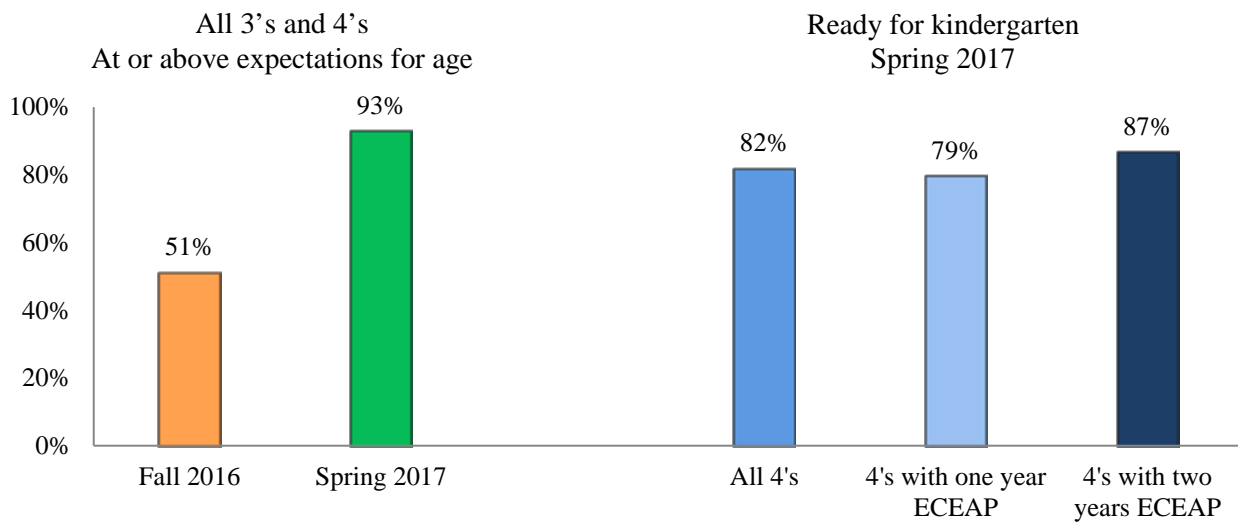
Mathematics

While children start ECEAP at a lower developmental level in math than any other domain, they make the greatest gains in math, as compared to other domains, during their time in ECEAP. Research links early math skills with later school reading and math achievement. Mathematical knowledge at kindergarten entry is predictive of future mathematics success throughout the years in school. Evidence shows that high-quality early childhood education programs can make a difference in children's mathematical learning. These mathematics objectives are:

- Uses number concepts and operations
  - Counts
  - Quantifies
  - Connects numerals with their quantities
- Explores and describes spatial relationships and shapes
  - Understands spatial relationships
  - Understands shapes
- Compares and measures
- Demonstrates knowledge of patterns

Figure 8: Mathematics

All 3's and 4's
At or above expectations for age

Ready for kindergarten
Spring 2017

Fall 2016: 34%
Spring 2017: 84%

All 4's: 65%
4's with one year ECEAP: 62%
4's with two years ECEAP: 72%
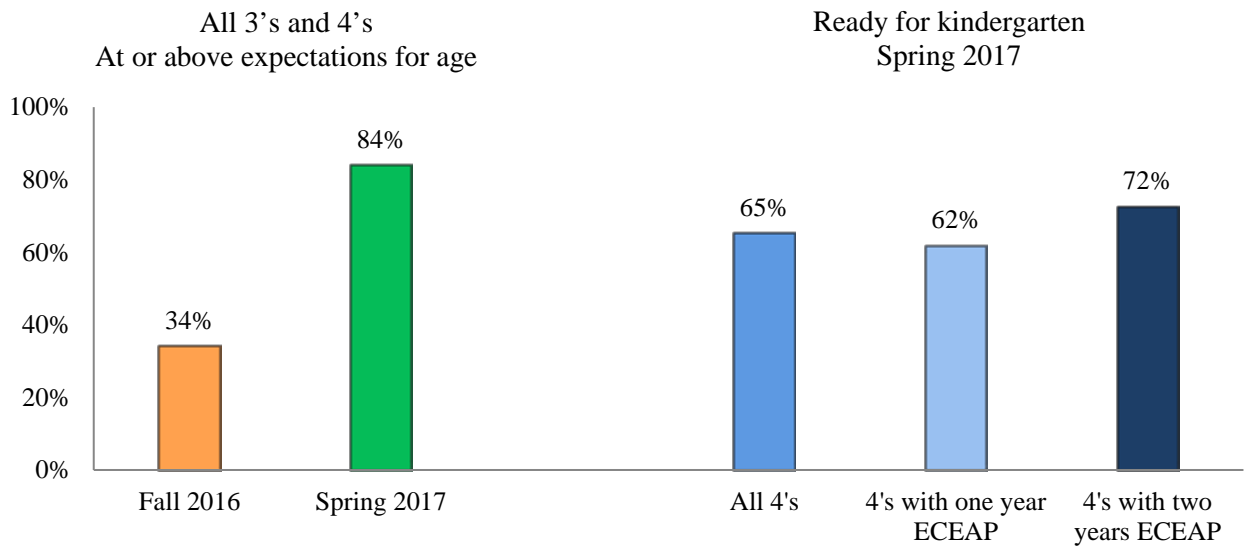
Child Health Outcomes

Table 4 shows outcomes at the beginning of enrollment in ECEAP and upon exit for the 11,451 children who were in ECEAP during 2016-17 for 120 days or longer. Description of the outcomes are given below the table.

Table 4: Health Outcomes At Enrollment and At Exit

	At enrollment	At exit
No medical home	8%	1%
No medical coverage	4%	0%
Behind on immunizations	29%	4%
Behind on well-child exams	39%	6%
No dental home	16%	2%
No dental coverage	6%	0%
Behind on dental care	55%	4%

Medical home: A medical home is a trusting partnership between a family and a health care provider where the child receives ongoing, coordinated sick and preventive care. A medical home increases timely and appropriate use of pediatric services and reduces use of the emergency room for routine care. ECEAP staff work with families to establish a medical home for children who do not have one.

Medical coverage: Children with public or private health insurance are more likely than children without insurance to have a regular and accessible source of health care. ECEAP staff work with families to ensure all ECEAP children have medical coverage.

Immunizations: Many serious childhood diseases can be prevented by using vaccines routinely recommended for children. Immunizations keep individual children and communities healthy, stopping the spread of disease to the most vulnerable populations.

Well-child exams: ECEAP staff assisted families in completing annual well-child visits where children receive a physical exam and developmental screening. Parents can share concerns about their child's health or development. As a result of the well-child exam while in ECEAP, 116 children received needed medical treatment. ECEAP staff work with teachers and medical staff to create individualized health plans for the school setting for 703 children.

Dental home: A dental home is a provider or clinic where the child receives ongoing, coordinated preventive care and treatment. ECEAP staff work with families to establish a dental home for children who did not have one.

Dental coverage: ECEAP staff work with families to ensure all ECEAP children have dental coverage.

Dental screening: Regular dental visits provide an opportunity for prevention, early diagnosis, and treatment of oral and craniofacial diseases and conditions. Dental screening is recommended every six months for children of ECEAP age. Dental cavities are the single most common disease of childhood. As a result of the ECEAP dental screening, 711 children received needed treatment.

Vision and hearing screening: ECEAP children receive vision and hearing screenings during their first 90 days each year. Staff refer families for further evaluation and treatment as indicated by the screening. As a result of the screening, 321 children received vision care and 53 children received hearing care.

Mental health: ECEAP staff ensure consultation by a mental health professional for parents or staff members regarding children's behavior or mental health, as needed based on behaviors exhibited in the classroom. There were mental health consultations on behalf of 636 children during the year.

Family Engagement

Family engagement is an essential component of ECEAP comprehensive services. It includes individualized family support services, working with families to increase their economic security as well as providing referrals and community resources, opportunities to volunteer in the classroom, parent education, and parent leadership development activities. In 2016-17, ECEAP completed the second year for two initiatives, *Families Moving Forward* and *Mobility Mentoring.*

Families Moving Forward

DEL developed the Families Moving Forward curriculum to build the executive function skills of self-regulation, mental flexibility, and working memory for both children and parents. Executive function skills are very strong predictors of school success, even stronger than IQ. During 2016-17, DEL-trained facilitators led this six-week culturally-relevant series for ECEAP parents across the state.

This curriculum addresses an important need in ECEAP. Children living with poverty, abuse or neglect, severe maternal depression, or other unmitigated stressors are at developmental risk. According to The Center on the Developing Child at Harvard University, this toxic stress[iii] "can weaken the architecture of the developing brain, with long-term consequences for learning, behavior, and both physical and mental health." This directly applies to the 3- and 4-year-olds in ECEAP of whom:

- 79% are in families at or below the federal poverty level ($20,160 annually for a family of three).
- 16% have a parent with mental health issues.
- 12.3% are in families with a history of domestic violence.
- 11% are in families that are or have been involved with child protective services.
- 11% are homeless at time of enrollment and another 5% were during the past 12 months.
- 9% are in families with substance abuse issues.
- 5% have an incarcerated parent.

Caring adults can buffer stress and support development of executive functioning skills. This is the goal of the Families Moving Forward curriculum.

> "One thing that's absolutely clear is that not all children growing up in poverty are experiencing toxic stress. Toxic stress has to do with the extent to which adults in a child's life are buffering that child from the stresses around the family, and building the child's ability to cope and adapt, which is building resilience." (Shonkoff, 2015[iv])

Parents completed an evaluation at the end of their Families Moving Forward sessions. In 2016-17, 44% of responses emphasized the value of learning to reduce and manage stress, to increase mindfulness, and to understand that their stress level impacts their child's development. Here are three examples of parent responses when asked "What part of the Families Moving Forward program had the most impact on your parenting?"

- "I learned how stress affects my child."
- "Dealing with my own stress."
- "Understanding stress and how it relates to how I relate to my own child and how reducing mine and their stress relates to development."

Mobility Mentoring

Family support services have been an integral part of ECEAP since its inception. These services assist the very low-income families enrolled in ECEAP to better support their early learners. DEL has pursued incorporating family support best practices and recently completed a second year implementing the [Mobility Mentoring](#)®ᵛ pilot project. This individualized approach, scheduled to go statewide in 2018-19, strengthens family outcomes and provides intensive services to the families who need them the most. In 2016-17, a total of 2,585 families participated and received both a pre- and post-assessment. These families set 3,203 family goals (averaging 1.3 per family) and met 1,583 of these family goals during the school year. The greatest numbers of goals were set in education attainment (696), savings (370), housing (319), earnings level (315), and physical and mental health (309).

ECEAP staff work with families to access family stability, well-being, financial management, education and training, and employment and career management at the beginning and end of the school year. Table 5 shows the average pre- and post-assessment levels on a 1 to 5 scale, a description of the level nearest to the post-assessment average, and the average change in levels.

Table 5: Changes in Family Outcomes after Mobility Mentoring® Participation

	Average pre-assessment level (1-5)	Average post-assessment level (1-5)	Average post-assessment description of nearest level	Average change
Access to Transportation	4.6	4.8	Have consistent, reliable transportation all the time.	0.2
Legal Issues	4.6	4.7	Have resolved legal issues or have no legal issues.	0.1
Managing Parenting Stress	4.3	4.5	Parents are able to keep calm and in control some to most of the time.	0.2
Household Needs	4.2	4.5	Need for food, toiletries, furniture, and clothing mostly or fully met.	0.3
Physical & Mental Health	4.2	4.4	Health and mental health needs are nearly met; mostly able to engage in work, school, and family life.	0.3
Conflict Resolution	4.1	4.3	Family conflicts happen sometimes but are resolved easily.	0.2
Family & Dependents	4.1	4.4	Family needs are nearly met; mostly able to engage in work, school, and family life.	0.3
Developing Parenting Skills	3.9	4.3	Have information and understanding of parenting and apply skills sometimes.	0.4
Personal & Professional Networks	3.9	4.2	Can often rely on networks to provide useful advice, guidance, and support.	0.3
Housing	3.8	3.9	No housing subsidy, housing costs exceed 1/3 household gross pay.	0.1
Community Resources Knowledge	3.8	4.3	Some community resources knowledge, and able to access them most times.	0.5
Healthy Lifestyle	3.6	4	Confident in knowledge of a healthy lifestyle and trying to do regular physical activity and eat nutritious foods	0.4
School Involvement & Advocacy	3.4	4	Involved in school and learning how to advocate for child.	0.5
Debts	3.4	3.6	Current in all debts and paying more than minimum balances on one or more debts.	0.3
Earnings Level	2.5	2.7	Job with earnings of 33-65% of WA living wage.	0.2
Education Attainment	2.3	2.3	GED, high school, or High School 21+ complete.	0.0
Savings	1.8	2.2	Savings of less than one month's expenses.	0.4

Table 5 shows that the greatest gains were made in areas traditionally supported by ECEAP – developing parenting skills, school involvement and advocacy, healthy lifestyle, community resources knowledge – as well as in family savings. At both the beginning and end of the year, the lowest ratings were in family savings, education attainment, and earnings levels. Gains were made in average savings and earnings levels during the year but not education attainment (the only outcome that, on average, showed no gains). Although education attainment was the most frequently set goal, parents may have started classes toward a degree, for example, but not completed their full goal. This outcome may require multi-year follow up to determine if gains are made.

At the end of the ECEAP year, families at sites using Mobility Mentoring were significantly more likely than other ECEAP families to respond positively to these ECEAP evaluation questions. Here is a sample of their comments.

- "My family developed goals for important issues in our lives."

- "I set financial goals with ECEAP family support staff this year."

- "I plan to keep working on my financial goals."

- "After ECEAP's support this year, it is easier for me to slow down and think my problems through to a solution."

- "I have people I can talk to and know where to go for help if needed."

Children enrolled in sites using Mobility Mentoring had greater gains in language and literacy development than children in other ECEAP sites, even when controlled for poverty level, race and ethnicity, age, primary home language, years in ECEAP, length of class day, single parent, parent education attainment, or starting *GOLD*® score.

Child and Family Characteristics

A total of 13,441 children were enrolled in ECEAP at some point in 2016-17. ECEAP eligibility prioritizes children for enrollment in the funded slots based on family income and risk factors that are linked by research to school performance. Hence, many children had one or more at risk factors. For example:

- Single Parent - 42% lived in single parent homes.

- Parental Mental Health - 16% have a parent experiencing mental health issues.

- Domestic Violence - 12% were in families impacted by domestic violence.

- Child Abuse and Neglect - 11% were in families currently or previously receiving Child Protective Services, Family Response Services, or Indian Child Welfare.

- Health - 10% had a chronic health condition.

- Substance Abuse - 9% were in families impacted by substance abuse.

- Disabled Parent - 7% had a parent who is developmentally or physically disabled.

- Low birth weight - 6% had low birth weight.

- Incarcerated parent - 5% had a parent who was incarcerated.

- Teen parents - 4% were born to teen parents.

- Parent in combat - 1% have a parent currently or recently deployed to a combat zone.

- Expelled from other early learning - 1% (120 ECEAP children) were previously expelled from an early learning program for behavioral reasons.

Table 6 provides general information about the children served in ECEAP during the year.

Table 6: Child and Family Characteristics

	ECEAP Children	All ECEAP-Eligible Children	All Washington Children (ages 0-5)
Federal poverty level*			
≤ 50% FPL	38%		8%
50.1-100% FPL	42%		11%
100%-110%	10%		
> 110% FPL and on IEP	3%		
> 110% FPL with other risk factors	7%		
Race and ethnicity			
American Indian/Alaska Native, not Hispanic	4%	2%	1%
Asian, not Hispanic (includes Pacific Is)	4%	4%	1%
Black/African American, not Hispanic	12%	6%	4%
Hawaiian/Pacific Islander, not Hispanic	2%		1%
Hispanic/Latino	35%	41%	24%
Other or Two or more races, not Hispanic	6%	9%	10%
White, not Hispanic	37%	38%	52%
Home language			
English	66%		
Spanish	25%		
Other**	9%		
Special Education			
Referred for evaluation by ECEAP	4%		
On ECEAP anytime during this school year	10%		
Age on August 31			
5-year olds (summer before kindergarten only)	2%		
4-year olds	64%		
3-year olds	35%		
Homeless			
At time of ECEAP enrollment	11%		
Within 12 months prior to ECEAP	5%		
Parent's Education Level			
Has a parent who completed 6th grade of less	10%		
Has a parent without high school diploma/GED	36%		
Guardianship			
Foster care	3%		
Kinship or non-relative care	4%		

Sources: DEL's Early Learning Management System (ELMS); Washington State Budget and Policy Center, and Kids Count. Family characteristics other than income are self-reported by parents.

* Families at or below 110% FPL, or $26,675 for a family of four, were eligible for ECEAP based on income alone. As allowed by state law, up to 10% of enrolled children may be from families above this income amount and may be admitted based on specific risk factors. While 73% of ECEAP children had an employed parent, averaging near full time, low parent education levels likely impacted earning power.

** Includes seven languages with ≤ 1.5% (Somali, Arabic, Russian, Amharic, Vietnamese, Punjabi, Chinese).

ECEAP Staff

For the ECEAP lead and assistant teachers who were active in 2016-17 and for whom we have data in MERIT, we have compared their race, ethnicity, gender, and primary language to that of the ECEAP children in Table 7. The education level of the lead teachers and assistant teachers are shown in Table 8.

Table 7: Comparison of ECEAP Lead and Assistant Teachers and ECEAP Children

Race, n=865	# of Teaching Staff	% of Teaching Staff	ECEAP Children
American Indian/Alaska Native, not Hispanic	22	3%	4%
Asian, not Hispanic	38	4%	4%
Black/African American, not Hispanic	36	4%	12%
Hawaiian/Pacific Islander, not Hispanic	9	1%	2%
Hispanic/Latino	187	22%	35%
Other or Two or more races, not Hispanic	17	2%	6%
White, not Hispanic	556	64%	37%
Gender, n=956			
Female	915	96%	49%
Male	41	4%	51%
Primary Language, n=951			
English	819	86%	66%
Spanish	95	10%	25%
Other	37	4%	9%

Source: DEL MERIT system

Table 8: Teaching Staff Education Levels, 2016-17 Teaching Staff Education Levels

Lead Teachers, n=627	Percent
Master's degree or higher	12%
Bachelor's degree	34%
Associate degree	36%
Other or unknown	18%
Assistant Teachers, n=576	
Master's degree or higher	2%
Bachelor's degree	16%
Associate degree	30%
Some college	10%
Child Development Associate (CDA) credential	8%
Other or unknown	34%

The accuracy of our ECEAP child assessment data depends on teachers' ability to observe and evaluate children's behavior. Teaching Strategies has taken steps to check and enhance the accuracy of teachers' assessment ratings through a process that leads to inter-rater reliability certification. The percentage of ECEAP Lead Teachers with GOLD® Inter-rater Reliability Certification increased from 86% in spring 2016 to 93% in spring 2017.

ECEAP Quality, Models, and Locations

Quality

Early Achievers[vi] is Washington's quality rating and improvement system for early learning programs designed to:

- Connect families to early learning and care programs with the help of an easy-to-understand rating system, and

- Offer coaching, professional development, and resources for providers to support each child's learning and development.

The 2015 Early Start Act requires that all ECEAP sites participate in Early Achievers and attain a Level 4 or 5 rating within 18 months for sites with child care licenses and 12 months for others. As of July 2017, 76% of ECEAP sites had reached Level 4 or 5. Figure 9 provides data on the Early Achiever ratings last summer. See the Early Achievers Data Dashboard[vii] for a current summary.

Figure 9: Early Achievers Ratings for ECEAP Sites as of July 2017 (N = 352)
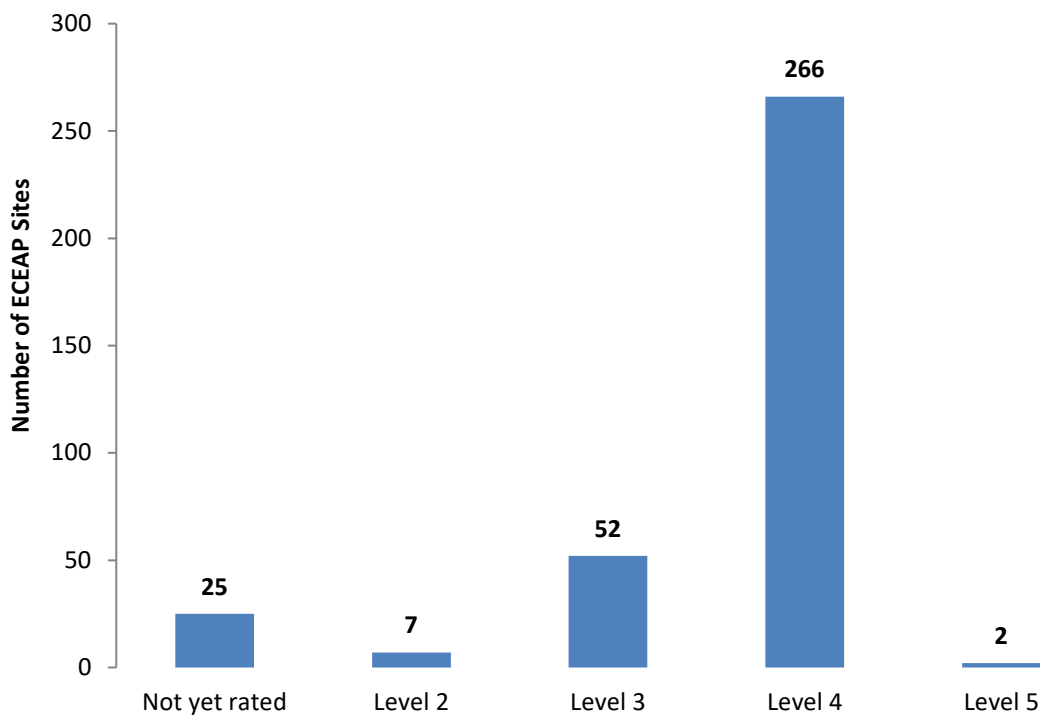
ECEAP has three models of delivery: part-time, full school day, and extended day. Information on each model is provided below and in Figure 10.

Part Day ECEAP is:

- For slots funded prior to July 1, 2015, a minimum 2.5 hours per class session, 320 hours per year, and 30 weeks per year.
- For slots funded July 1, 2015 or later, a minimum of 3 hours per class session, 360 hours per year, and 30 weeks per year.
- Contracted at $7,331 per slot for children.
- Exempt from child care licensing if operating less than 4 hours per day.

Full School Day ECEAP is:

- An average of 6 hours per class session (5.5-6.5), a minimum of 1,000 hours per year and at least four days per week.
- Contracted at an average of $9,960 per child, with regional variations.

Extended Day ECEAP is:

- Open at least 10 hours per day, 5 days per week, year-round.
- Contracted at an average of $15,391 per child, with regional variations.
- Fully licensed for child care by DEL.

Figure 10: Slots for Children in Each ECEAP Model in 2016-17
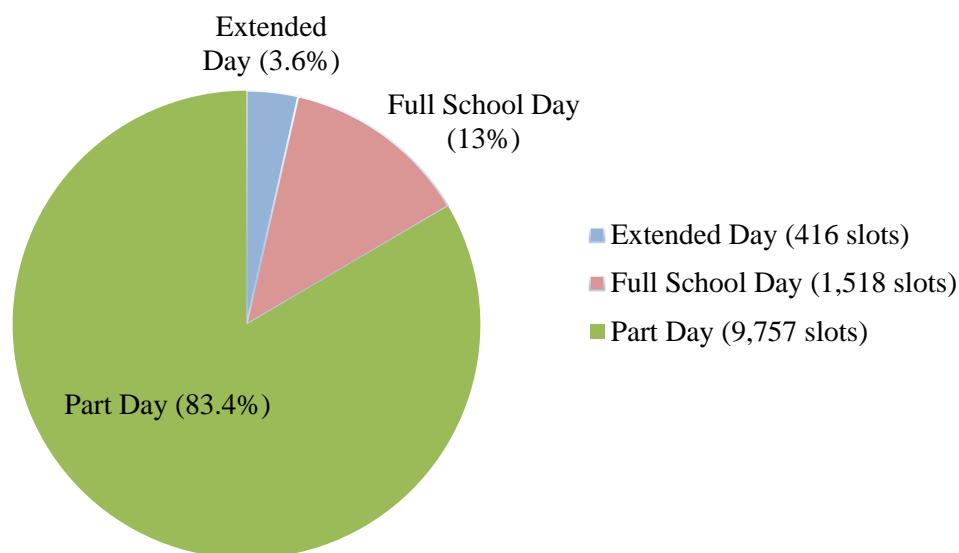
Locations

ECEAP was in 352 locations across the state in 2016-17 in a variety of settings, as shown in Figures 11 and 12.

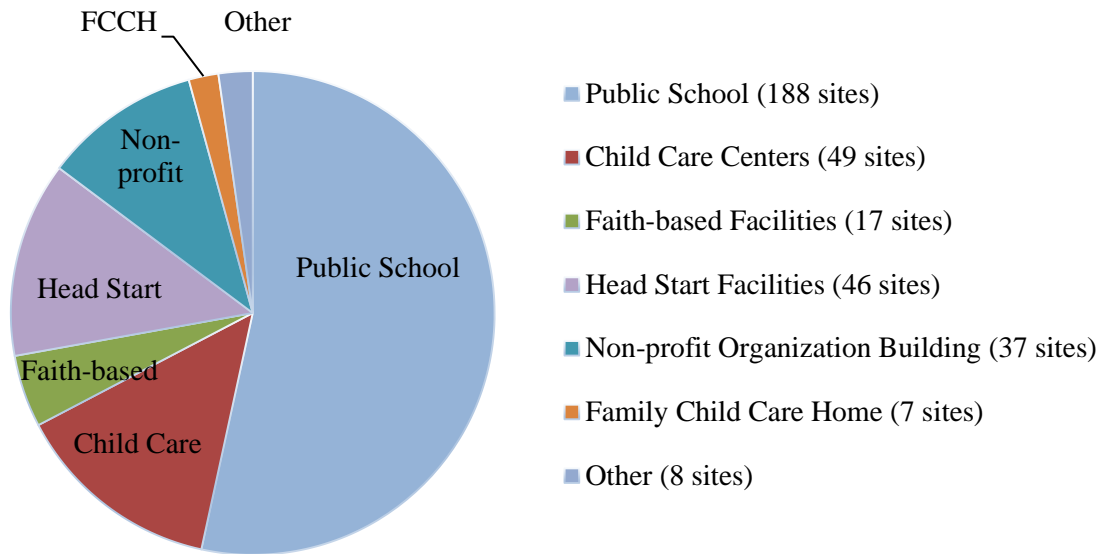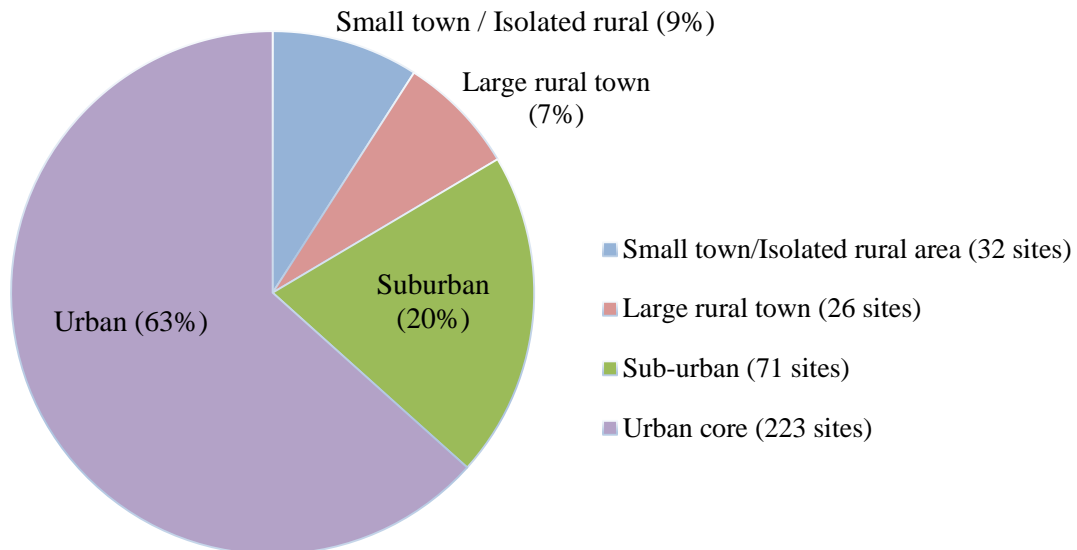**Figure 11: Number of Sites by Location Type** (N = 352)

- Public School (188 sites)
- Child Care Centers (49 sites)
- Faith-based Facilities (17 sites)
- Head Start Facilities (46 sites)
- Non-profit Organization Building (37 sites)
- Family Child Care Home (7 sites)
- Other (8 sites)

Figure 12: Population Density at Physical Location of ECEAP Sites*

- Small town/Isolated rural area (32 sites)
- Large rural town (26 sites)
- Sub-urban (71 sites)
- Urban core (223 sites)

* Population density is based on Rural Urban Commuting Area Codes (RUCAs) by site zip code.

Urban Core: contiguous built-up areas of 50,000 persons or more. These areas correspond to US Census Bureau's Urbanized Areas.

Sub-Urban: areas, often in Metropolitan Counties, with high commuting flows to Urban Cores (for example Eatonville in Pierce County). These areas also include all other areas where 30%-49% of the population commutes to Urban Cores for work.

Large Rural Town: towns with populations between 10,000 and 49,999 and surrounding rural areas with 10% or more primary commuting flows to these towns, as well as secondary commuting flows of 10% or more to Urban Cores.

Small Town and Isolated Rural Areas: towns with populations below 10,000 and their surrounding commuter areas and other isolated rural areas with more than one hour driving distance to a nearest city.

Next Steps

DEL and its partners are currently involved in planning an extensive expansion of ECEAP to meet the goal of access for every eligible child by the 2022-23 school year. This means serving more than 18,600 children each year in high-quality early learning settings. Expansion planning includes ensuring an adequate number of facilities and a well-trained workforce.

References

[i] http://www.wsipp.wa.gov/ReportFile/1576/Wsipp_Outcome-Evaluation-of-Washington-States-Early-Childhood-Education-and-Assistance-Program_Report.pdf

[ii] https://teachingstrategies.com/wp-content/uploads/2017/03/Research-Foundation-GOLD-2010.pdf

[iii] https://developingchild.harvard.edu/resources/toxic-stress-derails-healthy-development/

[iv] http://www.pbs.org/newshour/bb/toxic-stress-poverty-hurt-developing-brain/

[v] https://www.empathways.org/our-work/mobility-mentoring

[vi] https://del.wa.gov/earlyachievers

[vii] https://del.wa.gov/sites/default/files/public/QRIS/EarlyAchievers_DataDashboard.pdf

What is the Market Price of Daycare and Preschool?*

Grover J. "Russ" Whitehurst, Brookings Institution

Executive Summary

How much do parents spend on center-based daycare and preschool for their young children? In other words, what is the market price of these services? The answer is important for parents, government, policymakers, and providers. Using nationally representative data from the 2016 Early Childhood Program Participation Survey, I calculate hourly and annualized prices for parents who purchase at least eight hours a week of center-based care for a child under five who does not have a disability and do so without outside financial help in paying the fees. The results are analyzed by age of child, region of country, parental education, parental income, and hours of attendance.

For the country as a whole, the median price for a family with the characteristics described above is $8,320 a year and $5.31 an hour. Families spend somewhat more in the Northeast and West, and somewhat less in the South and Midwest. Spending in absolute terms goes up with family income and education (e.g., a mean of $11,652 for families making more than $150k a year contrasted with $5,900 for families making from $50-60k a year). Conversely, spending as a percentage of family income goes down with rising socioeconomic status (e.g., 7% for families making $100-$150k vs. 12% for those making from $50-60k). Spending is inverse to the age of the child (e.g., $10,400 for infants vs. $6,500 for four-year-olds).

One of the most provocative findings is that infants who are receiving center-based care for at least 8 hours a week, as is the case for older age groups in the sample, are in center-based care for many more hours a week than older children. For example, median weekly hours for such infants is 40, whereas it is 24 for four-year-olds.

Introduction

Questions about cost (how much is being spent) and price (how much is being charged) for the center-based care[1] of young children loom large among parents, the childcare industry, policymakers, and government. This is notably so in efforts by city, state and federal government to expand access to center-based care, which involves fraught decisions about how much should be spent on each enrollee to make possible a quality program. This, in turn, interacts with political and budgetary realities to determine the ages and numbers of children that government decides to serve.

Part of the politics of advocates for expanding taxpayer funded center-based care is including as many families as possible as beneficiaries so as to increase public support. This generates tension between spending what is thought to be necessary for quality programs vs. serving the maximum possible number of families. We see this playing out in public controversies, for example, about whether government is spending too little (about $2,500 a year per child in Florida, [2] the nation's largest state program) or too much (about $16,500 in the District of Columbia). [3]

For government and other funders, what is the right amount to spend on what type of center-based service for whom? How much of that expenditure should be borne by the parents of the young children receiving services

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[1] "Center-based care" is used herein to refer generically to any center-based program that is not in a private home and that provides regular care for young children in a group setting. This includes programs that primarily provide a supervised setting for children to play and engage in age-appropriate activities (daycare) as well as programs that have an explicit education mission (preschool or pre-K).

(through, for example, a sliding fee schedule based on family income)? And, for parents seeking to purchase center-based care on their own dime or for government trying to generate reasonable estimates of the costs of expansion of public programs, what are the going rates?

We are a long way from being able to answer questions about appropriate levels of expenditure for quality programs. This is due to the absence of credible research demonstrating causal links between child and family outcomes and levels of spending on center-based care. We can, however, fill in gaps in knowledge about how much is being spent.

That is the question addressed here: How much are individual households spending to send a child to a center-based program when no one is helping them pay, i.e., what is the market price? Of course, price in this case is set in conditions that are far from a free and unfettered market. Government intervenes in numerous ways, including roughly $26 billion in annual spending by the federal government on programs and tax expenditures to support the care and education of young children. [4] Some states and cities also have assumed substantial costs to provide free public preschool programs.

Knowledge of the market price for center-based early childhood programs, notwithstanding that it is influenced by government expenditures, can be valuable to parents who are planning to have children and those already paying for services. Market price also provides a useful anchor for discussions and decisions about how much government should be spending. Similarly, information on market price can inform decisions by states or localities on how to set sliding fee schedules or eligibility cutoffs so as to focus state expenditures on families in greatest financial need, while not at the same time driving away families with higher incomes whose children can provide needed socioeconomic diversity in daycare and preschool centers.

Existing data on market price for early childhood programs is surprisingly spotty and uncertain. The primary up-to-date source is an annual compilation by an advocacy organization, Child Care Aware of America. [5] It is based on surveys of state-level Child Care Resource & Referral (CCR&R) officials about the prices that licensed providers within their state are charging. These officials, in turn, survey individual providers within their state in order to be able to determine the fees they are charging their customers. [6]

The information from providers is valuable but has limitations. Among them are that it is not collected in the same way from state to state; misses center-based programs that fall outside the licensed provider network; does not incorporate corrections for sample bias; and, most critically, does not incorporate information from individual families on their daycare and preschool expenses.

Knowing what licensed centers across a state charge is not the same thing as knowing what parents pay. The price parents pay depends on the number of hours their child is enrolled, the child's age, the parents' financial resources, the communities being served, and many other factors. The price paid by parents for center-based care is to the Child Care Aware data as the amount of money that families spend eating out is to a compilation of menu prices of restaurants.

Methods

To provide an estimate of parents' expenditures on center-based case I take advantage of newly released data from the Early Childhood Program Participation Survey (ECPP), which was carried out on behalf of the National Center for Education Statistics by the Census Bureau as part of the 2016 National Household Education Survey. [7] The ECPP was previously administered in 2005.

The ECPP surveys a nationally representative sample of about 5,500 households with children under five years of age. [8] Parents answer questions on their children's participation in early childhood programs, including the hours

that children spend in such programs and how much the parents are paying. The ECPP is administered to parents along with other survey questions that generate extensive background information on children and their families, e.g., the family's total income and the parents' education.

The present analyses examine the data through different lenses than were used in the NCES report of the data that was released in September of 2017. [9] The differences between the present treatment of the data and that of NCES are primarily in the form of selection restrictions. For instance, the NCES report covers children through age five who are not yet in kindergarten, whereas the present analyses include only those households reporting on a child under five years of age – the "age restricted sample."

I use a narrower selection window than NCES for age, as well as other variables described subsequently, in order to generate results on market price that are most applicable to the general customer base and policymaking context of center-based programs for young children.

On children's age, for example, a child's entry into kindergarten in a public school typically requires that the child has turned five by September of the year of enrollment. The ECPP dataset provides a year-of-age marker for each child based on the child's age on December 31, 2015. A child who is five at that point and is not enrolled in kindergarten is statistically unusual as well as likely to have characteristics or to be in circumstances that are different from those of the mass of children whose families participate in the market for center-based programs. Including these children in analyses and categorical summaries of usage and price, as NCES does, can be misleading or beside the point. For example, I cannot think of an interesting policy question that would be informed by knowing the percentage of children from three to five years of age who are in center-based care. In contrast, I have trouble thinking of any system-level policy question that would not be informed by knowing the percentage of four-year-olds receiving such services. NCES reports the former, but not the latter.

On the same theme of aligning the analysis and reporting to relevant policy questions, I use a "customer subsample" that further restricts the population being studied to households in which parents purchase, without financial help from others, at least eight hours a week of center-based care for a child under five who does not have a disability. The disability exclusion is in place to avoid generating price estimates that are skewed upward by children who have special and costly needs. The exclusion of families who are receiving help from outside their household in paying fees is in order to determine what families themselves are able and willing to pay. The exclusion of families who are using center-based care for less than eight hours a week is to assure that the results are not distorted by families who are purchasing specialized or incidental services that are unlike in kind or price to the typical center-based care on which this report focuses.

In other words, the focus of the analyses that follow is on parents who purchase a significant number of hours of prototypical center-based care out of their own resources for a child under five who does not have a disability.

This customer subsample of parents is, not surprisingly, more educated and affluent than parents who are identically selected except that the costs of their child's attendance are covered in whole or in part by entities outside the family. For example, families that send their child to a "free" federally funded Head Start program are much more disadvantaged economically than the families in the present customer subsample who are paying the full freight for a fee-for-service center. Again, the goal of the present analysis is to estimate the market price of center-based care. Thus, the selection conditions generate a sample of the customers for centers that charge a fee.

The market price of center-based care is defined here as the amount paid by these self-financed parents. I am able to calculate the fees these parents pay on an hourly basis for an individual child, and then annualize that number based on the hours that the child is reported to attend a center each week. [10] I examine how hourly and annualized expenditures by parents vary with a number of characteristics of child, family, and setting. [11] Together, the analyses that follow come closer than heretofore to a valid estimate of the market price for center-based care for

normally developing young children under five years of age who are receiving such care for a substantial number of hours each week. [12]

Population Levels of Child Participation in Center-Based Care by Age of Child

The following graph includes all families in the sample who have a child under age five (the age restricted sample), not just those in the customer subsample. It addresses a superordinate and policy-relevant question of the prevalence of center-based care by age of child. The finding is a dramatically increasing participation rate by age, starting with 13% of children from birth to one year of age regularly attending a center-based program and rising to 66% for four-year-olds. The latter percentage is very close to the estimate of 69% I reported in a previous publication based on calculations on an entirely different set of data. [13]

Regularly Attending Center-Based Program

BROOKINGS
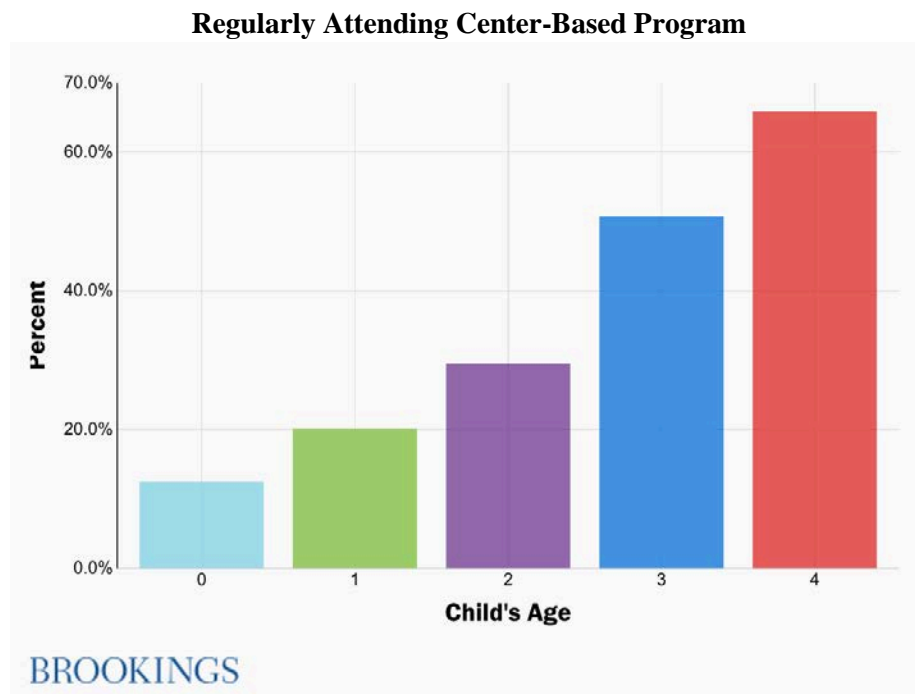
Hourly Price, Yearly Price, and Hours of Attendance by Age of Child

The following table presents the hourly and yearly price paid for center-based care by families in the customer subsample (fee-paying, self-financed households with a normally developing child under five years of age attending a center-based program at least 8 hours a week). Because the standard deviation for payments is so large (skewed upward by affluent families), I present the median for payments, along with the mean. The means in the table are lower than those reported by Child Care Aware based on its survey of program providers, but in the same range, e.g., the Child Care Aware average of state averages for the yearly price of infant, toddler, and four-year-old center-based care is $9,697, [14] contrasted with $8,933 from the present sample of parents.

Hourly Price for Center Program			Yearly Price for Center Program		
Mean	Median	Std. Deviation	Mean	Median	Std. Deviation
$7.26	$5.31	$7.11	$8,933	$8,320	$5,657

Where does the price parents are paying for center-based care for a young child fit in the context of K-12 education? Recent figures indicate that the national average spending per child in public education is about $12,500 a year. [15] The school year is roughly 7 hours a day for 180 days. That is roughly $10 an hour. So, K-12 public education costs

more than parents are paying for daycare and preschool, which is reasonable given that K-12 education is a more resource-intensive activity, teachers typically make more, and the K-12 dollar figure includes spending on services for students with disabilities. The point is that the estimates in the tables above are in a reasonable range given what one might expect from the Child Care Aware survey and the calculated costs of K-12 education.

Center-based care is thought to cost more for infants and toddlers than for older preschoolers because a larger staff is necessary to care for the needs of the youngest children. In that regard, the National Association for the Education of Young Children recommends no more than 8 infants in a group with 2 teaching staff, whereas the recommended maximum group size rises to 20 for four-year-olds. [16]

There is an association between the mean values for hourly price by age of child in the following table, but the differences are smaller on an hourly basis than I would have guessed. Further, the only sizable dip in price occurs for four-year-olds compared to younger children, whereas the recommended maximum group size goes up for each age group. Where the received wisdom on the relationship between age of child and price is borne out is on yearly price. We see that the price parents are paying for their infant to attend a center-based program is about 60% higher than parents are paying for their four-year-old.

Hourly Price by Age of Child				**Yearly Price by Age of Child**		
Child's Age as of Dec 31, 2015	Mean	Median		Child's Age as of Dec 31, 2015	Mean	Median
0	$8.02	$5.53		0	$11,417	$10,400
1	$7.90	$5.63		1	$11,650	$10,972
2	$7.17	$5.75		2	$8,890	$7,826
3	$7.41	$5.25		3	$8,179	$7,540
4	$6.53	$4.72		4	$7,053	$6,500

What accounts for the divergence between the hourly and yearly price by age of child? The next table indicates that the underlying factor is the number of hours each week that the child is in center-based care. It is surprising to me that infants who are receiving center-based care for at least 8 hours a week are, on average, spending more time in center-based care than older groups of children (who are, likewise, in center-based care for at least 8 hours a week). Further, a median of 40 hours per week for infants means that half of them are in center-based care for more than 40 hours a week.

**Hours Each Week Child Attends
Program by Age of Child**

Child's Age as of Dec 31, 2015	Mean	Median
0	35.02	40
1	24.17	40
2	29.11	35
3	26.11	27
4	25.52	24

My surmise is that parents who are paying for 40 hours a week, or more, of center-based care for an infant are doing so because they need to work, and infant care from another family member is unavailable, as is affordable individual care from an unrelated adult. The much larger group of parents who are purchasing center-based care for four-year-olds, in contrast, includes many families who are voluntarily enrolling their child for less than a full-time preschool experience and have options for the care of their child for the rest of the week, including having a family member care for the child at home.

Family Factors That Are Associated With Hourly Price

As depicted in the next table, the hourly price that families are paying rises with the educational level of the parents. Graduate and professional families pay more than twice what parents with less than a high school education pay. To the extent that price affects quality and quality affects long-term outcomes for children, this is a concern. Price is also affected by region of the country. The Northeast and West are more expensive than the South and Midwest.

**Hourly Price for Center Program by Parental Education**

Parent/guardian Highest Education	Mean	Median
Less than high school	$3.13	$3.13
High school	$6.21	$3.63
Vocational/technical	$5.21	$4.00
College	$7.65	$5.42
Graduate or professional	$7.88	$5.91

Hourly Price for Center Program by Census Region

Census Region Where Child Lives	Mean	Median
Northeast	$8.89	$6.39
South	$6.37	$4.76
Midwest	$6.55	$4.98
West	$8.19	$6.25

The strongest single variable in the data in terms of impact on price is family income, as illustrated in the next two graphs. Price rises substantially at the upper end of the distribution of family income. Price falls quite a bit at the lower end of the distribution. [17] The overall similarity of the relationship between price and income in the hourly and yearly graphs suggest that it is not primarily differences in total hours of utilization that are driving the results. Rather, as is the case for the previously described relationship between parental education and price, families with more economic advantage are paying more. And, as before, to the extent that price is associated with quality and long-term outcomes, the disparity between affluent and poor families in the price being paid for center-based care is of concern.

Hourly Price by Family Income

Annual Price by Family Income
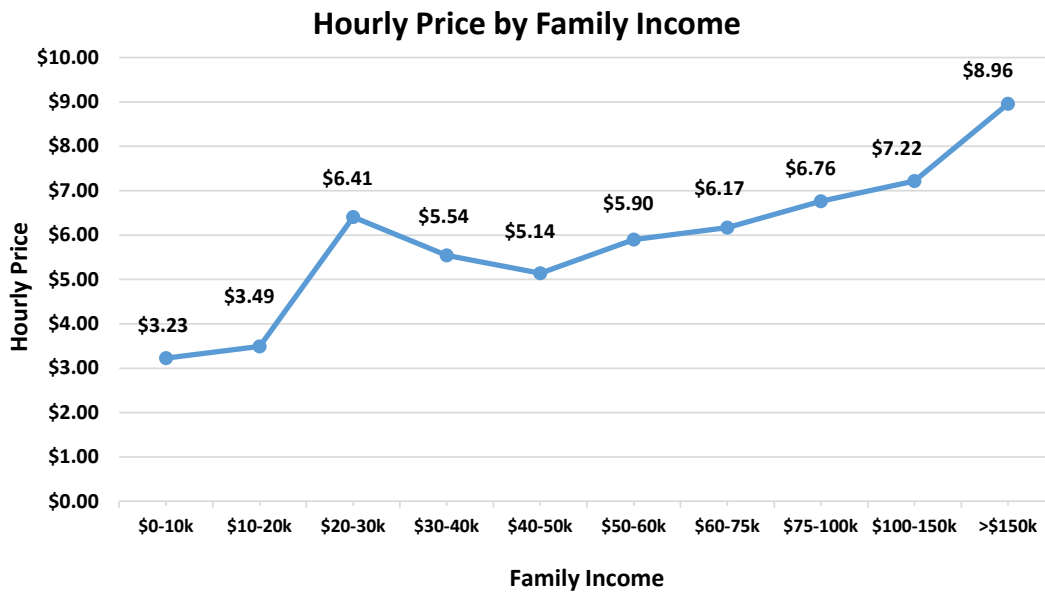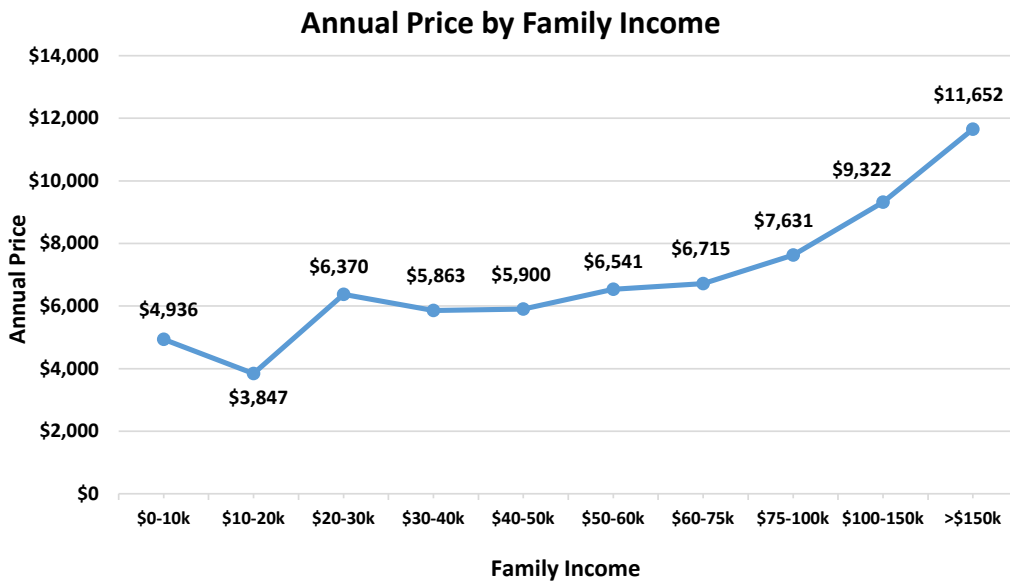
A central factor that seems to be driving differences in the price paid by families for center-based care is what economists would describe as the demand curve: the relationship between the price of a good or service and the amount of it that consumers are willing and able to purchase. In that regard, it is obvious that a family whose total annual income is between $10-20k will be very unlikely to pay over $11,000 a year for center-based care (the mean price paid by families making more than $150k a year).

Differences in the demand curve by family socioeconomic status likely play out not only in what families pay but in the characteristics of the centers that serve communities in which most of the customers are within a restricted range of economic advantage. Thus, a center that serves an upper-class community will not only charge more to parents than a center that serves a lower-class community, but also spend more on staff and facilities and materials.

An interesting and policy-relevant question about the demand curve is the proportion of family income that families are willing and able to spend on center-based care. The ECPP obtains reports of family income from parents only in the broad categories used in the two previous graphs, e.g., $60-75k. Using the midpoint of the separate ranges of family income depicted in the graphs, the following graph represents the proportion of family income spent on center-based care for one child conditional on level of family income. The graph excludes the highest category of >$150k (because it does not have a calculable midpoint), as well as the lowest category of $0-10k (because it has only a small number of sample units).

Annual Price as Percent of Family Income
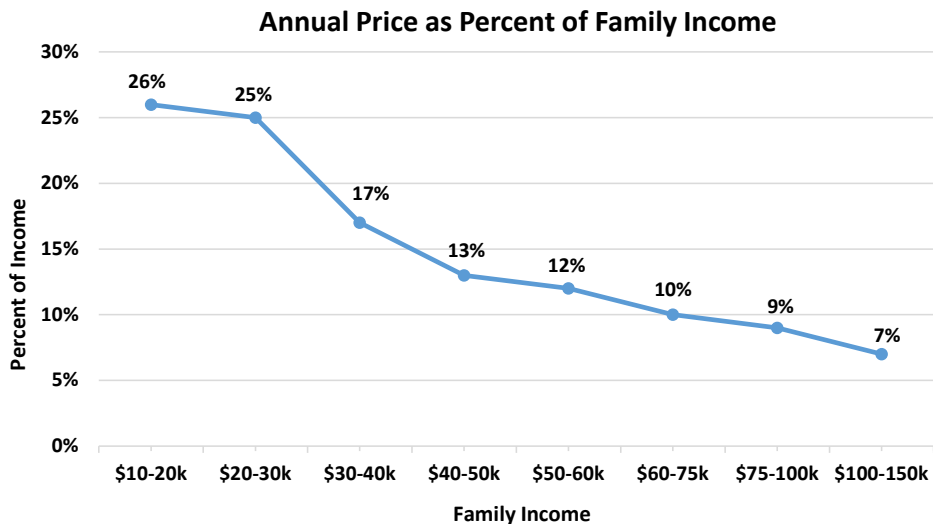
The greater the income of families purchasing center-based care for a young child, the less the percentage of that income is spent on center-based care. At the same time, as made clear by previous graphs, more affluent families are spending more on center-based in absolute terms. In other words, the financial pain of purchasing daycare and preschool services is less for more affluent compared to less affluent families, whereas the absolute price of the service is higher for more affluent families, with likely impacts on quality.

Conclusion

The evidence presented above is descriptive. As such, it does not provide dispositive support for any particular policy positions on the provision and financing of daycare and pre-K. That said, the realities of what families of different income and educational levels are paying for center-based programs are important to framing policy questions. For example, those with a social justice perspective might use the findings here to argue that low-income families should not have to expend more on daycare as a percentage of their total income than middle class families. They could then propose and advocate for particular types of taxpayer supported subsidies to achieve their goal. [18] On another side of the policy debate, opponents of the expansion of public subsidies to support responsibilities that families in prior generations handled themselves, could, based on the present findings, argue that a lot of parents across a broad swath of socioeconomic levels utilize center-based care for their young child without having to have government assistance. [19]

Evidence doesn't speak for itself, but it gives voice and reason to those who see a problem and want to solve it.

About the Author

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Notes:

2. http://curry.virginia.edu/uploads/resourceLibrary/EdPolicyWorks-Report-FL-VPK.pdf

3. https://dc.gov/release/district%E2%80%99s-pre-k-program-continues-lead-nation

4. https://www.brookings.edu/research/why-the-federal-government-should-subsidize-childcare-and-how-to-pay-for-it/

5. https://usa.childcareaware.org/wp-content/uploads/2017/12/2017_CCA_High_Cost_Report_FINAL.pdf

6. https://www.dhhs.nh.gov/dcyf/cdb/documents/market-rate-survey-2016.pdf

7. https://nces.ed.gov/nhes/surveytopics_early.asp

8. The ECPP includes families with older children. Data in the present report are only for households with children under five years of age.

9. https://nces.ed.gov/pubs2017/2017101.pdf

10. The ECPP asks parents how much they pay for center-based care for their child, and then asks the temporal unit of that payment, e.g., hour, week, year. The parent is also asked the number of hours each week the child is in center-based care. Two of the units of payment the parent can report using, "per day" and "other", cannot be

decomposed into an hourly rate, e.g., a parent who reports her child is in a daycare center 10 hours a week and her daily rate is $20 could be paying $10 an hour if her child goes to the center five days a week or $2 an hour if the child only attends the center one day a week. Households using these two ambiguous reporting categories for units of payment (1.7% of the total sample) are excluded from analyses of the sample of self-financed, fee paying households. Also excluded, in order to be able to calculate spending per child, are households that report that their payment covers more than one child.

11. All analyses reported herein use the full sample weights. This produces units for analysis that reflect the population the sample was drawn to represent.

12. All the information generated by the ECPP is derived from the self-report of parents being interviewed. The respondents are subject to lapses in memory, biases, confusion about what is being asked, and lack of complete information.

13. https://www.brookings.edu/research/do-we-already-have-universal-preschool/

14. https://usa.childcareaware.org/wp-content/uploads/2017/12/2017_CCA_High_Cost_Report_FINAL.pdf

15. https://nces.ed.gov/fastfacts/display.asp?id=66

16. https://www.naeyc.org/our-work/families/10-naeyc-program-standards

17. This, and the other associations highlighted in the text, are simple correlations, not demonstrations of causation. In this case, the relationship between price and family income might be partly driven by cost of living, i.e., in higher cost of living areas incomes and child care prices both tend to be higher. The ECPP does not provide data at a small enough geographical scale to explore this possibility.

18. https://www.brookings.edu/research/family-support-or-school-readiness-contrasting-models-of-public-spending-on-childrens-early-care-and-learning/

19. https://www.washingtonpost.com/opinions/paid-maternity-leave-your-baby-will-get-the-bill/2018/03/30/1d125694-2dfb-11e8-8688-e053ba58f1e4_story.html?utm_term=.3f040baf75e7

Commentary

From NCLB to ESSA: What Has Changed? What Hasn't Changed?
Reflections on ESSA Results

Fengyi Hung, Tacoma Public Schools

Education system accountability needs to be built on mutual accountability among all education agencies (state, districts, and schools) and not just emphasizing "failing" schools. Too often the state and federal accountability put emphasis and pressure on teachers and schools, as if schools can operate, instruct, and succeed on their own.

The No Child Left Behind Act (NCLB) brought focus to achievement gaps in our state as well as across the nation. The intent was good, but the law was punitive to schools and districts. With the onset of Every Student Succeeds Act (ESSA) and the Washington School Improvement Framework (WSIF) this spring, we have seen good progress to having a better school accountability system.

- The state's new framework uses a 3-year average to calculate ESSA scores, as compared to one year's result during the NCLB era.

- English Learners Progress on ELPA21 is included in the same framework, as opposed to having two different accountability reports during the NCLB era.

- A higher percentage of the ESSA scores are based on student growth, instead of only on proficiency under NCLB.

While ESSA is a much-needed change, more work still needs to be done in two areas to shape our state's accountability system: (1) reducing the correlation between the school's ESSA score and external factors, such as a school's percentage of low-income students (i.e., those who qualify for a free or reduced-price lunch, or FRL), and (2) creating a better student growth measure.

The most significant problem that needs to be corrected is the strong relationship that exists between the WSIF scores and the type of students that schools serve. Unpublished statistical analyses conducted by Pete Bylsma in the Mukilteo School District showed the correlations between Washington school accountability scores and a typical school's FRL percentage ranged from –.69 to –.76, with more than 50% of the total variance explained by FRL. An accountability system that generates a high percentage of variance explained by FRL, which is beyond educators' control, has a defeating effect. The system's underlying message to our teachers and principals is, *"the quality of your school is determined more by the type of students you educate, not by your instruction and impact on student learning."* Those who choose to serve in a high poverty school are almost pre-determined to have lower WSIF scores than the schools close by that serve better-off student populations.

Facing the up-hill battle with little chance to "win" or "score well" on ESSA scores is a concern because we (parents, districts, OSPI) need our teachers to focus on high quality instruction and use data/evidence-based decisions. When ESSA results have been "pre-determined" by FRL in the fall, before the instruction begins, I wonder how many dedicated teachers in Washington state are willing and happy to work 10-12 hours every day and "accept" the upcoming ESSA failing scores three years later. This issue may explain the challenges in recruiting and retaining high-quality teachers, coaches, and school administrators among high poverty schools.

I grew up in Asia where both my parents were teachers (mom taught elementary grades for 35 years and dad taught high school for 20 years). I was a teacher for 5 years myself in Taipei First Girls' High School, one of the most prestigious high schools in Taiwan. I have unwavering respect for Washington state teachers and school administrators because they fight the "invisible war and negative stereotype" to improve student achievement. It's

tough to be a good teacher, and it's even tougher (almost impossible) to excel in high poverty schools. Labels implying failure should not be applied to high FRL schools in the name of school improvement. FRL status should not be the single, most powerful predictor of labels applied to student, classroom, and school success. In order for accountability results to be meaningful and, more importantly, drive deeper conversation about teaching and learning among all educators in Washington state, the new ESSA system should minimize the weight of FRL and call for stronger focus on student growth and "schools alike" comparisons.

The second area where more work needs to be done relates to measuring student growth. The state currently uses student growth percentiles (SGPs) as its measure of student growth. SGPs have been used in 22 states for teacher accountability, school improvement plans, and other purposes. However, in a recent study from the Center for Educational Assessment (Sireci, Wells, and Kellers, 2016), the authors reviewed recent research and stated, **"Only one conclusion is justifiable from the research conducted on SGPs – they should be abandoned and not used in education"** (page 2, bold in the original). The authors give six reasons for this conclusion.

1. "SGPs are not what people think they are.
2. SGPs are unreliable.
3. Educators do not understand how to use SGPs.
4. There is no validity evidence to support the use of SGPs.
5. Current use of SGPs violates the *Standards for Educational and Psychological Testing*, and statements on value-added modeling issued by the American Educational Research Association and the American Statistical Association.
6. SGPs encourage comparing students to each other, rather than to the knowledge and skill areas they are being taught." (page 2)

Specifically, the authors illustrated that SGPs contain so much error that students would receive very different SGPs if they retook the same tests in the same year. For example, "if a student is reported to have an SGP of 50, the margin of error is about 30 points on either side, indicating the "true" SGP for the student could be anywhere from 20 to 80, which is almost the entire SGP scale. This finding has been replicated by researchers from several different institutions" (page 5). SGPs gained popularity a few years ago and were adopted by states before sufficient research and reliability studies become available. It is time to evaluate the use of SGPs which count for 25% to 50% of final ESSA score. If they are used at all, SGPs should not be the only indicator for ESSA student growth. Some type of criterion-referenced measure based on adequate growth is needed.

It was an honor to serve on OSPI's ESSA Technical Advisory Committee, one of 12 workgroups with more than 200 members statewide providing feedback for the state's ESSA Consolidated Plan. I believe OSPI and the State Board of Education are striving to design and implement the best possible Washington School Improvement Framework. But I believe the work of building a more meaningful and useful accountability system is yet to come.

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