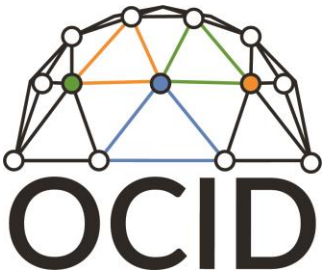

Oregon Child Integrated Dataset

2019-2021 Funders' Report

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Directors' Message

The Center for Evidence-based Policy (Center) spent the 2019-2021 biennium building the Oregon Child Integrated Dataset (OCID) and producing initial products to demonstrate its potential value to Oregon policymakers and decision makers.

Our work began with updating agreements needed to access the data and then building an integrated dataset from disparate program information from 5 state agencies. We developed a publicly available website, a Well-being Dashboard, and conducted initial analyses around 2 policy topics — *Students Enrolled in Oregon's Public Alternative Education Schools* and *Childhood Program Participation and Early Educational Outcomes*.

OCID's approach is to layer and connect data across public programs and longitudinally, enabling a multifaceted look on how children and families are being served across state agencies through multiple state programs and systems, using public investments. This integrated approach enables awareness of historical and present patterns that would otherwise be isolated in the siloes of individual programs and agencies.

The new biennium brings an extensive list of aspirations for OCID:

- Work with Oregon's policymakers to develop relevant and timely analyses to inform current policy decisions with data and evidence.
- Cultivate dynamic online display tools that enable Oregon decision makers to explore patterns, populations, and trends.
- Continue partnerships with state agencies to expand both the depth and breadth of data available in OCID.
- Develop new approaches for using cross-program data to better understand the children and families served with Oregon public resources.

In short, the foundation of OCID is now built, thanks our funders. We encourage you to explore the OCID website and its growing library of policy briefs, the information in the Dashboard, and interactive displays. We look forward to your feedback. With your help, we are confident that OCID's second biennium can be even more successful than the first.

With warm regards,

Pam Curtis, Center Director, and
Gretchen Morley, OCID Project Director

OCID Products, July 2019–July 2021

Child Well-being Dashboard

The Child Well-being Dashboard was OCID's flagship product, and the first priority for the initial public-private funding. The Dashboard has been operational since early 2020 and has been expanded to include cross-program data on 9 education, health, and child welfare indicators of childhood well-being.

The Dashboard allows for extensive exploration of how groups of children compare on the 9 indicators. In July 2021 new interactive displays were added to enable high-level snapshots of groups of children who have experienced a particular outcome (e.g., school attendance, student homelessness, foster care) before moving to the more detailed Dashboard displays for each indicator.

While the data cannot fully describe an individual's identity or experiences, the Dashboard gives a new vantage point to explore what is known about children's collective experiences and support data-driven questions and policy discussion.

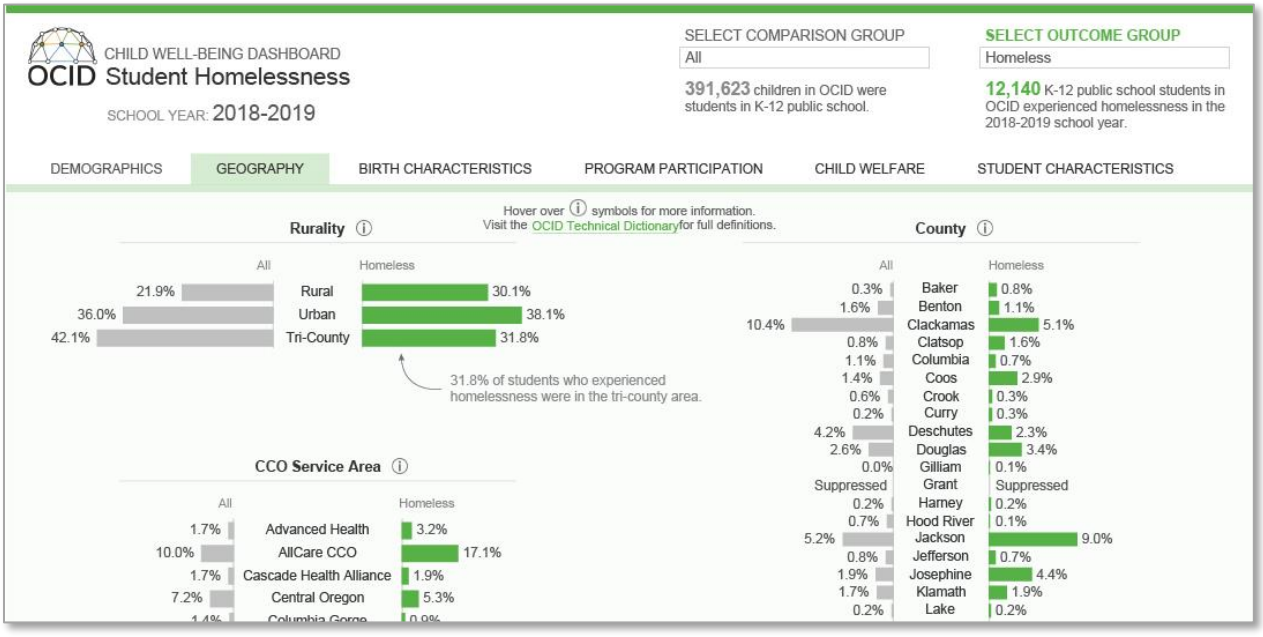
Example Dashboard Exploration

A user could explore characteristics of students experiencing homelessness compared with students who are housed:

- Students experiencing homelessness disproportionally live in rural areas.
- 30.1% of students who are homeless live in rural areas compared with 21.6% of students who are housed.

The user could further explore the academic experience of students experiencing homelessness by visiting the education displays, for example *9th Grade On-Track to Graduate*:

- 54.7% of freshmen experiencing homelessness in the 2018-2019 school year were on track to graduate high school compared with 84.6% of freshmen who were housed.
- These statistics do not vary much between the rural, urban, or tri-county regions.



Data Development: Race and Ethnicity Methodology

Across and within the OCID data sources there are inconsistencies in how different agencies collect and report race and ethnicity data, as well as variations in the categories available to respondents. OCID's overarching goal is to integrate data across multiple data sources to better understand the well-being of children and their families in Oregon. The ability to integrate information about personal characteristics, like race and ethnicity, is particularly valuable because these characteristics often serve as proxies for experiences, such as systemic racism, stress, poverty, or housing instability, which cannot be accurately captured with available data.

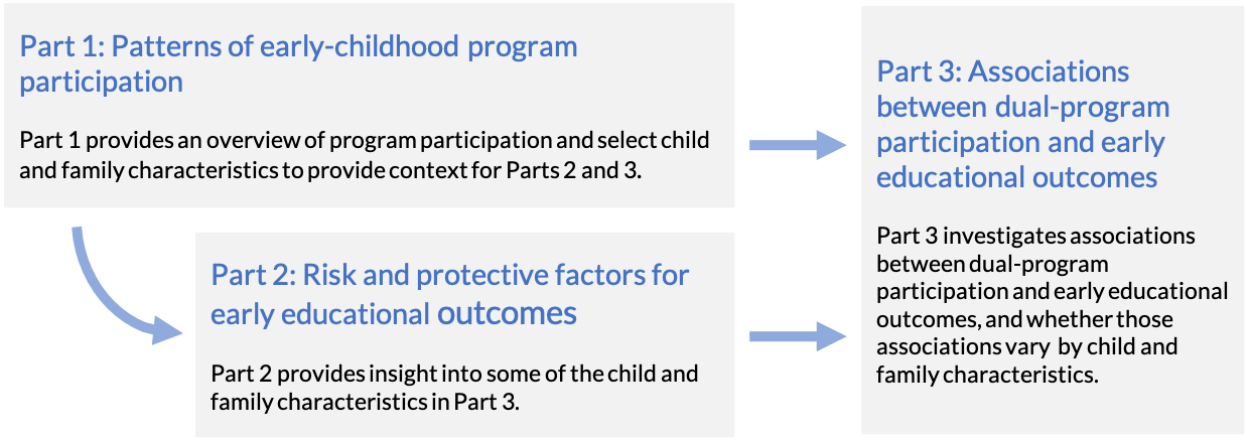
Over the past year, the OCID team worked with state subject matter experts to develop an initial methodology for determining race and ethnicity attributions for children when there are multiple options within and across points in time. This methodology is incorporated into the Child Well-being Dashboard and the OCID analyses, and is available on the OCID website. In the 2021-2023 biennium, the OCID team plans to explore additional areas in need of data integration methodologies, such as geographic boundaries, disability status, and socioeconomic status.

OCID Analyses

This year OCID released the project's first policy briefs and interactive visuals on 2 topics prioritized by the Governance Committee. These first analytic products are available on the OCID website and highlighted below.

Childhood Program Participation and Early Educational Outcomes

OCID's inaugural analysis, Oregon Childhood Program Participation and Early Educational Outcomes, examines relationships between participation in select public childhood programs and subsequent early educational outcomes through 3 interconnected components.



Part 1 - Patterns of Early-childhood Program Participation

Through interactive visualizations and an accompanying policy brief, Part 1 provides an overview of early-childhood program participation and select child and family characteristics to develop context for Parts 2 and 3 of the analysis.

Research Questions:

- What are the patterns of early childhood program participation for Oregon children and their families?
  - How many children participate in multiple programs?
  - Which programs are serving the same children?
- How do patterns of program participation vary among groups of children with different characteristics (e.g., sex/gender, race/ethnicity, geography)?

Early Childhood Programs Included in Analysis

SERVICE CATEGORY	PROGRAM(S)
Home Visiting	Babies First!/Maternity Case Management Healthy Families Oregon
Disability Services	Early Intervention Early Childhood Special Education
Public Preschool	Head Start/Oregon Pre-Kindergarten
Income Support	Employment-related Day Care Supplemental Nutrition Assistance Program Temporary Assistance for Needy Families
Health Support	Medicaid/CHIP

Select Takeaways

For children in OCID aged 0 through 4 years who were born in 2013:

- One-third had no involvement in any of the types of service examined.
- Two-thirds of children participated in at least 1 type of service.
- More than half of children participated in at least 2 types of services.
- Income and health supports were the most common combination of services.

Visit the interactive displays on the OCID website to explore program participation for children born between 2008 and 2013, including filter options for geography, demographics, birth characteristics and other attributes.

Part 2 – Risk and Protective Factors

The Part 2 policy brief examines which child and family characteristics are potential risk and protective factors associated with early educational outcomes and introduces concepts examined further in Part 3.

Research Question:

- Which child and family characteristics are potential **risk** or **protective** factors associated with early educational outcomes?

A **risk** factor is a characteristic that increases the likelihood of a negative outcome.

A **protective** factor is a characteristic that increases the likelihood of a positive outcome.

Risk factors and protective factors may include biologic, familial, community, and social characteristics that often serve as proxies for experiences that are not measured.

Child and Family Characteristics Examined:

- Demographic
- Birth circumstances
- Parental characteristics
- Participation in public income-based programs
- Child welfare involvement

Early Educational Outcomes Examined:

- Kindergarten approaches to learning
- Second grade regular attendance
- Third grade reading comprehension
- Fifth grade student homelessness
- Fifth grade school suspensions

Select Takeaways

- A mother's level of education at the time of her child's birth was directly related to her child's early educational outcomes. After controlling for other observed characteristics:
  - Being born to a mother with a college degree or higher increased the likelihood of positive outcomes across 4 of the educational metrics examined. The higher the level of mother's education, the stronger the association.
  - Being born to a mother without a high school diploma was related to negative outcomes across 4 metrics.
- 71% of students born to mothers with a college degree met third grade reading standards, compared with only 21% born to mothers without a high school degree.
- 1 in 5 students were born to mothers without a high school degree.

Part 3 – Dual-Program Participation and Early Educational Outcomes

The Part 3 policy brief first examined whether participation in certain pairings of public programs was associated with improved early educational outcomes over participation in a single program. The analysis then looked at whether the associations of dual-program participation were stronger or weaker among groups of students with certain characteristics.

Research Question:

- Among children receiving Medicaid/CHIP, is receipt of services through an additional public program associated with improved education outcomes?
  - Are those associations stronger or weaker among groups of students with certain characteristics (e.g., demographics, birth characteristics, education characteristics, program participation)?

Dual-program Participation

1. Medicaid/CHIP + public preschool
2. Medicaid/CHIP + disability services
3. Medicaid/CHIP + home visiting

Educational Outcomes Examined

- Attendance
- Assessments
- Discipline
- Housing

Early Childhood Programs Included in Analysis

SERVICE CATEGORY	PROGRAM(S)
Home visiting	Babies First!/Maternity Case Management Healthy Families Oregon
Disability services	Early Intervention Early Childhood Special Education
Public preschool	Head Start/Oregon Pre-Kindergarten

Select Takeaways

- After statistical adjustment, children who participated in Medicaid/CHIP + public preschool had:
  - Increased readiness for kindergarten
  - Reduced absenteeism in grades K-3
- Improvements in attendance were even stronger for children whose families were also consistently enrolled in TANF.

Future Directions

In light of these findings, policymakers might consider a number of important questions:

- How should Oregon use this analysis to increase the likelihood of successful early educational outcomes for its children?
- What additional analysis is needed to assist policymakers in using these findings to improve early educational outcomes for Oregon's children?
- How can investments in improving educational outcomes be evaluated, particularly considering the creation of the Department of Early Learning and Care?
- What are the roles and responsibilities of noneducation agencies and programs for advancing Oregon's early educational outcomes? How could these efforts be coordinated and measured?

Students Enrolled in Oregon's Public Alternative Education Schools

Study Overview

OCID's analysis, *Students Enrolled in Oregon's Public Alternative Education Schools*, is an initial, high-level description of students who had been enrolled in public alternative education schools. This analysis uses an equity approach, first examining data by race and ethnicity categories, and then by sex/gender and disability status.

There is little publicly available information on students enrolled in public alternative education schools. This descriptive analysis is a first step in bridging the knowledge gap by adding new and critical information on the education and noneducation programs serving these students.

Oregon's 7 Categories of Alternative Education Services

- ***Public* alternative education *schools***
- *Public* alternative education *programs*
- *Private* alternative education *programs* and *schools*
- GED Option Program
- Youth Corrections Education Program
- Juvenile Detention Education Program
- Long Term Care and Treatment Education Programs

There are 6 other categories (see box above) of alternative education services in Oregon that districts may decide to use. The OCID analysis focused in on public alternative education schools due to availability of data at the state level.

Research Questions:

- When and where have students accessed public alternative education schools?
- What were students' educational, individual, and family characteristics?
- What were students' patterns of contact with other publicly funded programs?
- Was there disproportionate representation by race and ethnicity categories, sex/gender, or disability status?

Characteristics Examined

Exposure to cumulative advantages or disadvantages

- Race/ethnicity
- Sex/gender
- Disability

Education system designation of supports, barriers, and outcomes

- Having an IEP
- Needing additional support to learn English
- Being 'on-track' to graduate at the end of ninth grade
- Experiencing school discipline

Exposure to family and community poverty

- Individual or community eligibility for FRPL
- Having a Medicaid-funded birth
- Attending a Title I school (indicating a high rate of poverty within a school)
- Experiencing homelessness

Exposure to barriers to health or access to resources

- Born with a low birth weight
- Exposure to prenatal tobacco
- Born to a mother with less than a high school education

Programs Examined

- Medicaid/CHIP
- Temporary Assistance for Needy Families (TANF)
- Supplemental Nutrition Assistance Program (SNAP)
- Juvenile justice (state and county levels)
- Head Start/Oregon Pre-kindergarten
- Child welfare (i.e., foster care and substantiated maltreatment)

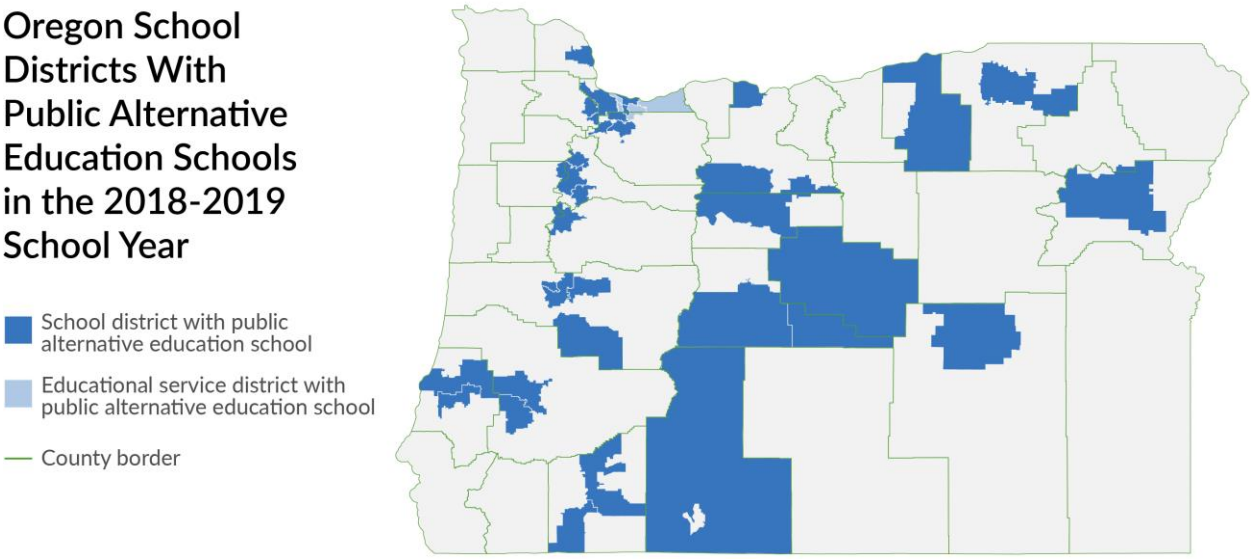
Select Takeaways

Timing and Location of Student Access

Among the nearly 7,500 students enrolled in public alternative education schools at any point between 2007 and 2019, approximately:

- 75% attended a traditional public school before enrolling in a public alternative education school, with the majority attending a traditional public high school.
- 25% enrolled directly into public alternative education schools in kindergarten.

As shown by the map below, there is differential access to public alternative education schools across geographical areas; however, the 6 other alternative education services may balance statewide accessibility.



Disproportionality of Educational, Student, and Family Characteristics

Compared with students enrolled only in traditional public schools, among students enrolled in public alternative education schools at any point between 2007 and 2019:

- A higher proportion had Individualized Education Programs (IEPs) (27.3% compared with 20.1%) at any point during their school career, a school system designation of having a disability that interferes with a student's ability to learn.
- Over 3 times the proportion experienced school discipline (49.8% compared with 15.4%) at some point during their school career.
- Proportionally half as many students were 'on-track' to graduate high school after ninth grade (49.1% compared with 88.6%).

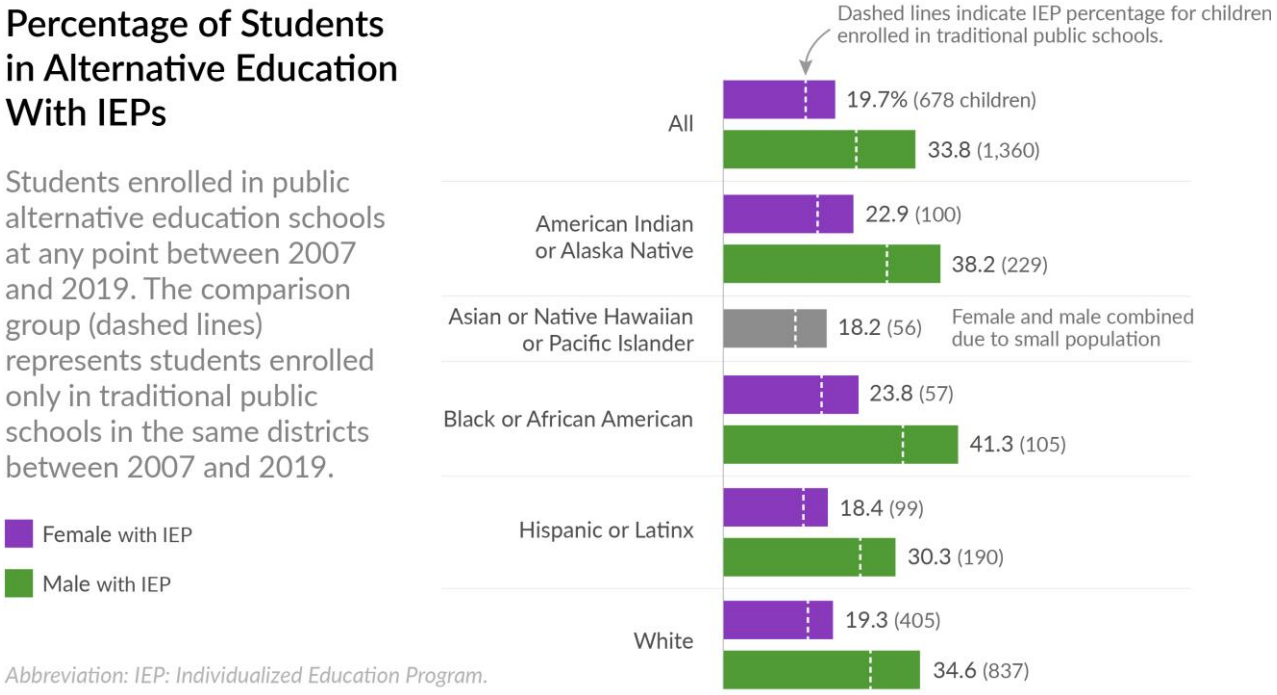
The chart below shows among students enrolled in public alternative education schools at any point between 2007 and 2019, higher proportions:

- Had IEPs compared with students only enrolled in traditional public schools in the same districts.
- Were identified as male with IEPs across all race or ethnicity categories.

Any association between race or ethnicity and outcomes does not imply that these social constructs caused the outcome or that there is a biological basis for differences between groups. Personal characteristics such as race and ethnicity often serve as proxies for experiences or exposures that cannot be measured accurately and completely with available data, such as systemic racism, stress, poverty, or housing instability.

Percentage of Students in Alternative Education With IEPs

Students enrolled in public alternative education schools at any point between 2007 and 2019. The comparison group (dashed lines) represents students enrolled only in traditional public schools in the same districts between 2007 and 2019.



Abbreviation: IEP: Individualized Education Program.

Future Directions

This analysis describes the administrative data collected about students enrolled in public alternative education schools in Oregon. Given this information, policymakers may want to consider a number of important questions, such as:

- What changes, if any, should traditional public schools implement to better serve students enrolled in public alternative education schools?
- When and how should ODE and other publicly funded programs work collaboratively to improve services for students in public alternative education schools?
    - Can programs leverage cross-program information, such as enrollment in multiple programs, to better serve children?

Community Engagement

As the project continues to develop, the OCID team hopes to reach a range of stakeholders who could provide insight into specific topics, and may benefit from OCID information to advance statewide and community child well-being goals. Since the project was not resourced to include robust stakeholder outreach and engagement, OCID's community engagement approach was developed with the Governance Committee, within available resources, to include:

- Attending existing stakeholder forums at the invitation of state agencies and members of the OCID Governance Committee.
- Holding biannual, open webinars to highlight OCID products and respond to questions about the project.
- Reaching out to a focused number of additional stakeholder communities prioritized by the Governance Committee.
- Using subject matter experts in Technical Advisory Panels (TAPs) for analyses.

Stakeholder engagement is crucial for the success of the OCID project and consisted of virtual outreach opportunities during the COVID-19 pandemic. In September 2020, OCID held an introductory webinar to an audience of state agency staff and community leaders. This was followed by a webinar in April 2021 regarding the key findings from the analysis of Childhood Program Participation and Early Educational Outcomes for legislators and their staff.

At the request of the Governance Committee, the OCID team has also met with legislative members from both parties in the Oregon House and Senate to demonstrate OCID's data platform and capabilities. These informational meetings led to a presentation to the House Early Childhood Committee. OCID also sits on the Governor's Children's Cabinet, provides periodic updates from the project, and coordinates with other members from the cabinet.

The OCID team invited subject matter experts to participate in Technical Advisory Panels (TAPs). This limited duration series of facilitated meetings focused on specific research questions and goals relevant to the analyses prioritized by the OCID Governance Committee. TAP members shared their insight, feedback, and advised through their expertise and experience with research, equity considerations, and available evidence.

OCID regularly engages with leadership and staff from the state agencies that supply data to ensure the OCID team has a robust understanding of programmatic detail, how the data may be used, and the strengths or limitations of the datasets. This also provides agency staff with an understanding of how the dataset is used and an opportunity to review the preliminary results for accuracy. The OCID team is available to meet with stakeholder groups as requested to increase understanding of the project and to get focused input.

Future of OCID

The Oregon Legislature has approved a new $2 million investment for the upcoming 2021-2023 biennium to continue the work of OCID. Under the guidance of the OCID Governance Committee, priorities include:

- Successfully complete the second annual data refresh of the OCID dataset, adding data for the 2020 birth cohort and programs from 5 state agencies.
- Strengthen the relationship between OCID and state-level policymaking, with an emphasis that OCID products are timely, responsive, and actionable. OCID will work with Oregon's policymakers and their staff to identify policy-relevant analysis topics. Deliverables include a new series of timely analyses and online dynamic display tools to generate data-informed questions and support evidence-based policy decisions.
- Develop new approaches to apply cross-program data to better understand the characteristics of children and families the state serves, such as behavioral health, disability status, and application of new geographic elements.
- Expand the depth and breadth of data available in OCID by adding new program data, additional agency information, and translating to interactive displays and analyses.
- Explore the feasibility of expanding OCID to include all children living in Oregon regardless of birthplace.
- Revise and renew the data use agreements (DUA's) through 2028 to reflect the priorities listed above and ensure continuation of data integration across state agencies and programs into the future.

Acknowledgments

OCID's original investment was made possible by Governor Kate Brown, the Oregon Legislature, and the generous support of private sector contributors. The Oregon Legislature provided $1.9 million for the 2019-2021 biennium. Another $1.0 million came from the philanthropic funders for a total 2019-2021 budget of $ 2.9 million.

The philanthropic organizations included:

- Ford Family Foundation
- Health Share of Oregon
- James F. and Marion L. Miller Foundation
- Kaiser Permanente
- Lora and Martin Kelley Family Foundation
- Oregon Community Foundation
- Oregon Hospital Research and Education Foundation
- PacificSource Foundation for Health Improvement
- WRG Foundation

Governance Committee

Governor's Office/Governor's Children's Cabinet

Rosa Klein
Berri Leslie (2019-2020)

Oregon Legislature

Rep. Alissa Keny-Guyer (2019-2020)
Rep. Raquel Moore-Green
Rep. Lisa Reynolds
Sen. Denyc Boles (2019-2020)
Sen. Bill Kennemer
Sen. Elizabeth Steiner Hayward

State Agencies

Pat Allen, Oregon Health Authority
Mark Greenwald, Oregon Youth Authority
David Mandell, Early Learning Division; Oregon Department of Education
Fariborz Pakseresht, Department of Human Services
Margaret Salazar, Oregon Housing and Community Services
Carmen Xiomara Urbina, Oregon Department of Education

Oregon Philanthropic Organizations

Kasi Allen, Ford Family Foundation
Marian Blankenship, PacificSource Foundation
Byron Grant, WRG Foundation
Martha Richards, Miller Foundation
Andy Van Pelt, Oregon Hospital Research & Education Foundation
Sonia Worcel, Oregon Community Foundation

Department of Administrative Service

Kathryn Helms, State Chief Data Officer

Ex Officio

Doug Wilson, Oregon Legislative Fiscal Office

In addition to these generous contributors, the OCID team would like to thank the numerous state agency staff and our analysis Technical Advisory Panels (TAPs) for providing subject matter expertise that bolstered our understanding of the data, the analytic approach, and the context of related research.

TAP members for *Oregon Childhood Program Participation and Early Educational Outcomes* included:

Dr. Philip Fisher
Philip H. Knight Chair & Professor, Department of Psychology, University of Oregon, Director, University of Oregon Center for Translational Neuroscience

Dr. Megan McClelland
Director, Hallie Ford Center of Healthy Children and Families Katherine E. Smith Healthy Children and Families Professor, College of Public Health, School of Social and Behavioral Sciences, Oregon State University

Dr. David Rothwell
Associate Professor College of Public Health, School of Social and Behavioral Sciences, Oregon State University

TAP members for *Students Enrolled in Oregon's Public Alternative Education Schools* included:

Dr. Connie Kim-Gervey
Research & Policy Analyst, Oregon Advocacy Commission

Dr. Andres Lopez
Director of Research, Coalition of Communities of Color

Dr. Marjorie McGee
Policy Data Analyst, Oregon Health Authority Equity and Inclusion Division

We thank the members of the OCID Governance Committee for their support, guidance, and dedication to the OCID project.

And finally, we appreciate our colleagues at OHSU's Center for Health Systems Effectiveness who were integral members of the OCID team over the past 2 years.

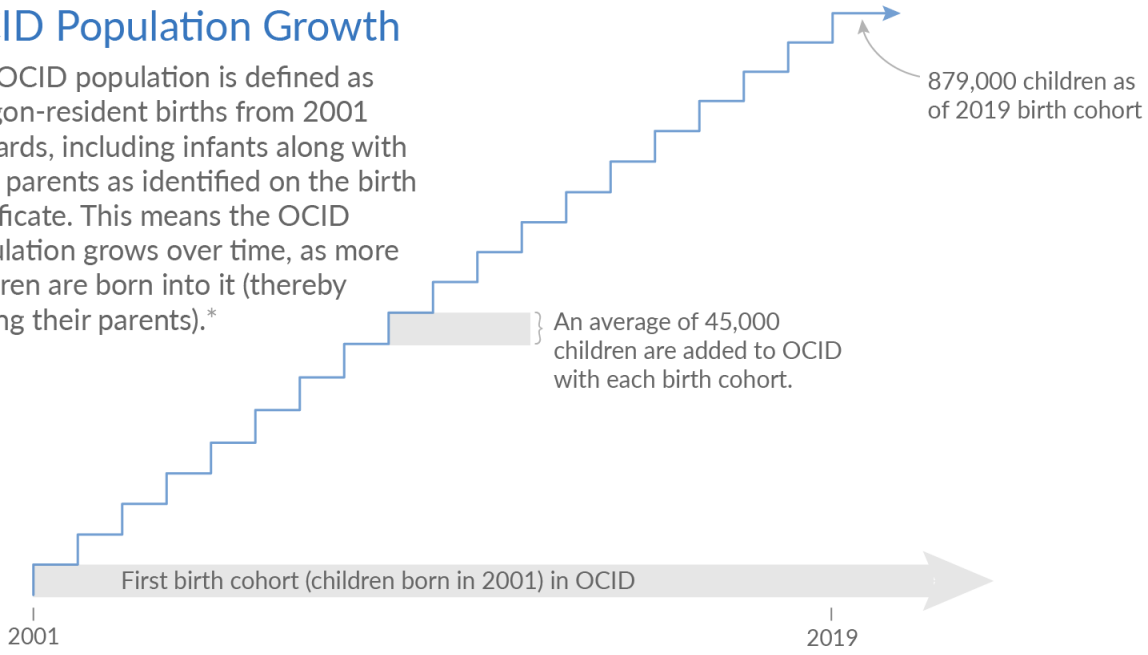
Appendix A: OCID Dataset

Created in 2019, OCID contains linked, cross-agency and cross-program information for children born in Oregon and their birth parents beginning in 2001. Program information is connected with birth records to show the trajectory of children's well-being from birth and throughout their development.

OCID is a resource unique to Oregon; no other state is known to have such a robust, comprehensive integrated dataset, representing approximately three-quarters of the state's children. With the Oregon-specific and timely data-driven evidence that OCID generates, policymakers will be able to more effectively and efficiently prioritize scarce resources and make meaningful public policy changes.

OCID Population Growth

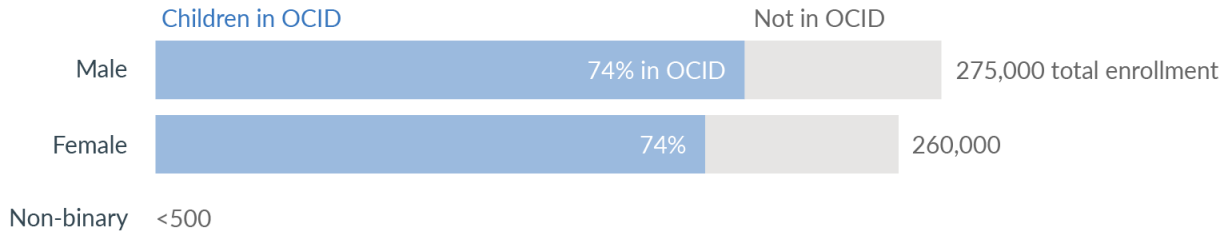
The OCID population is defined as Oregon-resident births from 2001 onwards, including infants along with their parents as identified on the birth certificate. This means the OCID population grows over time, as more children are born into it (thereby adding their parents).*



* The OCID population is by definition restricted to "Oregon-born" children. It does not account for children who have moved out of the state since birth or the estimated 22% of Oregon residents under 18 years who were born outside of Oregon.

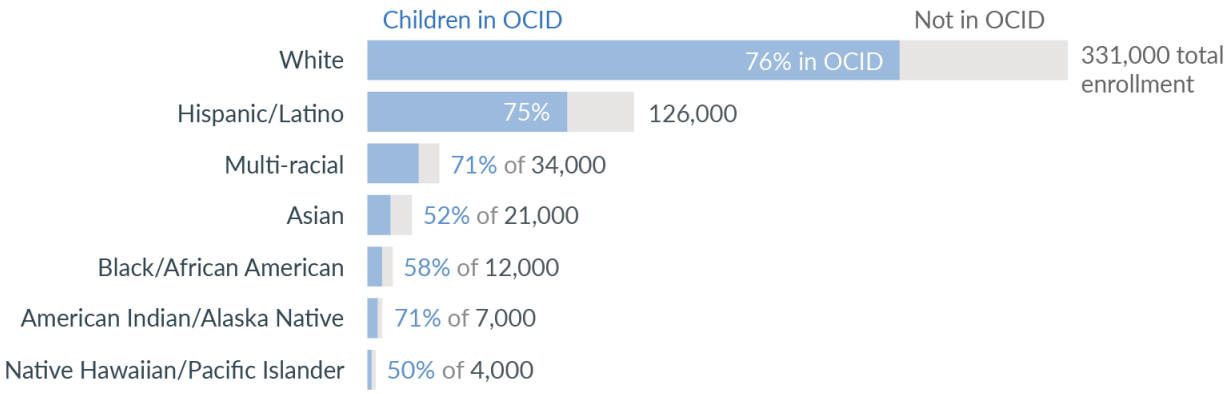
Sex/Gender of OCID Population (Grades K-11, 2018-2019 Snapshot)

Compared to total Oregon public school enrollment



Race/Ethnicity of OCID Population (Grades K-11, 2018-2019 Snapshot)

Compared to total Oregon public school enrollment



Source for total enrollment: Oregon Department of Education

Note: OCID does not fully capture the diversity of Oregon's population since OCID does not include public school students who were born outside the state.

Appendix B: 2019-2021 Project Timeline

- ❖ Website and Dashboard
- ❖ Analyses
- ❖ Dataset updates
- ❖ Communications/updates

2019

July-December
- ✓ Development of website and Child Well-being Dashboard

2020

January-June
- ✓ Soft launch of website and Dashboard
- ✓ New Dashboard indicators and improved interface
- ✓ Analysis #1 topic selected

July-December
- ✓ Official website launch
- ✓ Dataset refresh *(adding 2018-2019)*
- ✓ Analysis #2 topic selected
- ✓ Funders' Report Year 1
- ✓ Public webinar

2021

January-June
- ✓ New Dashboard indicators
- ✓ Analysis #1 completed
- ✓ Analysis #2 completed
- ✓ State funding secured for 2021-2023
- ✓ Public webinar
- ✓ Legislative presentations

July-December
- ✓ Dashboard expanded with additional display
- ✓ Funders' Report Year 2
- ❖ Dataset refresh *(adding 2020)*
- ❖ Analysis #3 topic selection