Prenatal-to-3 State Policy Roadmap 2020

Building a Strong and Equitable Prenatal-to-3 System of Care



The Prenatal-to-3 Policy Impact Center

Research for Action and Outcomes

Health, maternal care, family life, economic security, and early care and learning—the first three years shape the future of every child's life. The Prenatal-to-3 Policy Impact Center at The University of Texas at Austin LBJ School of Public Affairs translates research on the best public investments into state policy actions that produce results for young children and society. Our team of researchers and nonpartisan policy experts works with policymakers, practitioners, and advocates to navigate the evidence of what works, set priorities, act with confidence, and analyze results for continuous improvement. We help connect the complex social, economic, and health needs of families that support effective child development in the earliest years—seeking effective policies for each and looking at how all can work together for the greatest impact.

Explore pn3policy.org for:

- **Prenatal-to-3 Policy Clearinghouse** An ongoing inventory of rigorous evidence reviews of state-level policies and strategies that impact the prenatal to age 3 developmental period
- **Prenatal-to-3 State Policy Roadmap** An annual policy guide grounded in evidence that provides states actionable solutions to improve outcomes for all young children
- **Prenatal-to-3 Policy-Research Exchange** An opportunity for early childhood stakeholders to exchange ideas and experiences to advance scholarship and evidence-informed policymaking
- Building the Evidence Base A prioritized research agenda, developed in collaboration with scholars and practitioners, to continue to build a strong and equitable prenatal-to-3 system of care

Recommended citation: Prenatal-to-3 Policy Impact Center. (2020). *Prenatal-to-3 State Policy Roadmap 2020: Building a Strong and Equitable Prenatal-to-3 System of Care.* Child and Family Research Partnership. Lyndon B. Johnson School of Public Affairs, University of Texas at Austin. http://pn3policy.org/pn-3-state-policy-roadmap.

© Prenatal-to-3 Policy Impact Center at The University of Texas at Austin LBJ School of Public Affairs. All rights reserved.

ACKNOWLEDGEMENTS

The University of Texas at Austin established the national Prenatal-to-3 Policy Impact Center at the LBJ School of Public Affairs with initial support from the Pritzker Children's Initiative, a project of the J.B. and M.K. Pritzker Family Foundation, and the Buffett Early Childhood Fund.

The 2020 Prenatal-to-3 State Policy Roadmap is the result of a collaborative effort with the leading voices from the early childhood field, policymakers, scholars, and other stakeholders.

Thank you to the inaugural members of the Prenatal-to-3 Policy Impact Center National Advisory Council (NAC). The NAC is comprised of the leading scholars, practitioners, state leaders, advocates, and funders listed below, and their collective consultation has been invaluable in the Policy Impact Center's development of the Prenatal-to-3 State Policy Roadmap. Their support and constructive feedback have made our work and the Roadmap stronger and therefore more impactful.

Although the analysis in this Roadmap does not wholly represent the individual views of each of the members, they collectively acknowledge there are limits on the research currently available and are united in their commitment to build the evidence base to advance the field. We are grateful for their continued efforts to strengthen outcomes for all infants and toddlers.

Members:

- Christina Altmayer First 5 LA
- Joia Adele Crear-Perry, M.D. National Birth Equity Collaborative
- Libby Doggett, Ph.D. formerly U.S. Department of Education
- Greg Duncan, Ph.D. University of California at Irvine
- Janet Froetscher J.B. and M.K. Pritzker Family Foundation
- Janis Gonzales, M.D. New Mexico Department of Health
- A.J. Griffin formerly Oklahoma State Senate
- Thomas Hedrick Dillon Joyce Ltd
- Iheoma Iruka, Ph.D.– HighScope Educational Research Foundation
- Brenda Jones Harden, Ph.D.– University of Maryland
- Ruth Kagi formerly Washington State House of Representatives
- John B. King, J.D., Ph.D. The Education Trust
- David Lakey, M.D. The University of Texas System
- Joan Lombardi, Ph.D.– Early Opportunities LLC
- Michael Lu, M.D. University of California, Berkeley
- Tammy Mann, Ph.D.- The Campagna Center
- Ron Mincy, Ph.D. Columbia University
- Geoffrey Nagle, Ph.D.– Erikson Institute
- Jessie Rasmussen Buffett Early Childhood Fund
- Jack Shonkoff, M.D. Harvard University
- Margaret Spellings Texas 2036
- Jim Spurlino Spurlino Materials
- David Willis, M.D. Center for the Study of Social Policy

LETTER FROM THE DIRECTOR

Dear Early Childhood Champions:

I am proud to share the inaugural **Prenatal-to-3 State Policy Roadmap**. Slightly over a year ago, my research team and I set out with a lofty goal of identifying the most effective state-level policies that bring to life the science of the developing child. We sought to create a Roadmap for state policy leaders to help them develop and implement the most effective policies that collectively strengthen the prenatal-to-3 (PN-3) system of care, and I am proud of the work we have accomplished thus far.

Through many conversations with state policy leaders and advocates, I learned that states are actively working to support children's early development by implementing policies and programs that enhance maternal and child health, foster parenting skills and family supports, strengthen early care environments, and promote greater equity in outcomes. However, state policy leaders, advocates, and funders often have little access to researchers who can help define where to start when prioritizing policies that promote strong and equitable systems of care. These leaders are seeking evidence from science and evaluation research to guide their policy development so that it is cost-effective, impactful, and reduces disparities in children's health and wellbeing.

The purpose of this **Prenatal-to-3 State Policy Roadmap** is to provide guidance to states as they build effective and equitable PN-3 systems of care for infants and toddlers and their parents. The Roadmap goes beyond showing states how their young children and families are currently doing relative to other states, and illustrates the steps states can take to help them do better. Guided by the science of the developing child and rigorous reviews of the research, the Roadmap identifies 11 effective solutions that states can implement to foster the conditions in which children thrive, and it monitors states' progress toward adopting and implementing these effective policies and strategies.

To develop this Roadmap, the *Prenatal-to-3 Policy Impact Center* first turned to the science of the developing child which points to eight policy goals that collectively foster longer-term optimal health and development for infants and toddlers. Although science continually evolves, the findings are clear that children need safe, stimulating, secure, and stable environments in their earliest years to promote life-long health and wellbeing.

Our charge was to provide direction to states on how to make those goals a reality. To this end, we conducted comprehensive reviews of rigorous research to identify the most effective state-level policies that foster the conditions in which children and families thrive and that reduce racial and ethnic disparities in opportunities and outcomes. As states implement and evaluate innovative approaches to serve infants and toddlers, the evidence base will continue to expand and provide more guidance on what states should do. Each year, this Roadmap will provide the most up-to-date information on what works, and how states are making progress toward their goals over time.

The COVID-19 pandemic has exposed how vulnerable we all are, and how fragile our health, economic, and social systems are. The crisis has also exposed the injustices of many of our public policies and systems of care, which have caused families of color to suffer disproportionately throughout this pandemic. Now is the time for states to rebuild their systems of care so that they create strong families, promote equity, and foster the health and wellbeing of infants and toddlers. Neglecting to do so at this crucial time will make it impossible for our economy to recover and families to thrive.

As stated previously, the science is clear with regard to the conditions necessary to help children thrive. Previously, states lacked clear guidance on which effective policies foster those conditions, and they didn't know where to start. Although the evidence base will continue to expand over time, the solutions have become more clear, and states can use this **Prenatal-to-3 State Policy Roadmap** to get to work building a solid prenatal-to-3 system of care and to track their progress over time.

Best,

CYNTHIA OSBORNE, Ph.D. The University of Texas at Austin Director, Prenatal-to-3 Policy Impact Center Associate Dean for Academic Strategies, LBJ School of Public Affairs

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
THE PRENATAL-TO-3 STATE POLICY ROADMAP	19
Our Earliest Experiences Shape Our Lives	20
Science Points to Eight Prenatal-to-3 Policy Goals	21
11 State Solutions Strengthen the Prenatal-to-3 System of Care	22
How Do We Determine Which Policies and Strategies Are Effective?	24
How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?	32
Outcomes Measure Progress Toward Policy Goals	35
Navigating the Prenatal-to-3 State Policy Roadmap	36
8 PRENATAL-TO-3 POLICY GOALS*	41
Why is each goal important?	
How are states currently meeting each goal?	
What are the most effective policies and strategies to impact each goal?	
What other solutions are states pursuing that can help build the evidence base?	
8 Prenatal-to-3 Policy Goals	
1. Access to Needed Services	42
2. Parents' Ability to Work	52
3. Sufficient Household Resources	60
4. Healthy and Equitable Births	71
5. Parental Health and Emotional Wellbeing	83
6. Nurturing and Responsive Child-Parent Relationships	93
7. Nurturing and Responsive Child Care in Safe Settings	102
8. Optimal Child Health and Development	117

What is each solution, and why is each solution important?
What impact does each solution have?
What do we still need to learn about each solution?
How do states vary based on their adoption and implementation of each solution?

5 Effective State Policies

1. Expanded Income Eligibility for Health Insurance	. 128
2. Reduced Administrative Burden for SNAP	. 139
3. Paid Family Leave	. 148
4. State Minimum Wage	. 156
5. State Earned Income Tax Credit	. 165

6 Effective State Strategies

1. Comprehensive Screening and Referral Programs	173
2. Child Care Subsidies	179
3. Group Prenatal Care	195
4. Evidence-Based Home Visiting Programs	202
5. Early Head Start	208
6. Early Intervention Services	215
STRENGTHENING THE PRENATAL-TO-3 SYSTEM OF CARE IN ALL STATES	
Effective Policies and Strategies Strengthen the Prenatal-to-3 System	225
No State Is Doing It All, But Many are Making Progress	228
Outcomes Vary for Infants and Toddlers Across States	234
Moving Forward	238
APPENDICES	239
References and Notes: Strong Causal Studies	240
References and Notes: Prenatal-to-3 Policy Goals	250
References and Notes: Policy and Strategy Profiles	256
Data Tables from Goal, Policy, Strategy Profiles	264

DATA TABLES AND FIGURES

PN-3 GOAL: ACCESS TO NEEDED SERVICES

Lack of Health Insurance45% of low-income women of childbearing age who do NOT have any health insurance coverage
Lack of Access to SNAP
Lack of Developmental Screenings

PN-3 GOAL: PARENTS' ABILITY TO WORK

Insecure Parental Employment	.54
% of children under age 3 living in a family in which NO parent has regular, full-time employment	

PN-3 GOAL: SUFFICIENT HOUSEHOLD RESOURCES

Child Poverty	
Crowded Housing	
Food Insecurity	

PN-3 GOAL: HEALTHY AND EQUITABLE BIRTHS

Preterm Births
.ow Birthweight
nfant Mortality Rate

PN-3 GOAL: PARENTAL HEALTH AND EMOTIONAL WELLBEING

Poor Maternal Mental Health	
Low Parenting Support	

PN-3 GOAL: NURTURING AND RESPONSIVE CHILD-PARENT RELATIONSHIPS

Lack of Daily Reading
Lack of Daily Nurturing Behaviors96% of children under age 3 whose family did NOT sing songs or tell stories to them every day during the prior week
Parenting Stress. 97 % of children under age 3 whose parent reports they are NOT coping "very well" with the demands of parenting

PN-3 GOAL: NURTURING AND RESPONSIVE CHILD CARE IN SAFE SETTINGS

Children With Access to EHS
Providers Participating in the State QRIS
State Ratio and Group Size Licensing Requirements for Center-Based Child Care. 110 Maximum number of infants allowed for one staff member to supervise in center-based care 110 Maximum group size for infants in center-based care 110 Maximum number of toddlers allowed for one staff member to supervise in center-based care 110 Maximum number of toddlers allowed for one staff member to supervise in center-based care 110 Maximum group size for toddlers in center-based care 110 Maximum group size for toddlers in center-based care 110
State Child Care Workforce Compensation and Assistance.114State has established guidelines or a plan for recommended early educator payment/benefit guidelines114State has a policy to provide a tax credit or stipend to supplement early educator pay114State has a policy provide a tax credit or stipend to supplement early educator pay114State has a policy providing a bonus to supplement early educator pay114State funds a scholarship program that supports higher educational attainment for early educators
PN-3 GOAL: OPTIMAL CHILD HEALTH AND DEVELOPMENT
Never Breastfed.119% of children ages 19 to 35 months whose mother reported NEVER breastfeeding
Not Fully Immunized

% of children ages 19 to 35 months who are NOT up to date on the combined 7-vaccine series	
Child Maltreatment	1
Number of unique maltreatment victims under age 3 per 1,000 children	

EFFECTIVE STATE POLICY: EXPANDED INCOME ELIGIBILITY FOR HEALTH INSURANCE

Medicaid Income Eligibility Requirements During the Perinatal Period129
Strong Causal Studies Show That Medicaid Expansion Impacts Five Prenatal-to-3 Policy Goals: Examples of Impact
Have States Adopted and Fully Implemented the Medicaid Expansion under the ACA?134
Medicaid Income Eligibility Limits for <u>Childless Adults</u> as a Percentage of the Federal Poverty Level
Medicaid Income Eligibility Limits for <u>Parents</u> as a Percentage of the Federal Poverty Level
Medicaid Income Eligibility Limits for <u>Pregnant Women</u> as a Percentage of the Federal Poverty Level
Lack of Health Insurance138% of low-income women of childbearing age who do NOT have any health insurance coverage

EFFECTIVE STATE POLICY: REDUCED ADMINISTRATIVE BURDEN FOR SNAP

Strong Causal Studies Show That Reduced Administrative Burden for SNAP Impacts Two Prenatal-to-3 Policy Goals: Examples of Impact14
Have States Adopted and Fully Implemented a Median Recertification Length of 12 Months or Longer, Among Households with SNAP-Eligible Children Under Age 18?
Length of Recertification Interval (Months) Among Households With SNAP-Eligible Children Under Age 1814
Lack of Access to SNAP

EFFECTIVE STATE POLICY: PAID FAMILY LEAVE

Strong Causal Studies Show that Paid Family Leave Impacts Six Prenatal-to-3 Policy Goals: Examples of Impact150
Have States Adopted and Fully Implemented a Paid Family Leave Program of a Minimum of 6 Weeks?153
State Variation in Paid Family Leave: Number of Weeks, Benefit Value, and Benefit Timeline

EFFECTIVE STATE POLICY: STATE MINIMUM WAGE

Strong Causal Studies Show That a State Minimum Wage of \$10 or Greater Impacts Four Prenatal-to-3 Policy Goals: Examples of Impact	.158
Have States Adopted and Fully Implemented a Minimum Wage of \$10 or Greater?	. 161
State Hourly Minimum Wage (Nominal Minimum Wage)	. 162
COLA State Hourly Minimum Wage (Adjusted for Cost of Living)	. 163
Earning Less Than \$10 per Hour. % of parents with children under age 3 earning less than \$10 per hour	.164

EFFECTIVE STATE POLICY: STATE EARNED INCOME TAX CREDIT

Strong Causal Studies Show That a Refundable State EITC of at Least 10% of the Federal EITC	
Impacts Three Prenatal-to-3 Policy Goals: Examples of Impact	7
Have States Adopted and Fully Implemented a Refundable EITC of at Least 10% of the Federal EITC?)
Percent of Federal EITC by EITC Status	1
Lack of Federal EITC Take-Up	2
% of eligible tax filers who do NOT claim the federal EITC	

EFFECTIVE STATE STRATEGY: COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS

Strong Causal Studies Show That Comprehensive Screening and Referral Programs Impact Two Prenatal-to-3 Policy Goals: Examples of Impact	175
Have States Made Substantial Progress Toward Implementing Both Evidence-Based Comprehensive Screening	
and Referral Programs: Family Connects and Healthy Steps?	178

EFFECTIVE STATE STRATEGY: CHILD CARE SUBSIDIES

Strong Causal Studies Show That Child Care Subsidies Impact Three Prenatal-to-3 Policy Goals:	
Examples of Impact	1
Have States Made Substantial Progress Toward Implementing Child Care Subsidies?	4
Are States' Current Base Reimbursement Rates at or Above the 75th Percentile of the Market Rate?	5
Child Care Subsidy Income Eligibility as a Percentage of the Federal Poverty Level	7
Base Reimbursement Rates for Infants in Center-Based Care	9
Monthly Copayment Rate as a Percentage of Income for a Family of 3 at 150% of the Federal Poverty Level19	1
Distribution of the Total Cost of Child Care by State	3
Status of State QRIS Participation and Reimbursement Based on Higher Quality Standards	4

EFFECTIVE STATE STRATEGY: GROUP PRENATAL CARE

Strong Causal Studies Show That Group Prenatal Care Impacts Four Prenatal-to-3 Policy Goals:	
Examples of Impact	.197
Have States Made Substantial Progress Toward Implementing Group Prenatal Care?	200
Lack of Prenatal Care	201
% of women who do NOT receive adequate prenatal care	

EFFECTIVE STATE STRATEGY: EVIDENCE-BASED HOME VISITING PROGRAMS

Strong Causal Studies Show That Evidence-Based Home Visiting Programs	
Impact One Prenatal-to-3 Policy Goal: Examples of Impact.	203
Have States Made Substantial Progress Toward Implementing Evidence-Based Home Visiting Programs?	206
Children Served by Home Visiting	207
Estimated % of eligible children under age 3 served by home visiting programs	

EFFECTIVE STATE STRATEGY: EARLY HEAD START

Strong Causal Studies Show That Early Head Start Impacts Three Prenatal-to-3 Policy Goals:	
Examples of Impact	.210
Have States Made Substantial Progress Toward Implementing Early Head Start?	.213
Children With Access to EHS.	.214
Estimated % of income-eligible children under age 3 with access to Early Head Start	

EFFECTIVE STATE STRATEGY: EARLY INTERVENTION SERVICES

Strong Causal Studies Show That Early Intervention Services Impact Two Prenatal-to-3 Policy Goals:
Examples of Impact
Have States Made Substantial Progress Toward Implementing Early Intervention Services?
Criteria Used to Determine Eligibility for Early Intervention Services in States With Broad Eligibility Criteria22
Criteria Used to Determine Eligibility for Early Intervention Services in States With Moderate Eligibility Criteria22
Criteria Used to Determine Eligibility for Early Intervention Services in States With <u>Narrow</u> Eligibility Criteria22
Children Receiving Early Intervention Services 224 % of all children under age 3 receiving Early Intervention services

This Prenatal-to-3 State Policy Roadmap is a guide state leaders can use to develop and implement the most effective policies to strengthen their state's prenatal-to-3 (PN-3) system of care. The prenatal-to-3 period of development sets the foundation for all future health and wellbeing. The science of the developing child is clear: Infants and toddlers need loving, stimulating, stable, and secure care environments with limited exposure to adversity. However, to date states have lacked clear guidance on how to effectively promote the environments in which children thrive.

This inaugural Roadmap provides baseline information on the current status of each state's prenatal-to-3 system and will be updated annually to monitor:

- states' progress toward adopting and fully implementing the effective policies and strategies;
- · changes in the generosity of state benefits;
- progress toward serving all children and families who are eligible for state benefits;
- · changes in the overall wellbeing of children and families in each state; and
- efforts to reduce racial and ethnic disparities in outcomes.

Findings from the baseline analysis show that states need to strengthen their PN-3 systems of care. States vary considerably in the number of effective policies and strategies they implement, and families across the US have disparate access to a patchwork of benefits and services, despite having similar needs. The results also show that access to services varies substantially across racial and ethnic groups, exacerbating inequities in overall wellbeing between children of color and their White peers. These racial and ethnic disparities are the result of policy choices and long-standing racism, and eliminating the disparities should be a goal shared by every state.

11 STATE SOLUTIONS STRENGTHEN THE PRENATAL-TO-3 SYSTEM OF CARE

Through comprehensive reviews of the most rigorous evidence available, the Prenatal-to-3 Policy Impact Center at the University of Texas at Austin identified 11 effective solutions, including five effective policies and six effective strategies, that foster the nurturing environments infants and toddlers need and many of which, reduce longstanding disparities in outcomes among racial and ethnic groups and socioeconomic statuses. As the evidence base grows and more information becomes available, the list of effective policies and strategies will expand, and additional information on the return on investment of each effective solution will be provided. Currently, states should strive to fully implement the 11 PN-3 solutions with the strongest evidence of effectiveness to date.

Effective Solutions to Strengthen the Prenatal-to-3 System of Care

Ν

EFFECTIVE POLICIES: impact PN-3 goals, and research provides clear legislative or regulatory action.	
Expanded Income Eligibility for Health Insurance	State has adopted and fully implemented the Medicaid expansion under the ACA that includes coverage for most adults with incomes up to 138% of the federal poverty level.
Reduced Administrative Burden for SNAP	State's median recertification interval is 12 months or longer among households with SNAP-eligible children under age 18.
Paid Family Leave	State has adopted and fully implemented a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care.
State Minimum Wage	State has adopted and fully implemented a minimum wage of \$10 or greater.
State Earned Income Tax Credit	State has adopted and fully implemented a refundable EITC of at least 10% of the federal EITC for all eligible families with any children under age 3.

EFFECTIVE STRA	TEGIES: have demonstrated impacts on PN-3 goals, but research provides no clear guidance for legislative action.					
Comprehensive Screening and Referral Programs	State has both evidence-based comprehensive screening and referral programs: Family Connects and Healthy Steps.					
Child Care Subsidies	State base reimbursement rates (for infants and toddlers in center-based care and family child care) meet the federally recommended 75th percentile using a recent market rate survey.					
Group Prenatal Care	State supports the implementation of group prenatal care financially through enhanced reimbursements for group prenatal care providers.					
Evidence-Based Home Visiting Programs	State supplements federal funding, and the estimated percentage of eligible children served by home visiting is at or above the median state value (7.3%).					
Early Head Start	State supplements federal funding, and the estimated percentage of income-eligible children with access to EHS is at or above the median state value (8.9%).					
Early Intervention Services	State has moderate or broad criteria to determine eligibility and serves children who are at risk for later delays or disabilities.					

The Prenatal-to-3 State Policy Roadmap provides states with the information they need to:

Prioritize SCIENCE-BASED POLICY GOALS

to promote optimal health and development of infants and toddlers

8 comprehensive prenatal-to-3 (PN-3) policy goals driven by the science of the developing child set the direction for each state to ensure infants and toddlers get off to a healthy start and thrive.

Adopt and implement EFFECTIVE POLICIES & STRATEGIES to improve PN-3 goals and outcomes

5 state-level policies and 6 strategies positively impact at least one of these PN-3 goals, based on comprehensive reviews of rigorous policy research. Our goal is to continually expand the evidence base by evaluating and sharing the innovative approaches that states are implementing to positively impact child and family wellbeing. The 11 policies and strategies included in this State Policy Roadmap are not the only effective solutions that strengthen the prenatal-to-3 period, but they are the solutions with the strongest evidence of effectiveness, to date.

Monitor PROGRESS toward adoption & implementation of effective solutions

Effective solutions are not implemented similarly across all states, leaving children and families across the US with a patchwork of benefits and unequal outcomes. Monitor state progress toward adopting and implementing effective solutions that serve all eligible children and families.

Track OUTCOMES TO MEASURE IMPACT

on optimal health and development of infants and toddlers

20 child and family outcome measures illustrate the health, resources, and wellbeing of infants, toddlers, and their parents in states, and reveal progress toward achieving the 8 PN-3 goals.

k

Explore your state's interactive data at **pn3policy.org/interactive**.

SCIENCE-DRIVEN PRENATAL-TO-3 POLICY GOALS PROMOTE OPTIMAL CHILD HEALTH AND DEVELOPMENT

The science of the developing child points to eight prenatal-to-3 policy goals that all states should strive to achieve to ensure that children are born healthy to healthy parents, that parents have the skills and resources they need to be the parents their children deserve, and that when children are not with their parents, they are in high-quality, nurturing care environments. Detailed information on each of the PN-3 goals is available in the Goal Profiles section of this Roadmap, along with information on state progress toward meeting the goals.





Access

to Needed

Services

Parents have the skills and incentives for employment and the resources they need to balance working and parenting.

Sufficient Household Resources

> and Equitable Births

Parents have the financial and material resources they need to provide for their families.

Children are born healthy to healthy parents, and pregnancy experiences and birth outcomes are equitable.



Parents are mentally and physically healthy, with particular attention paid to the perinatal period.



Children experience warm, nurturing, stimulating interactions with their parents that promote healthy development.



When children are not with their parents, they are in high-quality, nurturing, and safe environments.



Children's emotional, physical, and cognitive development is on track, and delays are identified and addressed early.

EFFECTIVE POLICIES AND STRATEGIES STRENGTHEN THE PRENATAL-TO-3 SYSTEM

The following Roadmap chart identifies the effective policies and strategies that positively impact each PN-3 goal. Some policies and strategies impact multiple goals. For example, implementation of a state minimum wage can help a state work toward four different policy goals: sufficient household resources, healthy and equitable births, parental health and emotional wellbeing, and optimal child health and development. At the same time, a single goal may be impacted by several policies and strategies. For example, states that want to increase sufficient household resources can look to five policies (expanded income eligibility for health insurance, reduced administrative burden for SNAP, paid family leave, state minimum wage, and state EITC) and one strategy (child care subsidies) to help them achieve this goal.

In the Roadmap chart, each goal is represented in a column, and the circles in the columns align with the policies and strategies that impact the goals. This chart helps each state select the policies and strategies that directly impact the state's PN-3 Goals.

Prenatal-to-3 State Policy Roadmap

Effective policies impact PN-3 goals and research provides clear legislative Policy/strategy is aligned with goal in column or regulatory action. Effective strategies have demonstrated impacts on PN-3 goals, but research provides no clear guidance for legislative action. Policy/strategy does not align with goal in column (intentionally blank) GOALS Nurturing Nurturing Access Parents' Sufficient Healthy Parental Health **Optimal Child** and Responsive and Responsive To achieve a and Equitable Births Health and Development Ability to Work and Emotional Wellbeing to Needed Household Child-Parent Relationships Child Care in science-driven Services Resources Safe Settings PN-3 goal: POLICIES Adopt and fully implement the effective policies aligned with the goal Expanded Income Eligibility for Health Insurance Reduced Administrative Burden for SNAP Paid Family Leave State Minimum Wage State Earned Income Tax Credit **STRATEGIES** Make substantial progress relative to other states toward implementing the effective strategies aligned with the goal Comprehensive Screening and Referral Programs Child Care Subsidies Group Prenatal Care Evidence-Based Home Visiting Programs Early Head Start Early Intervention Services Health Insurance Access to SNAP Developmental Screenings Child Poverty rowded Housin Preterm Births Low Birthweight Infant Mortality Child Care Providers Participating in QRIS Breastfeeding OUTCOMES Parental Employment Maternal Mental Health Food Insecurity Child Maltreatment Measure progress Parenting Support toward achieving the PN-3 goal

5

Policies and Strategies Differ

In this Roadmap, we define policies as having clear legislative or regulatory action, based on research gleaned through comprehensive reviews of rigorous evidence. For example, evidence shows that a paid family leave program needs to provide a minimum of 6 weeks of paid time off to reap the impacts demonstrated in strong causal studies; therefore, the policy is defined accordingly. By contrast, the evidence on effective strategies does not provide clear legislative guidance on how to fund or implement the strategy to garner the impacts at a statewide level that were demonstrated in studies. For example, rigorous research shows that Early Intervention services positively impact children's outcomes, but the research does not provide guidance on what level of state investment is needed to ensure that all children who need the services receive them or that the outcomes are achieved. For strategies, progress toward implementation is measured relative to other states, rather than against an absolute standard.

Prenatal-to-3 Policies Have a Big Impact

The impact that some of the policies have on outcomes associated with the PN-3 goals is quite substantial and direct. For example, expanding income eligibility for health insurance to most adults with low incomes increases women's access to Medicaid prior to conception by 8.6 percentage points. Moreover, a 10% increase in a state's minimum wage reduces poverty for children under age 6 by 9.6%.

Some policies also have indirect effects that are substantial and somewhat surprising. For example, a policy aimed at increasing household resources—the state EITC—not only increases earnings, but is also more effective at reducing racial and ethnic disparities in adverse birth outcomes than is group prenatal care, a program directly designed to improve birth outcomes.

Most policies and strategies impact more than one PN-3 goal, but paid family leave and expanded income eligibility for health insurance are the most broadly effective, impacting six and five goals, respectively. These two policies not only provide children and families with access to services and greater resources within their households, but they also promote better parental health and child wellbeing.

More detailed information on each of the policies and strategies is available in the Policy Profile section of this Roadmap and at the Prenatal-to-3 Policy Clearinghouse at <u>pn3policy.org</u>.

We Still Need to Learn More, Especially About Quality Child Care

As more rigorous evaluations are conducted on the innovative approaches that states are taking to improve the wellbeing of infants and toddlers, the evidence base will expand, and we will identify additional policies and strategies that positively impact the PN-3 goals. Learning more about how to enhance nurturing and affordable child care for infants and toddlers should be a priority for the field. To date, most of the research conducted has focused on 3- and 4-year-old children in prekindergarten settings, rather than on infants and toddlers. Yet, even the existing research on preschoolers provides insufficient guidance to states on how to support high-quality, affordable child care that improves child outcomes.

NO STATE IS DOING IT ALL, BUT MANY ARE MAKING PROGRESS

Currently, only three states—California, the District of Columbia, and New Jersey—are fully implementing all five effective policies, and no state is making substantial progress toward implementing all six effective strategies.

Seven states have not fully implemented <u>any</u> effective policies—Florida, Georgia, Mississippi, North Carolina, South Carolina, Texas, and Wyoming—and 15 states have not made substantial progress toward implementing any of the effective strategies.

Three states—Florida, Mississippi, and Wyoming—have not fully implemented any of the 11 effective solutions that strengthen the prenatal-to-3 system of care.

Over time, we will track every state's adoption and implementation of these policies and strategies, with the goal of each state implementing all 11. The figure below shows the distribution of policy implementation among states.



Some states have adopted a policy, but they have not fully implemented it, or they do not provide the level of benefit, indicated by the evidence reviews, necessary to impact the PN-3 goal. Additionally, many states have implemented aspects of the effective strategies, but states are assessed relative to one another on making substantial progress.

Policy Variation Across States

Have states adopted and fully implemented the effective policies?

EFFECTIVE POLICIES

Expanded Income Eligibility for Health Insurance

37 states have adopted and fully implemented the Medicaid expansion under the Affordable Care Act (ACA) that includes coverage for most adults with incomes up to 138% of the federal poverty level (FPL).



Sources: As of October 1, 2020. Medicaid state plan amendments (SPAs) and Section 1115 waivers.

Paid Family Leave

5 states have adopted and fully implemented a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care.



Sources: As of October 1, 2020. State statutes and legislation on paid family leave.

Reduced Administrative Burden for SNAP

32 states have a median recertification interval that is 12 months or longer among households with SNAP-eligible children under age 18.



Sources: As of 2018. United States Department of Agriculture (USDA) Fiscal Year 2018 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel.

State Minimum Wage

19 states have adopted and fully implemented a minimum wage of \$10 or greater.



Sources: As of October 1, 2020. State labor statutes and state labor department websites.

Policy Variation Across States (continued)

Have states adopted and fully implemented the effective policies?

EFFECTIVE POLICIES

State Earned Income Tax Credit

18 states have adopted and fully implemented a refundable EITC of at least 10% of the federal EITC for all eligible families with any children under age 3.



Note: Some states in the "no" category for Policy Variation Across States have adopted a policy, but they have not fully implemented it, or they do not provide the level of benefit, indicated by the evidence reviews, necessary to impact the PN-3 goal. For additional information see.pn3policy.org.

Sources: As of October 1, 2020. State income tax statutes.



Strategy Variation Across States

Have states made substantial progress relative to other states toward implementing the effective strategies?

EFFECTIVE STRATEGIES

Comprehensive Screening and Referral Programs

8 states have both evidence-based comprehensive screening and referral programs: Family Connects and Healthy Steps.



Sources: As of June 12, 2020. Family Connects and Healthy Steps national websites.

Group Prenatal Care

10 states support the implementation of group prenatal care financially through enhanced reimbursements for group prenatal care providers.



Sources: As of June 8, 2020. State health department websites and proposed and passed state legislation.

Child Care Subsidies

1 state's base reimbursement rates (for infants and toddlers in center-based care and family child care) meet the federally recommended 75th percentile using a recent market rate survey.



Sources: As of July, 12020. State children and families' department websites and state market rate surveys.

Evidence-Based Home Visiting Programs

23 states have supplemented federal funding, and the estimated percentage of eligible children served by home visiting is at or above the median state value (7.3%).



Sources: As of June 11, 2020. National Home Visiting Resource Center. Home Visiting Evidence of Effectiveness. National Conferences of State Legislatures (NCSL) FY19 state budget survey. State statutes and adopted FY19 budgets. 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS).

Strategy Variation Across States (continued)

Have states made substantial progress relative to other states toward implementing the effective strategies?

EFFECTIVE STRATEGIES

Early Head Start

7 states supplement federal funding, and the estimated percentage of income-eligible children with access to EHS is at or above the median state value (8.9%).



Sources: As of 2020. National Head Start Association report, confirmation emails and phone calls from state EHS experts, 2019 Early Head Start (EHS) Program Information Report (PIR), and 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS).

Early Intervention Services

5 states have moderate or broad criteria to determine eligibility and serve children who are at risk for later delays or disabilities.



Sources: As of June 2020. IDEA Infant and Toddler Coordinators Association 2018, state regulations retrieved from state legal statutes, health department regulations, and Early Intervention program websites.

Note: Many states in the "no" category for Strategy Variation Across States have implemented aspects of the effective strategies, but states are assessed relative to one another on making substantial progress. For additional information see_ pn3policy.org.

Policy Adoption and Implementation Take Time

Policy adoption does not typically happen quickly. States may introduce legislation several times before adopting a policy and take even more time to fully implement it. We tracked states' progress toward fully implementing each of the five effective policies and making substantial progress relative to other states toward implementing the six effective strategies. This information shows states where they stand relative to other states with regard to building an effective and equitable PN-3 system of care, and over time, this information also will demonstrate the progress states have made. The figures below show the progress states have made to date toward adopting and fully implementing each effective policy and toward making substantial progress relative to other states in implementing the effective strategies.

More detailed information on each of the policies and strategies is available in the Policy Profile section of this Roadmap and in the Prenatal-to-3 Policy Clearinghouse at <u>pn3policy.org</u>.

Have states adopted and fully implemented the effective policies?

	NO			SOME PROGRESS			YES				
Policies	0	1	2	3	4	5	6	7	8	9	10
Expanded Income Eligibility for Health Insurance	5 states	4 states		3 states			2 states	3 states	4 states	28 states	2 states
Reduced Administrative Burden for SNAP	12 states					7 states		1 state	10 states	21 states	
Paid Family Leave		29 states		1 state	12 states	1 state	3 states				5 states
State Minimum Wage	9 states	2 states		10 states	3 states	4 states	4 states		1 state		18 states
State Earned Income Tax Credit	9 states	8 states		2 states	3 states	6 states	5 states	1 state	5 states		12 states

Have states made substantial progress relative to other states toward implementing the effective strategies?

	LITTLE TO NO PROGRESS			sc	ME PROGRE	SS	SUBSTANTIAL PROGRESS				
Strategies	1	2	3	4	5	6	7	8	9	10	
Comprehensive Screening and Referral Programs	21 states		5 states		14 states	3 states	7 states		1 state		
Child Care Subsidies	21 states		20 states		9 states		1 state				
Group Prenatal Care	16 states		11 states	1 state	9 states	4 states	2 states		8 states		
Evidence-Based Home Visiting	10 states		3 states		15 states		18 states		5 states		
Early Head Start	23 states		15 states	4 states	2 states		7 states				
Early Intervention Services	16 states			14 states		16 states	4 states		1 state		

Benefits and Services Vary Considerably Across States

The Policy Profile section of this Roadmap provides additional information on the variation across states in the generosity of the benefit levels associated with each policy and strategy, as well as variation in the percentage of eligible families who are served. Generosity and the percentage of eligible families served vary considerably, such that families with similar needs may receive substantially different services based on where they live.

For example, in Texas, parents must have annual incomes that are at or below 17% of the federal poverty level (FPL) to be eligible for Medicaid, whereas in the District of Columbia, parents with incomes up to 221% of the FPL qualify for Medicaid. This difference in generosity is linked to a large disparity in the percentage of low-income women of childbearing age who have access to health care; in Texas, nearly half (47.7%) of low-income women lack health insurance, compared to only 6.4% of low-income women who lack health insurance in the District of Columbia.

Early Intervention (EI) services provide another example of large variation in benefits and services across states. States differ considerably in the criteria they use to determine whether an infant or toddler is eligible for these important services that are designed to address developmental delays and disabilities. The percentage of children under age 3 who receive EI services also varies widely across states, from a low of 0.9% in Arkansas to a high of 10.1% in Massachusetts.

OUTCOMES VARY FOR INFANTS AND TODDLERS ACROSS STATES

The purpose of states' implementing effective PN-3 solutions is to improve the wellbeing of infants, toddlers, and their parents, and to reduce long-standing disparities in outcomes by race and ethnicity. This Roadmap provides information on how children and families are faring on 20 outcome measures that depict states' progress toward achieving each PN-3 goal. Each of the outcome measures is intentionally calculated in the negative direction to demonstrate where states have room for improvement and to help states prioritize PN-3 policy goals for which progress is lagging.

The results show that there is wide variation across states in the wellbeing of children and families. For example, 14.2% of babies are born preterm (prior to 37 weeks of gestation) in Mississippi (the lowest ranked state), compared to 7.8% of babies in Oregon (the highest ranked state). Similarly, the proportion of children under age 3 who live in poverty in Mississippi (the worst state on this outcome) is 30.8% compared to 10.4% in Utah (the best state on this outcome); but even in the best state, 1 in 10 children lives in poverty. Maternal mental health varies as well, with 10.2% of children under age 3 in Vermont (the worst state) living with a mother who has poor mental health compared to only 1.2% in New Jersey (the best state).

Racial and Ethnic Disparities in Outcomes Persist

In addition to PN-3 outcomes varying across states, the outcomes also differ substantially by race and ethnicity. The sample sizes are too small in most national data sets to measure racial and ethnic differences on each outcome within a state, but state-level variation in outcomes mirrors the racial and ethnic disparities revealed at the US level. On measure after measure, children of color are exposed to greater adversity and experience poorer wellbeing than their White counterparts. These gaps reflect state policy choices and long-standing discrimination, and states should strive to eradicate these differences.

Prenatal-to-3 Outcomes to Measure Impact

Goal: Access to Needed Services

Lack of Health Insurance

% low-income women of childbearing age who do NOT have any health insurance coverage



Lack of Access to SNAP

% eligible families with children <18 NOT receiving SNAP



Lack of Developmental Screenings

% children <3 NOT receiving developmental screenings



Goal: Parents' Ability to Work

Insecure Parental Employment

% children <3 in families in which NO parent has regular, full-time employment



A Note on Data Quality:

For the majority of measures, it is not possible to present differences by race and ethnicity at the state level due to small sample sizes and subsequent poor data accuracy and quality. For additional information regarding state-level variation in outcomes, calculation details, data quality, and source data please refer to the Methods and Sources section of pn3policy.org.

Goal: Sufficient Household Resources

Child Poverty

% children <3 living in poverty



Crowded Housing

% children <3 living in crowded households



Food Insecurity

% households with at least one child <3 reporting low/very low child food security



Goal: Healthy and Equitable Births

Preterm Births





Infant Mortality Rate

of infant deaths per 1,000 births



Goal: Parental Health and Emotional Wellbeing

Poor Maternal Mental Health

% children <3 whose mother reports fair or poor mental/emotional health



Low Parenting Support

% children <3 whose parent lacks emotional parenting support



Goal: Nurturing and Responsive Child-Parent Relationships

Lack of Daily Reading

% children <3 not read to daily



Lack of Daily Nurturing Behaviors

% children <3 not nurtured daily



Parenting Stress

% children <3 whose parent reports they are not coping very well with parenting demands



Goal: Nurturing and Responsive Child Care in Safe Settings

Child Care Providers Not Participating in QRIS

% child care providers NOT participating in state QRIS

98.5% 49.4% 0.0% Worst state Median state Best state Percent of Children Without Access to EHS % income-eligible children <3 without access to Early Head Start 96.5% 91.1% 74.0%

96.5% • 74.0% Worst state Median state Best state

Goal: Optimal Child Health and Development

Never Breastfed

% children 19-35 months of age whose mother reported NEVER breastfeeding



Not Fully Immunized

% children 19-35 months who are NOT up-to-date on immunizations



Child Maltreatment Rate

of unique maltreatment victims per 1,000 children <3





Use This Roadmap to Know Where You Are and Where You Need to Go

The outcome measures help states prioritize which PN-3 goal state leaders should target first and, therefore, which effective policy or strategy they should implement to improve the corresponding outcomes. The outcome measures may be lagging even within states that have adopted or implemented the effective solutions, because the level of benefits the state offers is less generous than other states or a large portion of families who are eligible for the benefit are not receiving it.

If your state is lagging on a particular outcome or PN-3 goal, answering the following questions will help to build a stronger and more equitable prenatal-to-3 system of care in your state:

- Has my state adopted and fully implemented the effective policies and effective strategies that positively impact the PN-3 goal?
- If not, what progress has my state made toward adoption and implementation?
- Are my state's benefits for the policy or strategy as generous as those in other states?
- Are all eligible families in my state receiving the benefits they need?

The Prenatal-to-3 State Policy Roadmap helps your state answer these questions and more. For additional information, see <u>pn3policy.org</u>.

MOVING FORWARD

This Roadmap provides baseline information to states to help state leaders understand not only how they are doing, but how they can do better. The Prenatal-to-3 Policy Impact Center at the University of Texas at Austin will update this Roadmap annually to track state progress on policy adoption, generosity, and implementation. We also will measure improvements in the overall wellbeing of infants, toddlers, and parents in each state, in addition to whether states are closing racial and ethnic gaps in wellbeing. In the wake of the COVID-19 pandemic, national data that measure the health and wellbeing of children and families is extremely important, but unfortunately, due to time lags in data collection and availability, we will not have a clear picture of the impact of the pandemic on babies and parents for years to come. What can be measured in the short term is states' policy reactions to the crisis, and how they implement effective policies to help build strong and equitable prenatal-to-3 systems of care.

The next Roadmap also will dive deeper into understanding the return on investment of each policy and strategy. Lawmakers not only want to know if a policy works, but also how much it costs and how to pay for it. Some of this information is provided in this Roadmap, and more is provided in the Prenatal-to-3 Policy Clearinghouse at pn3policy.org, but we plan to conduct more rigorous analyses of the costs and measurable benefits associated with each effective solution, to answer these questions more fully.

As stated previously, the science is clear with regard to the conditions necessary to help children thrive. Previously, states lacked clear guidance on which effective policies foster those conditions, and they didn't know where to start. Although the evidence base will continue to expand over time, the solutions are clearer, and states can use this Prenatal-to-3 State Policy Roadmap to get to work building a solid prenatal-to-3 system of care.

R

Sign up for news and updates at pn3policy.org/subscribe

THE PRENATAL-TO-3 STATE POLICY ROADMAP

The period from prenatal development to age 3 (PN-3) sets the foundation for all future health and wellbeing. The science is clear: Infants and toddlers need loving, stimulating, stable, and secure care environments, with limited exposure to adversity. Yet this period is often challenging for parents, and families can benefit from a strong early childhood system of care to help their children thrive.

This Prenatal-to-3 State Policy Roadmap provides a framework and guide that states can use to strengthen their PN-3 systems of care. Driven by the science of the developing child, grounded in rigorous evidence, and committed to promoting equity, this Roadmap illustrates the PN-3 policy goals states should strive to achieve, identifies the most effective policies and strategies that impact these policy goals, and provides information on state progress toward implementing effective solutions and improving the wellbeing of infants, toddlers, and parents.

A Roadmap to Strengthen the Prenatal-to-3 System



to promote optimal health and development of infants and toddlers

8 comprehensive prenatal-to-3 (PN-3) policy goals driven by the science of the developing child set the direction for each state to ensure infants and toddlers get off to a healthy start and thrive.

Adopt and implement EFFECTIVE POLICIES & STRATEGIES to improve PN-3 goals and outcomes

5 state-level policies and 6 strategies positively impact at least one of these PN-3 goals, based on comprehensive reviews of rigorous policy research. Our goal is to continually expand the evidence base by evaluating and sharing the innovative approaches that states are implementing to positively impact child and family wellbeing. The 11 policies and strategies included in this State Policy Roadmap are not the only effective solutions that strengthen the prenatal-to-3 period, but they are the solutions with the strongest evidence of effectiveness, to date.

Monitor PROGRESS toward adoption & implementation of effective solutions

Effective solutions are not implemented similarly across all states, leaving children and families across the US with a patchwork of benefits and unequal outcomes. Monitor state progress toward adopting and implementing effective solutions that serve all eligible children and families.



Track OUTCOMES TO MEASURE IMPACT on optimal health and development of infants and toddlers

20 child and family outcome measures illustrate the health, resources, and wellbeing of infants, toddlers, and their parents in states, and reveal progress toward achieving the 8 PN-3 goals.



Prioritize SCIENCE-BASED POLICY GOALS

to promote optimal health and development of infants and toddlers

8 comprehensive prenatal-to-3 (PN-3) policy goals driven by the science of the developing child set the direction for each state to ensure infants and toddlers get off to a healthy start and thrive.

OUR EARLIEST EXPERIENCES SHAPE OUR LIVES

The science is clear that our earliest experiences have lifelong consequences for our health and behaviors.¹ Scientists studying neuroscience, epigenetics, endocrinology, inflammatory disorders, and other physiological systems clearly demonstrate that our earliest environments shape the developing brain, influence the expression of our genes, and affect the health of our body's systems.^{2,3}

Safe, stable, stimulating, loving interactions between an infant and a parent or caregiver promote optimal brain and body development in the first three years.⁴ Parents who have sufficient financial resources, social connections, limited stress, and good physical and mental health are in a better position to meet the substantial challenges that parenting brings, than are parents who struggle to make ends meet, feel isolated or overwhelmed, or have poor mental health.^{5.6.7}

Too many infants and toddlers do not experience the nurturing and responsive environments that positively shape developing brains and bodies, and instead are exposed to early adversity that inhibits optimal growth. Having a parent with severe depression, being exposed to violence in your home or neighborhood, moving from house to house without a place to call home, going without enough to eat for days at a time—these examples of early adversity are far too common among our youngest children, and they disproportionately affect our children of color and children whose parents have lower levels of education or income.⁸ Although children are incredibly resilient, exposure to chronic stressors early in life sets a path that is difficult to climb and can be costly for society to support.⁹



SCIENCE POINTS TO EIGHT PRENATAL-TO-3 POLICY GOALS

The science of the developing child points to eight goals that provide guidance to policy leaders on how best to ensure that children get off to a healthy start and are on a path toward optimal health and development:



Families have access to necessary services through expanded eligibility, reduced administrative burden, and identification of needs and connection to services.

Parents have the skills and incentives for employment and the resources they need to balance working and parenting.

Parents have the financial and material resources they need to provide for their families.

Children are born healthy to healthy parents, and pregnancy experiences and birth outcomes are equitable.



Parents are mentally and physically healthy, with particular attention paid to the perinatal period.



Children experience warm, nurturing, stimulating interactions with their parents that promote healthy development.



When children are not with their parents, they are in high-quality, nurturing, and safe environments.



Children's emotional, physical, and cognitive development is on track, and delays are identified and addressed early.

Some of these policy goals focus on the resources and skills that parents need to provide healthy, stable, and safe environments for their infants and toddlers. Other goals focus on the institutions that serve our children and families, from our social service institutions to our child care systems. Our public investments should be effective and promote positive, equitable, and sustainable outcomes for children and their parents. And some of these goals focus on infants and toddlers directly. Through policy, we can help to support children's health from birth and intervene quickly if developmental delays or other needs are identified.

Ultimately, states need to realize all eight policy goals to foster a robust, comprehensive PN-3 system of care. Too frequently, issues regarding early childhood are considered to be only in the domain of early care and education or parenting programs that often are siloed from and not well connected to other systems. Yet a comprehensive PN-3 system of policies and programs ensures that children are born healthy to healthy parents, parents have the skills and resources they need to create the nurturing environments their children need, and when children are not with their parents, they are in nurturing, safe care environments. Undergirding all of these aims is the goal of a more equitable system that eliminates long-standing disparities in access and outcomes based on race, ethnicity, and socioeconomic status.



Adopt and implement EFFECTIVE POLICIES & STRATEGIES to improve PN-3 goals and outcomes

5 state-level policies and 6 strategies positively impact at least one of these PN-3 goals, based on comprehensive reviews of rigorous policy research. Our goal is to continually expand the evidence base by evaluating and sharing the innovative approaches that states are implementing to positively impact child and family wellbeing. The 11 policies and strategies included in this State Policy Roadmap are not the only effective solutions that strengthen the prenatal-to-3 period, but they are the solutions with the strongest evidence of effectiveness, to date.

11 STATE SOLUTIONS STRENGTHEN THE PRENATAL-TO-3 SYSTEM OF CARE

Our public policy choices influence whether children get off to a strong start or whether they and their parents struggle. Policies can promote healthier birth outcomes and ensure that parents have the resources and skills they need to be the parents they aspire to be. When children are not with their parents, policies can shape nurturing and high-quality care environments for our youngest children. Policy choices also can promote equity across racial and ethnic groups and between families of different socioeconomic statuses, but we must be intentional in choosing policies that reduce, rather than perpetuate or exacerbate, disparities in outcomes.

The science of the developing child is clear—we know what infants and toddlers need to thrive. The solutions, however, are not. State policy leaders have come to trust the science and know that investing in our infants and toddlers is critical, but leaders have lacked clear guidance on where to begin.

Our team of researchers and nonpartisan policy experts developed a nine-step process to conduct comprehensive reviews of existing evaluation research to identify the most effective state-level policies that create the conditions that enable children and families to thrive. The evidence base will continue to expand as more rigorous evaluations of innovative state initiatives are conducted. To date, however, the results from our reviews of rigorous studies have identified **five effective policies** and **six effective strategies** that states should implement to build a robust and more equitable prenatal-to-3 system of care.

Policies Versus Strategies in This Roadmap

Policies have been studied at the state level, and the evidence points to clear legislative or regulatory action that states can take to implement the policy and achieve better outcomes. By contrast, state-level strategies are effective programs or approaches that states have implemented, but research has not evaluated the strategy at a statewide level, and evidence does not provide clear guidance on how states should fund or implement the strategy to ensure that the impacts that were found in rigorous studies are replicated statewide. Progress toward state implementation of strategies is measured relative to other states, rather than based on progress toward a specific policy action. Over time, as the evidence base grows, the goal is to transition all effective strategies to effective policies.

A brief description of each of the effective policies and strategies is provided below, and detailed information on each policy and strategy is provided in the Policy Profile section of this Roadmap and at the Prenatal-to-3 Policy Clearinghouse at pn3policy.org.

Effective Solutions to Strengthen the Prenatal-to-3 System of Care

EFFECTIVE POLI	CIES: impact PN-3 goals, and research provides clear legislative or regulatory action.
Expanded Income Eligibility for Health Insurance	State has adopted and fully implemented the Medicaid expansion under the ACA that includes coverage for most adults with incomes up to 138% of the federal poverty level.
Reduced Administrative Burden for SNAP	State's median recertification interval is 12 months or longer among households with SNAP-eligible children under age 18.
Paid Family Leave	State has adopted and fully implemented a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care.
State Minimum Wage	State has adopted and fully implemented a minimum wage of \$10 or greater.
State Earned Income Tax Credit	State has adopted and fully implemented a refundable EITC of at least 10% of the federal EITC for all eligible families with any children under age 3.

EFFECTIVE STRA	TEGIES: have demonstrated impacts on PN-3 goals, but research provides no clear guidance for legislative action.
Comprehensive Screening and Referral Programs	State has both evidence-based comprehensive screening and referral programs: Family Connects and Healthy Steps.
Child Care Subsidies	State base reimbursement rates (for infants and toddlers in center-based care and family child care) meet the federally recommended 75th percentile using a recent market rate survey.
Group Prenatal Care	State supports the implementation of group prenatal care financially through enhanced reimbursements for group prenatal care providers.
Evidence-Based Home Visiting Programs	State supplements federal funding, and the estimated percentage of eligible children served by home visiting is at or above the median state value (7.3%).
Early Head Start	State supplements federal funding, and the estimated percentage of income-eligible children with access to EHS is at or above the median state value (8.9%).
Early Intervention Services	State has moderate or broad criteria to determine eligibility and serves children who are at risk for later delays or disabilities.

How Do We Determine Which Policies and Strategies Are Effective?

The Prenatal-to-3 Policy Impact Center developed a **nine-step process** to conduct comprehensive, systematic reviews of the evidence to reach conclusions about the effectiveness of state solutions to create the conditions in which young children and their families thrive.

1	Identify POTENTIAL POLICIES that:	
	• are connected to the prenatal-to-3 period,	 have been implemented in a large setting, and
	• are within state jurisdiction,	 have been studied.
2	Review the policy's BACKGROUND , including the goals it aims to address.	policy's history, structure, and variation, as well as which PN-3
3	Conduct a BROAD SCAN to collect all relevant lite or a state <i>strategy</i> with no clearly defined optimal	erature and determine if we can review a clear statewide <i>policy</i> , state lever.
4	Limit scope of our review to only those studies that prenatal-to-3 outcomes.	at try to make a CAUSAL LINK between a policy or strategy and
5	Determine if each remaining study meets our star design and analytic methods.	ndards of STRONG CAUSAL EVIDENCE based on its research
6	For each strong causal study, document the DIREC studied (e.g., low birthweight) that aligns with one • Beneficial • Null	CTION of the policy or strategy's IMPACT on EACH INDICATOR of our eight policy goals (e.g., Healthy and Equitable Births): • Detrimental
7	Weigh the number, direction, and effect size of all publication for each study to determine the OVER	indicators, along with the sample size, data source, and year of ALL IMPACT of the policy or strategy on EACH POLICY GOAL:
	Positive	• Null
	Mostly Positive	Negative
	• Mixed	
8	Determine the OVERALL SUPPORT FOR POLICY considered effective if it significantly improves at l	OR STRATEGY EFFECTIVENESS. A policy or strategy can be least one policy goal:
	• Effective	Ineffective

Conduct a **BROAD ANALYSIS** of factors that may influence the impact of a policy or strategy (e.g., size and scope of impact, equity and inclusiveness, return on investment, and feasibility).

EFFECTIVE POLICIES

Expanded Income Eligibility for Health Insurance

→ Impacts Five Prenatal-to-3 Policy Goals

State has adopted and fully implemented the Medicaid expansion under the ACA that includes coverage for most adults with incomes up to 138% of the federal poverty level.



Medicaid is a joint federal-state program that provides health insurance to low-income households. The federal Patient Protection and Affordable Care Act, also known as the ACA, was signed into law in 2010. In addition to providing subsidies to purchase health insurance in the online marketplace, the ACA expanded Medicaid eligibility to most adults with incomes up to 138% of the federal poverty level (FPL), to begin in 2014. Without this expansion, most childless adults are not eligible to receive Medicaid, and income eligibility criteria for parents vary widely across states. In 2012, however, the Supreme Court ruled that the federal expansion was unconstitutional and gave states the power to determine their own income eligibility guidelines. As of October 1, 2020, 37 states have adopted and fully implemented a policy to expand access to Medicaid for most low-income adults with incomes up to 138% of the FPL. In addition, Missouri and Oklahoma have adopted the policy, but they have not fully implemented it yet.

Medicaid expansion provides women with access to needed health services during the perinatal period, reduces racial disparities in birth outcomes, and bolsters economic security through reduced medical spending and debt. The policy provides vital health insurance coverage for families of color, who are more likely to lack health insurance and to experience financial insecurity. Medicaid expansion facilitates health coverage and access, and supports the health and financial wellbeing of families. Because expanding Medicaid affects multiple issues that disproportionately affect families of color, this policy is more likely than other policies to help narrow racial and ethnic disparities.



Search the new Prenatal-to-3 Policy Clearinghouse for an ongoing inventory of rigorous evidence reviews at **pn3policy.org/clearinghouse**.

EFFECTIVE POLICIES

Reduced Administrative Burden for SNAP → Impacts Two Prenatal-to-3 Policy Goals

State's median recertification interval is 12 months or longer among households with SNAP-eligible children under age 18.



Administrative burden refers to the barriers that increase the costs—time, money, and psychological distress—of applying for and maintaining eligibility in public assistance programs. One program that has wide variation in participation among those who are eligible is the Supplemental Nutrition Assistance Program (SNAP), formerly known as the Food Stamp program.

In 2017, SNAP lifted 3.4 million people in the United States out of poverty, including 1.5 million children, and SNAP has been shown to reduce childhood food insecurity by up to 36%. Policies that reduce administrative burden for SNAP increase participation rates among eligible households. Longer recertification intervals of at least 12 months are the most effective individual policy to increase participation, but no one policy is as effective as a set of low-burden policies implemented together, such as removing the in-person interview, and allowing online renewals. Currently, 32 states have median recertification intervals of 12 months or longer among households with SNAP-eligible children.

EFFECTIVE POLICIES

Paid Family Leave → Impacts Six Prenatal-to-3 Policy Goals

State has adopted and fully implemented a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care.



State paid family leave programs require employers to allow eligible parents time off from work to bond with a new child while receiving a portion of their wages. This policy expands the rights ensured by the federal Family and Medical Leave Act (FMLA), which protects jobs and health insurance coverage for up to 12 weeks, but does not cover all workers and does not require that parents on leave continue to receive income.

Five states have adopted and fully implemented paid family leave policies that provide new parents with a minimum of 6 weeks of paid leave. Four additional states have adopted paid family leave programs, but the policy is less generous or not yet available to parents. Currently, six states allow parents to take between 4 and 12 weeks off of work, with pay varying based on a proportion of the employee's wages prior to taking leave. States with paid family leave policies of at least 6 weeks see increased maternal labor force attachment, improved maternal and child health, and higher parent engagement. In states with paid family leave, parents of all races and ethnicities are more likely to take leave compared to parents in states without paid family leave, but the greatest impacts are for Black mothers.
EFFECTIVE POLICIES

A State Minimum Wage of \$10 or Greater → Impacts Four Prenatal-to-3 Policy Goals

State has adopted and fully implemented a minimum wage of \$10 or greater.



The minimum wage establishes a floor for workers' hourly wages. The federal minimum wage requires that most hourly workers be paid at least \$7.25 per hour, but states can establish higher thresholds. Currently 30 states have minimum wages higher than the federal level, with one state having a minimum wage as high as \$15 per hour. Nineteen states have minimum wages of \$10 or greater. A state minimum wage of \$10 or greater increases household resources and reduces child poverty, particularly in families of color, and improves birth outcomes and parent mental and physical health.

Workers who are women, Black, or Latinx are disproportionately represented among those who earn less than \$15 per hour, and therefore are the most likely to benefit from an increase in a state's minimum wage. Wage disparities contribute to income and wealth disparities: White workers earn, on average, 25% more in annual income than Black workers, and the median net wealth of White families is estimated at 10 times that of Black and Latinx families.

EFFECTIVE POLICIES

A Refundable State EITC of At Least 10% of the Federal EITC

→ Impacts Three Prenatal-to-3 Policy Goals

State has adopted and fully implemented a refundable EITC of at least 10% of the federal EITC for all eligible families with any children under age 3.



The federal EITC is a refundable tax credit for low-income workers. Households with at least one working adult can receive the federal EITC either as a reduction in taxes owed or as a refund, if the household has no tax liability. The amount of the federal EITC increases as a percentage of income earned until a plateau income range is reached, then the credit amount decreases slowly as income continues to rise. The credit amount is substantially larger for resident parents than it is for childless adults or nonresident parents. The state EITC is an additional tax credit based on a percentage of the federal EITC. The value and administration of the state credit is determined by each state, including whether the state credit is refundable or nonrefundable.

Of the 23 states with a refundable state EITC, 18 have a refundable credit of at least 10% that applies to all eligible taxpayers with children under 3. A refundable state EITC of at least 10% of the federal EITC leads to healthier and more equitable birth outcomes. Even more noteworthy, in states with generous refundable credits, Black mothers see the greatest reductions in low birthweight births relative to White and Hispanic mothers. Impacts on economic outcomes such as parents' ability to work and household resources are somewhat mixed, with mostly positive results but some null results, as well.

Comprehensive Screening and Referral Programs

→ Impacts Two Prenatal-to-3 Policy Goals

State has both evidence-based comprehensive screening and referral programs: Family Connects and Healthy Steps.



Comprehensive screening and referral programs assess children and parents for a range of factors that contribute to longterm child and family wellbeing, including physical development, behavioral issues, parental mental and physical health, and social determinants of health. Based on identified needs, families are referred to necessary services and supports. Two models of comprehensive screening and referral programs, Family Connects and Healthy Steps, have been rigorously studied, and demonstrate positive impacts on PN-3 outcomes.

Comprehensive screening programs, either postpartum (Family Connects) or in the pediatric setting (Healthy Steps), connect families to needed services and have the potential to promote optimal child health and development through timely vaccinations and pediatric appointments. Eight states have both evidence-based program models, but states are pursuing other, less rigorously studied models, such as Help Me Grow and state-specific models to screen and refer families to the services they need. Research does not provide clear guidance on the optimal legislative or regulatory action states can take to ensure that all families have access to comprehensive screening and referral services, although Oregon recently adopted a policy to offer Family Connect services statewide, and an evaluation is in place to determine the policy's effectiveness.



Child Care Subsidies -> Impacts Three Prenatal-to-3 Policy Goals

State base reimbursement rates (for infants and toddlers in center-based care and family child care) meet the federally recommended 75th percentile using a recent market rate survey.



Child care subsidy programs provide financial assistance to help make child care more affordable for low-income families. Subsidy programs are financed largely through federal funds but are administered by states. States have considerable flexibility in setting rules on program policies and administration (e.g., eligibility requirements, application procedures, family copayment levels, and provider policies), resulting in substantial state variation in subsidy policy. Federal eligibility requirements for child care subsidies mandate that adults in the household work or participate in education and training activities, that household income is less than 85% of the state median income, and that children are younger than age 13.

The federal government considers state base reimbursement rates at the 75th percentile or above (covering three-fourths of child care slots in the state, based on a market rate survey no older than two years), as providing low-income families with equal access to the child care market, but percentiles vary widely across states. Even if a state meets the 75th percentile benchmark, this does not necessarily ensure equitable access to high-quality care. To date, only one state meets the minimum federal guidance for all four reimbursement rates (infants and toddlers in center-based care and family child care).

The current evidence base shows that both child care subsidy receipt and greater state per-child subsidy spending increase enrollment in formal child care settings and increase maternal employment and education. Currently, state subsidy reimbursement rate levels vary considerably, and evidence does not provide clear guidance to states on how to set an optimal subsidy level to ensure subsidies increase low-income families' access to high-quality child care.



Search the new Prenatal-to-3 Policy Clearinghouse for an ongoing inventory of rigorous evidence reviews at **pn3policy.org/clearinghouse**.

Group Prenatal Care -> Impacts Four Prenatal-to-3 Policy Goals

State supports the implementation of group prenatal care financially through enhanced reimbursements for group prenatal care providers.



Group prenatal care (GPNC) is an alternative model of prenatal care facilitated by a trained healthcare provider, but delivered in a group setting, integrating health assessments, education and skills building, and peer social support. GPNC provides pregnant women (typically with low-risk pregnancies not requiring individual monitoring) with approximately 20 hours of prenatal care over the course of their pregnancies compared to approximately 2 hours in traditional, individual care settings. One group prenatal care model, CenteringPregnancy, has been rigorously studied, to date.

Participation in group prenatal care increases the likelihood that mothers receive adequate prenatal care, improves mothers' physical and emotional health, and has mixed impacts on healthy and equitable births and optimal child health and development. Research does not currently provide guidance on a specific legislative or regulatory action that states should take to effectively implement GPNC at scale. States can fund GPNC services through a variety of methods; ten states support the implementation of group prenatal care financially through enhanced reimbursements for group prenatal care providers.

EFFECTIVE STRATEGIES

Evidence-Based Home Visiting -> Impacts One Prenatal-to-3 Policy Goal

State supplements federal funding, and the estimated percentage of eligible children served by home visiting is at or above the median state value (7.3%).



Home visiting programs, which provide support and education to parents in the home through a trained professional (e.g., nurse or social worker) or paraprofessional, have a growing evidence base and have expanded rapidly over the last decade as a state-based investment in supporting parents and children. Research does not provide clear guidance on the level of state investment necessary to be an effective state-level policy, and states use a variety of funding levels and sources to support evidence-based home visiting programs. Overall, a relatively small percentage of families and children who are eligible for the programs receive services, ranging from 0.8% to 23.7% of children under age 3 in families with incomes under 150% of the federal poverty level. The median state serves 7.3% of eligible children.

Participation in evidence-based home visiting programs leads to small but positive impacts on parenting skills, but the significant effects that do emerge do so within the context of many more null findings. There is less consistent evidence for impacts on other parent and child outcomes.

Early Head Start -> Impacts Three Prenatal-to-3 Policy Goals

State supplements federal funding, and the estimated percentage of income-eligible children with access to EHS is at or above the median state value (8.9%).



Early Head Start (EHS) is a federally funded program serving low-income pregnant women, infants, toddlers, and their families. Early Head Start promotes healthy social, emotional, cognitive, and physical development in young children, assists parents in developing positive parenting skills and moving toward self-sufficiency goals, and brings together community partners and resources to provide families with comprehensive services and support.

Early Head Start improves numerous aspects of children's relationships with the adults in their lives, leaving children better off due to more nurturing and responsive relationships with parents and teachers in safe settings. Early Head Start also supports children's health and development. The current evidence base draws primarily from the Early Head Start Research and Evaluation Project, but it does not provide clear guidance to states on the necessary level of resources to make EHS an effective statewide policy. Currently, the percentage of income-eligible children who have access to EHS services ranges from 3.5% in Tennessee to 26.0% in the District of Columbia, with 8.9% of income-eligible infants and toddlers having access to EHS in the median state.

EFFECTIVE STRATEGIES

Early Intervention Services -> Impacts Two Prenatal-to-3 Policy Goals

State has moderate or broad criteria to determine eligibility and serves children who are at risk for later delays or disabilities.



Early Intervention (EI) is a federal grant program authorized by Part C of the Individuals with Disabilities Education Act (IDEA) that provides funds to states to coordinate services for infants and toddlers (birth to age 3) with disabilities or developmental delays, regardless of family income. States are charged with developing eligibility rules and ensuring that children who may have a developmental delay or who may be at risk for developing a delay are evaluated for Part C eligibility in a timely manner. Early Intervention services for infants and toddlers with developmental delays or diagnosed medical conditions can improve children's outcomes relative to those who do not receive services, in areas including cognitive development, language/communication skills, and motor skills, especially for infants born preterm or low birthweight, for whom the most rigorous research exists.

Research estimates that 13% to 20% of children under age 3 could benefit from EI services, but the proportion of children under age 3 served by EI varies across states, from a low of 0.9% in Arkansas to a high of 10.1% in Massachusetts, with the median state serving 3.2% of infants and toddlers. Research provides no clear guidance on the optimal funding level to ensure an adequate number of children are served, but states that allow Medicaid to reimburse for EI services through the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) assessment and states that have broader eligibility criteria generally serve more infants and toddlers.



Monitor STATE PROGRESS toward adoption & implementation of effective solutions

Effective solutions are not implemented similarly across all states, leaving children and families across the US with a patchwork of benefits and unequal outcomes. Monitor state progress toward adopting and implementing effective solutions that serve all eligible children and families.

HOW DO WE DETERMINE STATES' PROGRESS TOWARD IMPLEMENTING EFFECTIVE POLICIES AND STRATEGIES?

To provide states with the guidance and direction they need to build a robust and more equitable prenatal-to-3 system of care, we sought first to understand the progress states had made to date toward implementing each of the effective policies and strategies.

Policy adoption and implementation typically do not happen quickly; states may consider legislation for several sessions before passing a bill that then becomes law, and it often takes even longer for states to fully implement a new policy. States in which there has been considerable legislative initiative have made greater progress toward and are likely closer to adopting and implementing a policy compared to states in which there has been little to no legislative initiative. Once a policy is adopted, some states make the benefits more generous over time, whereas other states may rescind benefits in bills during subsequent legislative sessions. This variation in the legislative process provides greater insights to state policy leaders on where their states stand relative to others on policy adoption and implementation.

In addition to providing information on states' progress toward adopting and implementing effective policies and implementing effective strategies, this Roadmap also provides information on states' benefit levels, to describe how the generosity of benefits varies across states, along with information on the extent to which states are serving all families who are eligible. Monitoring this information provides states with guidance on whether the benefits they offer are adequate for making an impact on the wellbeing of children and families and whether they are reaching all who are in need.



Determining States' Progress Toward Adopting and Fully Implementing POLICIES

In this Roadmap, policies are defined as having been studied at the state level, and the evidence points to clear legislative or regulatory action that states can take to implement the policy and achieve better outcomes. Comprehensive reviews of rigorous evidence informed the definition for each of the five effective policies, including the level of generosity necessary to achieve outcomes for children and families (e.g., a paid family leave program with a minimum of 6 weeks of benefit, or a minimum wage of \$10 or greater).

Relying on comprehensive research of state statute and law, we determined:

- whether (yes or no) each state had adopted and fully implemented the five effective policies at the generosity level indicated by comprehensive reviews of rigorous evidence, and
- what progress each state had made by June 30, 2020, toward adopting and fully implementing the five effective policies.

Detailed information on state progress toward policy adoption and implementation is available in the Policy Profile section of this Roadmap and in the Prenatal-to-3 Policy Clearinghouse at <u>pn3policy.org</u>. Broadly, state progress toward adopting and implementing each effective policy falls into four areas, shown below.

Progress Toward Policy Adoption and Implementation

Yes	 YES, the state has adopted and fully implemented the policy, AND the state has made efforts to make it more generous; OR YES, the state has adopted and fully implemented the policy, BUT the state has: made no effort to make the policy more generous, made the policy less generous over time (but not below the generosity level indicated by the research), or included provisions that may make it difficult for families to access services.
Some Progress	 NO, the state has not adopted and fully implemented the policy, BUT the state has: adopted the policy and just has not fully implemented it, or adopted and implemented a version of the policy that does not meet the generosity criteria indicated by the evidence.
No	NO, the state has not adopted and fully implemented the policy, BUT the state has had considerable, recent legislative initiative toward policy adoption. OR NO, the state has not adopted and fully implemented the policy, AND the state has had little to no recent legislative initiative toward policy adoption;
Regressive	NO, the state has not adopted and fully implemented the policy, AND the state has enacted provisions to prevent or limit the future adoption of the policy at the generosity level indicated by the research.

THE PRENATAL-TO-3 STATE POLICY ROADMAP

Determining States' Progress Toward Implementing STRATEGIES

In contrast to policies, state-level strategies are effective programs or approaches that states have implemented, but research has not evaluated the strategy as a statewide policy, and research does not provide clear guidance on how states should implement the strategy statewide to replicate the impacts that were found in rigorous studies. Without state statute or law to review for progress toward a defined legislative or regulatory action, we leveraged available data assessing state variation in each of the strategies to demonstrate how states are making progress implementing the six strategies relative to one another. Indicators of variation included factors such as the percentage of children or families that states serve through the strategy, states' eligibility criteria for the strategy, whether states invest state funds in the strategy, and whether states meet the federal recommendations for implementing the strategy.

Based on the distribution of how states vary relative to one another across a set of indicators unique to each strategy, we determined whether states are making substantial progress toward implementing each strategy. The variation indicators associated with each strategy vary widely; thus, the definition of "substantial progress" varies widely. For example, substantial progress toward implementing child care subsidies in a state was defined as setting base reimbursement rates (for infants and toddlers in center- and family child care) that meet the federally recommended 75th percentile using a recent market rate survey, whereas substantial progress toward implementing Early Intervention services was defined as having moderate or broad criteria to determine eligibility and serving children who are at risk for later delays or disabilities.

State has made substantial progress implementing the strategy; the state: · invests state funds and serves a significant proportion of children/families compared to other states, or Substantial meets or exceeds all federal recommendations, or Progress has generous eligibility criteria. State has made some progress implementing the strategy; the state: · does not invest state funds, but it serves a significant proportion of children/families compared to other states: or does invest state funds, but it does not serve a significant proportion of children/families compared to Some Progress other states; or meets some, but not all, federal recommendations; or does not have generous eligibility criteria. State has made little to no progress implementing the strategy; the state: does not invest state funds, · does not serve a significant proportion of children or families compared to other states, Little to No does not meet federal recommendations for implementing the strategy, or Progress does not have generous eligibility criteria.

Progress Toward Implementing Strategies



Track OUTCOMES TO MEASURE IMPACT

on optimal health and development of infants and toddlers

20 child and family outcome measures illustrate the health, resources, and wellbeing of infants, toddlers, and their parents in states, and reveal progress toward achieving the 8 PN-3 goals.

OUTCOMES MEASURE PROGRESS TOWARD POLICY GOALS

Based on the science of the developing child, we have identified 20 outcome measures to track the overall health and wellbeing of infants and toddlers and their parents. Each outcome is aligned with a PN-3 policy goal, and illustrates states' success in meeting that goal or indicates where a state is lagging. State leaders should monitor all of the outcomes collectively to understand how children and families are faring in their state.

The outcome measures are illustrated in the Goal Profiles and final section of this Roadmap and at pn3policy.org.



Although reviewing the aggregate health and wellbeing of children and families is important, states also must pay attention to disparities in outcomes by racial and ethnic group and by socioeconomic status. Racial and ethnic disparities in outcomes reveal long-standing patterns of racism and policy choices within states that discriminate against families of color.^{10,11} Eliminating these disparities must be a goal for all states.

Consistent information across all states on the health and wellbeing of infants and toddlers is somewhat limited. Important measures that indicate whether children are on track for healthy development, such as cortisol levels, cognitive assessments, and direct measures of social-emotional wellbeing, do not exist at the national level for young children. Therefore, we must use proxy measures that are available consistently across the US—such as poverty, maternal mental health, preterm birth, and maltreatment—to monitor wellbeing. Large, national datasets provide information on how children under age 3 are doing; however, on average, at the state level, the small sample sizes prohibit the measurement of state-level racial and ethnic disparities in outcomes, unless many years of data are pooled into one sample. Pooling data across years, however, limits a state's ability to track progress toward their goals over time.

In addition to the lack of ideal prenatal-to-3 outcome measures and small sample sizes that preclude having a firm understanding of racial and ethnic disparities in most outcomes at the state level, national data sets are also not timely. The most recently available data in the national datasets are typically a year or two old before they are released for public use, which makes it difficult for states to measure the impact of recent policy changes on changes in outcomes. The COVID-19 pandemic has made this time lag an even larger concern. The collapse of the economy and the public health crisis have affected us all, but they have disproportionately affected families of color and families with lower levels of education and income.^{12,13,14} The crisis has exacerbated inequalities, but these disparities will not be captured in our publicly available national data sets for years to come.¹⁵ Nevertheless, the outcomes we can measure provide an important barometer for the health and wellbeing of young children and their parents.

THE PRENATAL-TO-3 STATE POLICY ROADMAP

NAVIGATING THE PRENATAL-TO-3 STATE POLICY ROADMAP

Annually, the Prenatal-to-3 State Policy Roadmap will monitor and track states' progress toward adopting and implementing the effective policies and strategies that strengthen the prenatal-to-3 system of care, and it will measure outcomes that demonstrate how the wellbeing of infants and toddlers varies across states and improves over time. The information in the Roadmap provides states with guidance on how to strengthen their PN-3 systems of care overall and how to improve any particular PN-3 goal in which their children and families are lagging on specific outcomes.

For your state, ask:

- 1. Has our state adopted and fully implemented the five effective policies and six effective strategies that positively impact the prenatal-to-3 policy goals?
- 2. If not, what progress has our state made toward policy adoption and implementation?
- 3. Are our state's benefits for the policies and strategies as generous as those of other states?
- 4. Are all eligible families in our state receiving the benefits they need?

The Roadmap chart illustrates the effective policies and strategies that impact each PN-3 goal. The PN-3 goals are shown across the top, and the circles within each column illustrate which policy or strategy impacts the goal. Some policies and strategies impact multiple goals, and some PN-3 goals are impacted by several policies and strategies. Ultimately, states should implement all 11 effective solutions; and over time, as the evidence base grows, more policies and strategies will be added to the chart.



Prenatal-to-3 State Policy Roadmap

Effective policies impact PN-3 goals and research provides clear legislative Policy/strategy is aligned with goal in column or regulatory action. Effective strategies have demonstrated impacts on PN-3 goals, but research provides no clear guidance for legislative action. Policy/strategy does not align with goal in column (intentionally blank) **GOALS** Nurturing and Responsive Nurturing Access Parents' Sufficient Healthy Parental Health **Optimal Child** and Responsive To achieve a and Equitable Births and Emotional Wellbeing to Needed Ability Household Health and Child-Parent Child Care in science-driven Services to Work Resources Development Relationship Safe Settings PN-3 goal: POLICIES Adopt and fully implement the effective policies aligned with the goal Expanded Income Eligibility for Health Insurance Reduced Administrative Burden for SNAP Paid Family Leave State Minimum Wage State Earned Income Tax Credit **STRATEGIES** Make substantial progress relative to other states toward implementing the effective strategies aligned with the goal Comprehensive Screening and Referral Programs Child Care Subsidies Group Prenatal Care Evidence-Based Home Visiting Programs Early Head Start Early Intervention Services Health Insurance Access to SNAP Developmental Screenings Preterm Births Low Birthweight Infant Mortality Child Poverty rowded Housin Child Care Providers Parental Employment Maternal Mental Health Breastfeeding OUTCOMES Daily Nurturing Behaviors Participating in QRIS Food Insecurity Measure progress Parenting Support Child Maltreatment toward achieving Access to EHS

the PN-3 goal

Use This Roadmap as a Guide To:

Prioritize Prenatal-to-3 Policy Goals

The following Goal Profiles provide a brief overview of the eight prenatal-to-3 (PN-3) policy goals, beginning with a description of the science linking each goal to healthy child development. Additional information illustrates states' progress toward meeting each PN-3 policy goal. For each of the 20 outcome measures, data show how children and families are faring in the five best states and the five worst states, as well as how the wellbeing of infants, toddlers, and their parents varies across racial and ethnic groups. States (including DC) are ranked from first (best) to 51st (worst) on each outcome, to help states identify where to prioritize their efforts.

For each PN-3 goal, we highlight the most effective policies and strategies that are aligned with the goal, and provide information on the potential impacts the policies and strategies can have on improving outcomes and reducing disparities for infants and toddlers and their parents. Information on which states have adopted and fully implemented each effective policy is provided, along with information on which states have implemented the effective strategies to a larger degree than most states.

Although research provides helpful guidance, there are limits to the evidence base. This Roadmap identifies the 11 effective policies and strategies that have robust, causal impacts on prenatal-to-3 goals. However, the current evidence base does not provide enough answers as to what works and doesn't work for infants and toddlers. Where available, we demonstrate the other solutions states are pursuing that can help build the evidence base on how to improve the health and wellbeing of infants, toddlers, and their parents.



Adopt and Implement Effective Policies and Strategies

Following the section describing each of the eight prenatal-to-3 goals, we profile each of the five effective policies and six effective strategies. Each Policy Profile begins with a brief review of how each policy or strategy impacts the PN-3 goals. More detailed information on the evidence is available in the Prenatal-to-3 Policy Clearinghouse at pn3policy.org.



Monitor Progress Toward Policy Adoption and Implementation

States should work to adopt and implement all of the effective policies and strategies. The Policy Profiles section illustrates states' current progress toward implementing each solution. The information presented in this section provides baseline data from which to track subsequent progress over time. The Policy Profiles also provide information on states' generosity of benefits and the extent to which states are serving families who are eligible for a specific benefit. Additional information on each state's individual progress and variation is available in each state's Prenatal-to-3 State Policy Roadmap. (See pn3policy.org)



Measure Outcomes

Tracking progress on the 20 key prenatal-to-3 outcomes allows states to determine the health and wellbeing of children and families, and to identify which PN-3 goals are lagging and should be prioritized. Following the profiles of each of the five effective policies and the six effective strategies, we provide a summary of overall state progress on each of the outcomes and variation in the outcomes across racial and ethnic groups at the national level. In each state's Prenatal-to-3 State Policy Roadmap, for all 20 outcomes, we show each state's individual progress relative to the best and worst state and their state's rank. States can evaluate their progress on the outcomes to determine which PN-3 goals, profiled in the following section of the Roadmap, need to be prioritized.

THE PRENATAL-TO-3 STATE POLICY ROADMAP

ENDNOTES

¹Shonkoff, J. (2017). Breakthrough Impacts: What Science Tells Us About Supporting Early Childhood Development. *YC Young Children*, 72(2), 8-16. https://www.jstor.org/stable/90004117

² Shonkoff, J. (2014). A Healthy Start Before and After Birth: Applying the Biology of Adversity to Build the Capabilities of Caregivers. In K. McCartney, H. Yoshikawa, & L.B. Forcier (Eds.), *Improving the Odds for America's Children* (pp. 28-39)

³ National Scientific Council on the Developing Child (2020). Connecting the Brain to the Rest of the Body: Early Childhood Development and Lifelong Health Are Deeply Intertwined Working Paper No. 15. www.developingchild.harvard.edu

⁴ Shonkoff, J. (2017). Breakthrough Impacts: What Science Tells Us About Supporting Early Childhood Development. *YC Young Children*, 72(2), 8-16. https://www.jstor.org/stable/90004117

⁵ National Scientific Council on the Developing Child (2015). *Supportive Relationships and Active-Skill Building Strengthen the Foundations of Resilience Working Paper No.* 13. www.developingchild.harvard.edu

⁶ Shonkoff, J., Richter, L., van der Gaag, J., & Bhutta, Z. A. (2012). An Integrated Scientific Framework for Child Survival and Early Childhood Development. *Pediatrics*, 129(2), e460. https://doi.org/10.1542/peds.2011-0366

⁷ Shonkoff, J., & Garner, A. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics* (Evanston), 129(1), e232–e246. https://doi.org/10.1542/peds.2011-2663

⁸ Damron, N., Institute for Research on Poverty. (2015). Brain Drain: A Child's Brain on Poverty [Fact sheet]. https://www.irp.wisc.edu/ publications/factsheets/pdfs/Factsheet8-BrainDrain.pdf

⁹ Shonkoff, J., Garner, A. S., The Committee on Psychosocial Aspects of Child and Family Health, Committee on Early Childhood, Adoption, and Dependent Care, & Section on Developmental and Behavioral Pediatrics. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*, 129(1), e232-246

¹⁰ The Annie E. Casey Foundation. (2017). 2017 Race for results: Building a path to opportunity for all children. Baltimore, MD. https://www.aecf.org/resources/2017-race-for-results/

¹¹ Taylor, J., Novoa, C., Hamm, K., & Phadke, S. (2020). Eliminating racial disparities in maternal and infant mortality. Washington DC: Center for American Progress. https://www.americanprogress.org/issues/women/reports/2019/05/02/469186/eliminating-racialdisparities-maternal-infant-mortality/

¹² Guzman, L., Ryberg, R. (2020). *The majority of low-income Hispanic and Black households have little-to-no bank access, complicating access to COVID relief funds*. Research publication 2020-06. National Research Center on Hispanic Children & Families. https://www.hispanicresearchcenter.org/

¹³ Lopez, M. H., Rainie, L., (2020) Financial and Health Impacts of COVID-19 Vary Widely by Race and Ethnicity. Pew Research Center. https://pewrsr.ch/2L15rwr

¹⁴ Kocchar, R. (2020). Hispanic women, immigrants, young adults, those with less education hit hardest by COVID 19 job losses. Pew Research Center. https://pewrsr.ch/2MW8M17

¹⁵ Parolin, Z., Wimer, C., (2020). Forecasting Estimates of Poverty during the COVID-19 Crisis: Poverty Rates in the United States Could Reach Highest Levels in Over 50 Years. Poverty & Social Policy Brief. Vol. 4 No. 6 April 16, 2020. Center on Poverty & Social Policy at Columbia University

8 PRENATAL-TO-3 POLICY GOALS

Healthy and Equitable

Births

Driven by science to foster a robust, comprehensive PN-3 system of care

Sufficient

Household

Resources

Access

to Needed

Services

Parents'

Ability

to Work

Why is each goal important?

How are states currently meeting each goal?

Nurturing

and Responsive

Child-Parent

Relationship

Parental Health

and Emotional

Wellbeing

Nurturing

and Responsive

Child Care in

Safe Settings

Optimal Child

. Health and

Development

What are the most effective policies and strategies to impact each goal?

What other solutions are states pursuing that can help build the evidence base?

ACCESS TO NEEDED SERVICES

Families have access to necessary services through expanded eligibility, reduced administrative burden, and identification of needs and connection to services.



WHY IS ACCESS TO NEEDED SERVICES AN IMPORTANT PRENATAL-TO-3 GOAL?

Ensuring access to the resources and services that parents and children need is foundational to building a prenatal-to-3 system of care. States provide a number of benefits and programs to children and families, based on varying eligibility criteria and modes of delivery. However, use of services among families who are eligible varies considerably from state to state: Between two children in different states with identical needs, one may receive a benefit that the other does not, a situation leaving many without the services that help them to thrive. Families of color, in particular, are less likely to receive services even though they are eligible, as demonstrated by research on programs such as Medicaid, WIC, and Early Intervention (EI) services.^{1,2} For example, in a study about EI services, eligible Black children under age 2 were found to be 5 to 8 times less likely to receive services than White children, depending on the eligibility category.³



States have the ability to increase families' and children's access to services through three primary pathways:

- 1. Expanding eligibility criteria;
- 2. Reducing administrative burden, or the amount of effort that families must expend to receive an eligible benefit; and
- 3. Screening for the specific needs that families and their children have and connecting them with the precise services they need.

Expanded Eligibility Criteria

States have the flexibility to determine who is eligible for many programs and services, including programs largely funded by the federal government. Determinations about who is eligible for a service can be driven by whether a state has adopted a specific policy (for example, paid family leave or expanded income eligibility for health insurance), the broad or narrow criteria the state uses to determine whether someone is eligible (for example, criteria for Early Intervention services or child care subsidies), or whether to include or exclude certain populations that are not automatically eligible (for example, some states use state funds to provide services to immigrant families and children). These decisions drive variation in whether two children or parents with similar needs, but in different states, receive similar help.

Reduced Administrative Burden

Administrative burden refers to the barriers that increase the costs—time, money, and psychological distress of applying for and maintaining eligibility in a public assistance program. Administrative burden policies come in many forms, such as requiring that recertification for benefits takes place in person rather than remotely, or that recertification take place every 3 months rather than 12, or that a host of documents be presented to prove eligibility. Moreover, the policies can result from intentional or inadvertent features of regulations that states put in place.⁴ Regardless of the intentions, administrative burden policies are largely costly and inefficient, and they reduce the use of services among those who are eligible. Because state resources are generally scarce, reasonable policies are needed to ensure that only families who are eligible receive the intended services, but states have found methods to reduce fraud while also reducing unnecessary burdens on eligible families.

Screenings and Referrals to Needed Services

Identifying needs early and addressing them immediately helps to reduce the need for later services (and saves money).⁵ An adequate system for screening and referrals requires four components: (1) screening to identify the precise services that are needed, (2) referring and connecting the family to the needed services, (3) serving the family to address the need, and (4) monitoring outcomes to ensure the need is addressed. A breakdown in any of these links to services threatens the health of the system and may compromise improvements in outcomes. Our current systems often focus on screening, yet neglect to document the needs of the families, the services rendered, or the improvements made in family and child wellbeing.

Through our comprehensive reviews of rigorous research, we have identified policies and strategies that provide states with key opportunities to remove obstacles that prevent families from participating in the programs intended to help them thrive. Next is a closer look at these policies and strategies and an overview of important outcome measures that states should use to track their progress toward removing barriers to access.

HOW ARE STATES CURRENTLY MEETING THIS PRENATAL-TO-3 GOAL?

Three outcome measures illustrate families' access to services based on expanded eligibility, reduced administrative burden, and screenings for needed services: (1) health insurance access among lowincome women of childbearing age, (2) access to the Supplemental Nutrition Assistance Program (SNAP) among eligible households with children under age 18, and (3) developmental screenings among children under age 3. These outcomes vary considerably across states, as well as by race and ethnicity.



Access to Needed Services Outcome Measures

Lack of Health Insurance

% of low-income women of childbearing age who do NOT have any health insurance coverage

Median state value: 18.0%

Lack of Access to SNAP

% of eligible families with children under age 18 NOT receiving SNAP Median state value: 7.5%

Lack of Developmental Screenings

% of children ages 9 to 35 months whose parent reports their child did NOT receive a developmental screening in the past year

Median state value: 61.7%

All three outcome measures were calculated intentionally in the negative direction to demonstrate where states have room for improvement and to help states prioritize the PN-3 policy goals that are lagging. Out of 51 states, the worst state ranks 51st, and the best state ranks first. The median state indicates that half of states have outcomes that measure better than that state, whereas half of states have outcomes that are worse.



IMPACT OF COVID-19

The data used in this Roadmap predate the COVID-19 pandemic, and it is highly likely that the outcomes for infants, toddlers, and their parents have worsened substantially due to the collapse of the economy and the unprecedented strains on our child care, health care, and social service systems. The health crisis has disproportionately had a negative impact on families of color, exacerbating the racial and ethnic inequities in the wellbeing of infants, toddlers, and their parents.

Lack of Health Insurance

% of low-income women of childbearing age who do NOT have any health insurance coverage

In the five worst states, a third or more of low-income women of childbearing age do not have health insurance, leaving them physically and financially vulnerable, and without access to pre- or inter-conception care. Expanded income eligibility for health insurance would provide health insurance to most of these uninsured women, but not one of the five worst states has adopted the policy. At the extremes, low-income women in Texas are 9 times more likely than similar women in Vermont to lack health insurance, and lower-income Hispanic women lack health insurance at twice the rate of all other women.

5 BEST STATES				5 WORS	T STATES		
Rank	State	% Low- Income Women Uninsured	Rank	State	% Low- Income Women Uninsured	VARIATION BY RA	ACE & ET E US
1	VT	5.4%	51	ΤХ	47.7%	White	16.5%
2	MA	5.5%	50	GA	36.6%	Other	17.7%
3	DC	6.4%	49	ОК	36.2%	Black	19.9%
4	HI	8.4%	48	MS	34.1%	US Average	22.9%
5	MN	9.9%	47	FL	32.1%	i iispallic	



See Appendix for a table of state variation in Access to Needed Services outcomes and corresponding ranks for each state.

Source: 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS); for additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Lack of Access to SNAP

% of eligible families with children under age 18 NOT receiving SNAP

SNAP is a vital resource for increasing families' food security and improving nutrition. In the six best states, more than 95% of families with children under age 18 who are eligible for SNAP receive the benefit. In the five worst states, approximately 1 in 5 eligible families with children does not receive SNAP. SNAP receipt also reveals racial disparities: Among eligible families with children, 4.2% of Black families and 8.1% of White families do not receive the benefit, whereas 19.1% of Hispanic families go without.

	6 BEST	STATES		5 WORS	T STATES
Rank	State	% Eligible Families With Children Under Age 18 NOT Receiving SNAP	Rank	State	% Eligible Families With Children Under Age 18 NOT Receiving SNAP
1	TN	2.0%	51	CA	26.7%
2	LA	2.9%	50	NJ	21.2%
3	AL	3.0%	49	NV	20.5%
4	MO	3.2%	48	ТΧ	19.8%
5	MI	3.9%	47	CO	17.1%
5	WV	3.9%			





Source: 2016-2018, Urban Institute's TRIM3 project; for additional information, please refer to the Methods and Sources section of pn3policy.org.

Lack of Developmental Screenings

% of children ages 9 to 35 months whose parent reports their child did NOT receive a developmental screening in the past year

Nearly 3 out of 4 children in the five worst states do not receive a developmental screening assessment prior to age 3; but even in the five best states, up to half of children do not receive this important assessment for early detection of developmental delays. Black and Hispanic children are substantially less likely than White children to be screened at an early age for developmental delays.

	5 BEST	STATES		5 WORS	T STATES	
Rank	State	% Children Under Age 3 NOT Receiving Developmental Screening	Rank	State	% Children Under Age 3 NOT Receiving Developmental Screening	
1	MN	38.8%	51	MS	76.1%	
2	OR	39.5%	50	NY	73.7%	
3	CO	42.6%	49	FL	72.9%	
4	MA	49.7%	48	WY	72.5%	
5	GA	50.2%	47	LA	72.4%	







Source: 2016-2018 National Survey of Children's Health (NSCH); for additional information, please refer to the Methods and Sources section of pn3policy.org.

WHAT ARE THE MOST EFFECTIVE POLICIES AND STRATEGIES TO IMPACT ACCESS TO NEEDED SERVICES?



The Difference Between Policies and Strategies in This Roadmap

Effective policies have a demonstrated positive impact on at least one prenatal-to-3 goal, and the research provides clear guidance on legislative or regulatory action that states can take to adopt and implement the policy.

By contrast, **effective strategies** have demonstrated positive impacts on prenatal-to-3 outcomes, but the research does not provide clear guidance to states on how to effectively implement the program or strategy at scale.



More extensive information on the details and impacts of each policy and strategy, and states' progress toward implementing them, can be found in subsequent sections of this Roadmap, in the Prenatal-to-3 Policy Clearinghouse at pn3policy.org, and in each state's Prenatal-to-3 State Policy Roadmap.

Examples of Impact

V

Effective state policies and strategies to impact Access to Needed Services

EFFECTIVE POLIC	IES
Expanded Income Eligibility for Health Insurance	 Medicaid expansion led to an 8.6 percentage point increase in preconception Medicaid coverage (B) Medicaid expansion led to 0.9 more months of Medicaid coverage postpartum (I) Medicaid expansion led to a 5.1 to 8.4 percentage point increase in rates of recommended perinatal screenings (D)
Reduced Administrative Burden for SNAP	 Recertification intervals longer than 12 months led to an 11.4 percentage point increase in SNAP participation among households with children (12 percentage points among female-headed households) (E) The elimination of policies that added transaction costs and stigma to SNAP participation explained 14.6% of the SNAP caseload increase from 2000 to 2016 (A) Policies lengthening recertification intervals to longer than 3 months were associated with a 5.8% increase in SNAP participation from 2000 to 2009 (K)
Paid Family Leave	 Access to paid family leave increased leave-taking by 5 weeks for mothers and 2 to 3 days for fathers (B) Among Black mothers, access to paid family leave led to a 10.6 percentage point increase in leave-taking; among White mothers, a 4 percentage point increase (N)

EFFECTIVE STRAT	EGIES
Comprehensive Screening and Referral Programs	 Family Connects families accessed between 0.7 (B) and 0.9 (D) more community resources Healthy Steps families had 3.5 times higher odds of being informed about community resources (E)
Child Care Subsidies	 Subsidy recipient families were 2.0 to 3.8 times more likely to choose center-based care over informal care due to subsidy policy changes (G) A \$1,000 increase in state subsidy spending per low-income child led to 86% higher odds of enrollment in center-based care than multiple care arrangements (B)
Group Prenatal Care	 Group prenatal care led to a 10% increase in receipt of adequate prenatal care (G) Group prenatal care led to 1.8 more prenatal visits among participating Black women with high-risk pregnancies (L)

Note: The letters in parentheses in the table above correspond to the findings from strong causal studies included in the comprehensive evidence reviews of the policies and strategies. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at pn3policy.org.

Policy Variation Across States

Have states adopted and fully implemented the effective policies to impact **Access to Needed Services**?

EFFECTIVE POLICIES

Expanded Income Eligibility for Health Insurance

37 states have adopted and fully implemented the Medicaid expansion under the Affordable Care Act (ACA) that includes coverage for most adults with incomes up to 138% of the federal poverty level (FPL).



Sources: As of October 1, 2020. Medicaid state plan amendments (SPAs) and Section 1115 waivers.

Reduced Administrative Burden for SNAP

32 states have a median recertification interval that is 12 months or longer among households with SNAP-eligible children under age 18.



Sources: As of 2018. United States Department of Agriculture (USDA) Fiscal Year 2018 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel.

Paid Family Leave

5 states have adopted and fully implemented a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care.



Sources: As of October 1, 2020. State statutes and legislation on paid family leave.

Note: Some states in the "no" category for Policy Variation Across States have adopted a policy, but they have not fully implemented it, or they do not provide the level of benefit, indicated by the evidence reviews, necessary to impact the PN-3 goal. Many states in the "no" category for Strategy Variation Across States (on the next page) have implemented aspects of the effective strategies, but states are assessed relative to one another on making substantial progress. For additional information see <u>pn3policy.org</u>.

Strategy Variation Across States

Have states made substantial progress toward implementing the effective strategies to impact **Access to Needed Services**?

EFFECTIVE STRATEGIES

Comprehensive Screening and Referral Programs

8 states have both evidence-based comprehensive screening and referral programs: Family Connects and Healthy Steps.



Sources: As of June 12, 2020. Family Connects and Healthy Steps national websites.

Child Care Subsidies

1 state's base reimbursement rates (for infants and toddlers in center-based care and family child care) meet the federally recommended 75th percentile using a recent market rate survey.



Sources: As of July, 12020. State children and families' department websites and state market rate surveys.

Group Prenatal Care

10 states support the implementation of group prenatal care financially through enhanced reimbursements for group prenatal care providers.



Sources: As of June 8, 2020. State health department websites and proposed and passed state legislation.

PARENTS' ABILITY TO WORK

Parents have the skills and incentives for employment and the resources they need to balance working and parenting.



WHY IS PARENTS' ABILITY TO WORK AN IMPORTANT PRENATAL-TO-3 GOAL?

Irregular and unpredictable work schedules, lack of affordable child care, and limited access to paid time off can compromise a parent's ability to maintain stable employment and earn enough income to adequately provide for a family. According to data from the National Survey of Children's Heath, nearly 1 in 10 parents of young children report having to quit, decline, or substantially change a job due to problems with child care.¹ For young children in families for whom job instability creates financial hardship, the associated stress on parents can compromise children's physical and mental health, cognitive development, educational achievement, emotional wellbeing, and social adjustment later in life.^{2.3.4}

Black and Hispanic children are more likely than their peers to experience early challenges associated with job instability. Prior to the collapse of the economy and child care market brought on by the COVID-19 pandemic, unemployment was higher among Black (7.9%) and Hispanic (5.4%) families than among White (4.5%) and Asian (4.1%) families.⁵ The economic downturn appears to be perpetuating these disparities. June 2020 data from the US Bureau of Labor Statistics show that unemployment rates among Black (15.4%) and Hispanic or Latino (14.5%) adults remain higher than those among White (10.1%) adults.⁶

For families with young children, our comprehensive reviews of rigorous research show that states have considerable leverage—through paid sick leave policies, earned income tax credits, and child care subsidies—to remove obstacles to employment and help alleviate the tensions parents experience between working and caregiving. Next is a closer look at these and other solutions states can employ in pursuit of this goal. We also provide information on the percentage of infants and toddlers whose parents have not worked full time within the prior year and how this percentage varies across states. States can use this outcome to measure their progress toward supporting parents' ability to work.

HOW ARE STATES CURRENTLY MEETING THIS PRENATAL-TO-3 GOAL?

We rely on one outcome measure, parents' employment security, to illustrate parents' ability to find and maintain steady employment while also raising a family. Secure employment varies considerably across states, as well as by race and ethnicity.

Parents' Ability to Work Outcome Measure

Insecure Parental Employment

% of children under age 3 living in a family in which NO parent has regular, full-time employment Median state value: 26.2%

Employment security was calculated intentionally in the negative direction to demonstrate where states have room for improvement and to help states prioritize the PN-3 policy goals that are lagging. Out of 51 states, the worst state ranks 51st, and the best state ranks first. The median state indicates that half of states have outcomes that measure better than that state, whereas half of states have outcomes that are worse.



IMPACT OF COVID-19

The data used in this Roadmap predate the COVID-19 pandemic, and it is highly likely that the outcomes for infants, toddlers, and their parents have worsened substantially due to the collapse of the economy and the unprecedented strains on our child care, health care, and social service systems. The health crisis has disproportionately had a negative impact on families of color, exacerbating the racial and ethnic inequities in the wellbeing of infants and toddlers and their parents.



Insecure Parental Employment

% of children under age 3 living in a family in which NO parent has regular, full-time employment

Approximately 26% of children under age 3 have no parent who works full time throughout the entire year, leaving these families economically vulnerable. Children living in the five worst states are twice as likely not to have a full-time working parent as children living in the five best states, and Black children are more than twice as likely as White children to have a parent who does not work full time. Hispanic children have rates that are somewhat worse than the US average.

% Children % Children Under Age 3 With Under Age 3 With No Full-Time No Full-Time Rank State Working Parent
1 NE 16.8% 51 WV 37.0%
2 IA 17.0% 50 DC 35.5%
3 SD 17.2% 49 MS 33.9%
4 WI 17.4% 48 NM 33.1%
5 MN 17.8% 47 AK 32.6%



See Appendix for a table of state variation in the Parents' Ability to Work outcome and the corresponding rank for each state.

Source: 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS). For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

WHAT ARE THE MOST EFFECTIVE POLICIES AND STRATEGIES TO IMPACT PARENTS' ABILITY TO WORK?



Examples of the impacts that each effective policy and strategy has on increasing **Parents' Ability to Work** are summarized on the next page.



Two policies and one strategy impact this goal:



The Difference Between Policies and Strategies in This Roadmap

Effective policies have a demonstrated positive impact on at least one prenatal-to-3 goal, and the research provides clear guidance on legislative or regulatory action that states can take to adopt and implement the policy.

By contrast, **effective strategies** have demonstrated positive impacts on prenatal-to-3 outcomes, but the research does not provide clear guidance to states on how to effectively implement the program or strategy at scale.



More extensive information on the details and impacts of each policy and strategy, and states' progress toward implementing them, can be found in subsequent sections of this Roadmap, in the Prenatal-to-3 Policy Clearinghouse at pn3policy.org, and in each state's Prenatal-to-3 State Policy Roadmap.

Examples of Impact

Effective state policies and strategies to impact Parents' Ability to Work

EFFECTIVE POLIC	IES
Paid Family Leave	 Access to paid family leave led to a 5 to 8 percentage point increase in maternal labor force participation in the months surrounding birth (D) Access to paid family leave led to 7.1 more weeks worked by mothers in the second year of a child's life (B) Access to paid family leave led to a 13% increase in the likelihood of returning to prebirth employer in year following birth (B) Access to paid family leave led to a 12.9 to 18.3 percentage point increase in the probability of mothers working 1 year following birth (B)
State Earned Income Tax Credit	 A 10% state EITC supplement increased employment among single mothers by 2.1 percentage points compared to single women with no children (GG) Living in a state with an EITC boosted the likelihood of mothers' employment (for at least one week per year) by 19% (B) A \$100 increase in the maximum federal and state credits reduced annual labor force exit among single women by 2.5 percentage points (U)

EFFECTIVE STRAT	TEGIES
Child Care Subsidies	• A 10% increase in Child Care and Development Fund (CCDF) subsidy expenditures led to a 0.7% increase in mothers' employment rate (A)
	 A \$1,000 increase in state subsidy spending per low-income child led to a 3 to 4 percentage point increase in the likelihood of maternal employment (D)
	• Subsidy receipt predicted a 13 percentage point increase in the likelihood that mothers would increase their education level (C)

Note: The letters in parentheses in the table above correspond to the findings from strong causal studies included in the comprehensive evidence reviews of the policies and strategies. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at pn3policy.org.

Policy Variation Across States

Have states adopted and fully implemented the effective policies to impact **Parents' Ability to Work**?

EFFECTIVE POLICIES

Paid Family Leave

5 states have adopted and fully implemented a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care.



Sources: As of October 1, 2020. State statutes and legislation on paid family leave.

State Earned Income Tax Credit

18 states have adopted and fully implemented a refundable EITC of at least 10% of the federal EITC for all eligible families with any children under age 3.



Sources: As of October 1, 2020. State income tax statutes.

Strategy Variation Across States

Have states made substantial progress relative to other states toward implementing the effective strategies to impact **Parents' Ability to Work**?

EFFECTIVE STRATEGIES

Child Care Subsidies

1 state's base reimbursement rates (for infants and toddlers in center-based care and family child care) meet the federally recommended 75th percentile using a recent market rate survey.



Sources: As of July, 12020. State children and families' department websites and state market rate surveys.

Note: Some states in the "no" category for Policy Variation Across States have adopted a policy, but they have not fully implemented it, or they do not provide the level of benefit, indicated by the evidence reviews, necessary to impact the PN-3 goal. Many states in the "no" category for Strategy Variation Across States have implemented aspects of the effective strategies, but states are assessed relative to one another on making substantial progress. For additional information see<u>pn3policy.org</u>.

WHAT OTHER SOLUTIONS ARE STATES PURSUING THAT CAN HELP BUILD THE EVIDENCE BASE?

Beyond the policies and strategies proven effective by the current research, states also are pursuing other approaches that hold promise for improving parents' ability to work; these approaches have yet to accumulate enough rigorous research to draw conclusions on their effectiveness.

Fair work scheduling: Erratic, unpredictable work schedules create unique problems for workers and their families, making it difficult to secure reliable, quality child care.⁷ Unpredictable schedules also can compromise financial stability, diminish parents' physical and mental wellbeing, reduce the amount of time spent with children, and increase the likelihood that children will have behavioral problems.⁸ Research suggests that families of color are most likely to face these challenges, because Black and Hispanic workers—especially women—are more likely to have erratic work schedules than their White peers.⁹

In response to a growing understanding of how scheduling issues affect hourly employees with low incomes, states (as well as municipalities and companies) have begun to develop practices, known as fair work scheduling policies, that improve schedule predictability and address related issues, such as adequacy of hours, compensation, and opportunities for employee input. Ten states have implemented policies related to scheduling predictability or employee input (see map below), but policies related to adequacy of hours and compensation have been implemented only at the local level, in six major cities in California, New York, and Washington. The details of these policies, including who is eligible for coverage and what types of protections are guaranteed, vary widely at both the state and local levels.¹⁰



Ten States Have Implemented Fair Work Scheduling Policies

Source: As of 2019. National Women's Law Center. For more information please see the Methods and Sources section of <u>pn3policy.org</u>.

The limited body of research on these policies is insufficient for drawing conclusions about state-level policy effectiveness for improving outcomes, particularly among families and children in the prenatal-to-3 period. Corporate case studies¹¹ and ongoing local evaluations¹² indicate that fair work scheduling policies may be effective in stabilizing schedules, but research on the impacts of these policies on parent and child outcomes is not yet available. Emerging research from initiatives like the Shift Project—which collects data on scheduling practices and worker wellbeing at large retail firms—will be critical to ongoing efforts to understand how work policies affect families and young children. Similarly, research on recent statewide fair scheduling policies will be key to understanding how states might best support policies that remove obstacles to stable employment and ease the conflicting demands of working and parenting.

Two-generation programs for parental employment: Two-generation programs for parental employment are services and programs that serve both children and their parents at the same time, aiming to empower parents to secure and retain gainful employment while providing children with support needed for successful early development. Such programs maximize the benefit to families by ensuring parents are able to access employment training and other support services without sacrificing quality care for their children. By helping parents find and retain employment, this approach helps to ensure that parents have the resources to foster a safe and healthy environment for their children's development.

Current state efforts to support this approach include development of agency partnerships to link child- and parentserving programs; establishment of statewide pilot programs; dedication of full-time staff positions to two-generation programming; and the creation, through legislation, of state commissions to develop recommendations on twogeneration policies. Support for two-generation employment programs also is emerging at the local level. Approaches to strategy and content vary considerably across these efforts, as well as from state to state.^{13,14}

The current body of research on two-generation employment programs is insufficient for drawing conclusions about program effectiveness, particularly at the state level. Current findings from the limited body of evidence are mixed, likely due to wide variation in the types of programming evaluated, as well as low and inconsistent study participation.^{15,16,17,18} Future research should explore the mechanisms through which two-generation programs can successfully support families of young children, as well as how states can best support these programs.



Search the new Prenatal-to-3 Policy Clearinghouse for an ongoing inventory of rigorous evidence reviews at **pn3policy.org/clearinghouse**.

SUFFICIENT HOUSEHOLD RESOURCES

Parents have the financial and material resources they need to provide for their families.



WHY ARE SUFFICIENT HOUSEHOLD RESOURCES AN IMPORTANT PRENATAL-TO-3 GOAL?

Experiences of financial hardship during early childhood can disrupt healthy brain development and compromise the foundation for long-term learning, behavior, and health.¹ Approximately 1 in 5 young children in the US, or roughly 19.5% of children under age 3, live in families with annual household incomes of less than 100% of the federal poverty level (FPL), or \$24,300 per year for a family of four.² These families face great difficulties just with meeting basic needs and are likely to face challenges related to adequate shelter, nutrition, and medical care.³ They also are more likely to experience stress, which can compromise parents' ability to engage in the warm, responsive interactions that are critical to infants' and toddlers' healthy development.^{4,5}

The poverty rate varies considerably by race and ethnicity, and children of color are disproportionately likely to face challenges related to financial hardship.⁶ Job losses stemming from the COVID-19 crisis have deepened economic instability while also perpetuating this racial disparity. A May 2020 survey by the Kaiser Family Foundation found that Black (48%) and Hispanic (46%) adults were more likely than White adults (23%) to report that, due to COVID-19, they were having trouble paying for food, housing, utilities, credit card bills, or health care expenses.⁷ Financial hardship is a major predictor of food insecurity, which can lead to malnutrition and have negative impacts on children's health.^{8,9,10} Moreover, families with low incomes are more likely to live in crowded housing, which increases the risk of housing instability or homelessness and is often associated with chaotic environments that do not promote healthy child development.¹¹

To limit young children's exposure to these stressors, which can have serious and long-lasting consequences for health and wellbeing, states can pursue policies and strategies to ensure that parents have adequate financial and material resources. According to our comprehensive reviews of rigorous research, several solutions currently in place at the state level—including earned income tax credits and minimum wage policies—have proven effective at increasing household resources. Next we provide an overview of these and other solutions, as well as the outcomes states should track to measure their progress toward achieving this goal.

HOW ARE STATES CURRENTLY MEETING THIS PRENATAL-TO-3 GOAL?

Three outcome measures illustrate whether families with young children have sufficient household resources: (1) child poverty, (2) crowded housing, and (3) food insecurity. These outcomes vary considerably across states, as well as by race and ethnicity.

Sufficient Household Resources Outcome Measures

Sufficient Household Resources Child Poverty Crowded Housing

Food Insecurity

Child Poverty

% of children under age 3 whose family lives below 100% of the federal poverty level

Median state value: 18.2%

Crowded Housing

% of children under age 3 living in a household in which there is more than one person per room or there are more than two people per bedroom

Median state value: 15.3%

Food Insecurity

% of households with at least one child under age 3 who reported experiencing low or very low child food security

Median state value: 6.9%

All three outcome measures were calculated intentionally in the negative direction to demonstrate where states have room for improvement and to help states prioritize the PN-3 policy goals that are lagging. Out of 51 states, the worst state ranks 51st, and the best state ranks first. The median state indicates that half of states have outcomes that measure better than that state, whereas half of states have outcomes that are worse.



IMPACT OF COVID-19

The data used in this Roadmap predate the COVID-19 pandemic, and it is highly likely that the outcomes for infants, toddlers, and their parents have worsened substantially due to the collapse of the economy and the unprecedented strains on our child care, health care, and social service systems. The health crisis has disproportionately had a negative impact on families of color, exacerbating the racial and ethnic inequities in the wellbeing of infants and toddlers and their parents.

Child Poverty

% of children under age 3 whose family lives below 100% of the federal poverty level

Nearly 1 out of 5 US children under age 3 lives in poverty, which can lead to a host of negative health and developmental outcomes in the immediate and long term. Infants and toddlers who live in the five worst states are up to 3 times as likely to live in poverty as children under age 3 who live in the five best states. Black children are over 3 times as likely as White children to live in poverty, and Hispanic children have rates of child poverty that are more than twice the rate of White children.

5 BEST STATES				5 WORST	STATES	
Rank	State	% Child Poverty	Rank	State	% Child Poverty	VARIATION BY RACE & ETHNICITY IN THE US
1	UT	10.4%	51	MS	30.8%	White 12.0%
2	MD	11.3%	50	AR	30.6%	Other 16.7%
3	CO	11.4%	49	NM	30.3%	US Average 19.5%
4	VT	11.9%	48	AL	29.9%	Hispanic 27.0%
5	MN	12.1%	47	TN	27.7%	Diack 30.070



See Appendix for a table of state variation in Sufficient Household Resources outcomes and corresponding ranks for each state. Source: 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS). For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.
Crowded Housing

% of children under age 3 living in a household in which there is more than one person per room or there are more than two people per bedroom

5 WORST STATES

Crowded housing is linked to housing instability and chaotic environments that impede healthy child development. Children living in the five worst states are 3 to 4 times more likely to live in crowded housing compared to children living in the five best states. Rates vary considerably by race and ethnicity: More than one-third of Hispanic children under age 3 live in crowded housing, compared to nearly a quarter of Black children and 11.5% of White children.

5 BEST STATES % Crowded Rank State Housing Rank

VT

PA

IA

ND

RI

1

2

3

4

5

% Crowded State Rank Housing 9.0% 51 HI 38.1% CA 35.0% 10.6% 50 49 NY 31.2% 11.1% 11.2% 48 AZ 28.2% 11.7% 47 NM 27.9%

VARIATION BY RACE & ETHNICITY IN THE US





Source: 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS); for additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Food Insecurity

% of households with at least one child under age 3 who reported experiencing low or very low child food security

Adequate nutrition is essential to promoting healthy development in infants and toddlers. Approximately 7% of children under age 3 lack food security, leaving them vulnerable to malnutrition and long-term health problems. In the five worst states, more than 1 in 10 children is food insecure, and the rates vary considerably by race and ethnicity. Food insecurity among Black children under age 3 is 3 times greater than among White children, and Hispanic children are twice as likely as their White counterparts to be food insecure.

	5 BEST STATES			5 WORST	STATES	
Rank	State	% Food Insecure	Rank	s State	% Food Insecure	VARIATION BY RACE & ETHNICITY IN THE US
1	KS	0.9%	51	NM	13.1%	White 4.5%
1	SC	0.9%	50	ОК	12.6%	Other 7.2%
3	UT	3.0%	48	TN	10.4%	US Average 7.2%
4	SD	3.3%	48	AZ	10.4%	Hispanic 9.2%
5	VT	3.5%	47	KY	9.7%	Diack 14.370



Source: 2016-2018 Current Population Survey (CPS), Food Security Supplement Public Use Microdata Sample (PUMS); for additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

WHAT ARE THE MOST EFFECTIVE POLICIES AND STRATEGIES TO IMPACT SUFFICIENT HOUSEHOLD RESOURCES?



The Difference Between Policies and Strategies in This Roadmap

Effective policies have a demonstrated positive impact on at least one prenatal-to-3 goal, and the research provides clear guidance on legislative or regulatory action that states can take to adopt and implement the policy.

By contrast, **effective strategies** have demonstrated positive impacts on prenatal-to-3 outcomes, but the research does not provide clear guidance to states on how to effectively implement the program or strategy at scale.



More extensive information on the details and impacts of each policy and strategy, and states' progress toward implementing them, can be found in subsequent sections of this Roadmap, in the Prenatal-to-3 Policy Clearinghouse at pn3policy.org, and in each state's Prenatal-to-3 State Policy Roadmap.

Examples of Impact

Effective state policies and strategies to impact Sufficient Household Resources

EFFECTIVE POLIC	EFFECTIVE POLICIES						
Expanded Income Eligibility for Health Insurance	 Medicaid expansion led to a 7.1 percentage point decrease in problems paying medical bills (K) Medicaid expansion led to a 3.8 percentage point decrease in delaying health care because of cost (C) 						
Reduced Administrative Burden for SNAP	• Participation in SNAP reduced household food insecurity by up to 36% in households with children ¹²						
Paid Family Leave	 Access to paid family leave led to a \$3,400 increase in household income (M) Access to paid family leave led to a 2 percentage point reduction in the poverty rate, with the greatest effect for less-educated, low-income, single mothers (M) 						
State Minimum Wage	 A 10% minimum wage increase reduced poverty by 5.9% for children under age 18 with parents with no college degree and 9.6% for children under age 6 (Y) A 10% minimum wage increase boosted earnings between 1.3% and 8.3%, depending on the study (A,K) 						
State Earned Income Tax Credit	 States with a refundable EITC had child poverty rates that were 40% lower overall than states without a refundable state credit (A) State EITCs boosted mothers' annual wages by 32% (B) A \$1,000 increase in the state and federal credit amount led to a \$2,000 increase in annual pretax family earnings during ages 0 to 5 (HH) 						

EFFECTIVE STRATEGIES

Child Care Subsidies • Subsidy receipt led to an increase in monthly earnings by 105% (E)

Note: The letters in parentheses in the table above correspond to the findings from strong causal studies included in the comprehensive evidence reviews of the policies and strategies. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at pn3policy.org.

Policy Variation Across States

Have states adopted and fully implemented the effective policies to impact **Sufficient Household Resources**?

EFFECTIVE POLICIES

Expanded Income Eligibility for Health Insurance

37 states have adopted and fully implemented the Medicaid expansion under the Affordable Care Act (ACA) that includes coverage for most adults with incomes up to 138% of the federal poverty level (FPL).



Sources: As of October 1, 2020. Medicaid state plan amendments (SPAs) and Section 1115 waivers.

Paid Family Leave

5 states have adopted and fully implemented a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care.



Sources: As of October 1, 2020. State statutes and legislation on paid family leave.

Reduced Administrative Burden for SNAP

32 states have a median recertification interval that is 12 months or longer among households with SNAP-eligible children under age 18.



Sources: As of 2018. United States Department of Agriculture (USDA) Fiscal Year 2018 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel.

State Minimum Wage

19 states have adopted and fully implemented a minimum wage of \$10 or greater.



Sources: As of October 1, 2020. State labor statutes and state labor department websites.

State Earned Income Tax Credit

18 states have adopted and fully implemented a refundable EITC of at least 10% of the federal EITC for all eligible families with any children under age 3.



Sources: As of October 1, 2020. State income tax statutes.

Strategy Variation Across States

Have states made substantial progress toward implementing the effective strategy to impact **Sufficient Household Resources**?

EFFECTIVE STRATEGIES

Child Care Subsidies

1 state's base reimbursement rates (for infants and toddlers in center-based care and family child care) meet the federally recommended 75th percentile using a recent market rate survey.



Sources: As of July, 12020. State children and families' department websites and state market rate surveys.

Note: Some states in the "no" category for Policy Variation Across States have adopted a policy, but they have not fully implemented it, or they do not provide the level of benefit, indicated by the evidence reviews, necessary to impact the PN-3 goal. Many states in the "no" category for Strategy Variation Across States have implemented aspects of the effective strategies, but states are assessed relative to one another on making substantial progress. For additional information see <u>pn3policy.org</u>.

WHAT OTHER SOLUTIONS ARE STATES PURSUING THAT CAN HELP BUILD THE EVIDENCE BASE?

Beyond the policies and strategies proven effective by the current research, states also are pursuing other approaches that hold promise for improving sufficient household resources; these approaches have not yet accumulated enough rigorous research to enable drawing conclusions on their effectiveness, or the Prenatal-to-3 Policy Impact Center has not yet conducted a comprehensive evidence review for the approach.

Child tax credits: The federal child tax credit (CTC) aims to increase household resources by providing families with a credit worth \$2,000 per citizen child under age 17 to help offset tax liability or, if the value of the credit exceeds the tax liability, to provide a refund of up to \$1,400 per child.¹³ A smaller credit is also available for older children and dependents and for families with annual household incomes exceeding \$200,000, but parents of young children typically receive the maximum credit.¹⁴

As of 2019, six states have chosen to implement their own CTC, the value of which can be, but is not always, a percentage of the federal credit.¹⁵ Only two states, Colorado and New York, have made their CTCs refundable, which allows for a refund to boost household resources even in the absence of tax liability. Although state-level child tax credits have been estimated to have significant positive impacts on poverty,¹⁶ no strong causal research to date has examined the unique impacts of these state credits on outcomes for young children and their families, especially as distinct from the impacts of other tax credits for families.

Child care tax credits: The federal Child and Dependent Care Tax Credit (CDCTC) helps to subsidize child care expenses by providing a nonrefundable credit for 20% to 35% of \$3,000 in child care expenses per child to offset tax liability among families in which the adults are working or attending school.¹⁷ The amount of the credit varies by household composition and income level, with families with adjusted gross annual incomes below \$15,000 receiving the maximum credit (\$1,050 for one child or \$2,100 for two or more children).¹⁸ States can choose to implement their own CDCTC, the value of which is often a percentage of the federal credit, and can determine their own eligibility requirements.¹⁹ Further, states can choose to make their credit refundable, providing tax-filing families with a refund to increase household resources, even in the case of no tax liability.

As the table on the next page shows, as of March 2020, 24 states have adopted state-level CDCTCs, of which 11 are refundable. Most research to date examines the impact of the federal CDCTC; further research is needed to evaluate the impact of state-level CDCTCs, particularly refundable credits, on child and family outcomes.

Unconditional cash transfers: Research has shown that family resources in infancy can have lasting impacts on child development.^{20,21} To experimentally test whether providing income supports to families with young children helps to support healthy development, researchers are conducting a randomized control trial of a monthly, unconditional cash payment program—called Baby's First Years—among a sample of low-income mothers in four sites across the country (New York City, New York; New Orleans, Louisiana; Omaha, Nebraska; and Twin Cities, Minnesota).²² A cash gift of \$333 or \$20 per month, randomly assigned, will be provided to families for the first 40 months of a child's life. Researchers hypothesize that the cash gifts will increase household resources for goods and services to facilitate optimal development (e.g., better housing, nutrition, or child care), reduce parental stress, and improve parent-child interactions. Data are being collected through baseline interviews, home visits, lab assessments, and administrative records, and collection is expected to be complete in July 2022. Early qualitative and quantitative findings at child age 10 to 12 months are expected soon and will build the evidence base on how to effectively increase household resources to promote better outcomes for young children.

Refundable Child Tax Credit	Nonrefundable Child Tax Credit	Refundable Child Care Tax Credit	Nonrefundable Child Care Tax Credit
Colorado	California	Arkansas	California
New York	Idaho	Colorado	Delaware
	North Carolina	Hawaii	District of Columbia
	Oklahoma	Iowa	Georgia
		Louisiana	Kansas
		Maine	Kentucky
		Minnesota	Maryland
		Nebraska	New Jersey
		New Mexico	Ohio
		New York	Oklahoma
		Vermont	Oregon
			Rhode Island
			South Carolina
2 states	4 states	11 states	13 states

State Has a Child Tax Credit or Child Care Tax Credit

Source: As of March 2020; Tax Credits for Workers and Their Families. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.



HEALTHY AND EQUITABLE BIRTHS

Children are born healthy to healthy parents, and pregnancy experiences and birth outcomes are equitable.



WHY ARE HEALTHY AND EQUITABLE BIRTHS AN IMPORTANT PRENATAL-TO-3 GOAL?

Setbacks and trauma that children and families experience due to often preventable pregnancy and birth complications can have lifelong consequences for children's health and wellbeing. Many babies in the US are born thriving, but each child who is not may need substantial resources and care not just to survive infancy but to meet the challenges beyond.¹ A child born prematurely arrives before the 37th week of pregnancy, a time during which the rapidly developing brain and other organs still benefit dramatically from the unique advantages of the intrauterine environment.² Premature birth increases the likelihood of low birthweight (less than 2,500 grams), which predisposes children to breathing and feeding difficulties, vision and hearing problems, developmental delays, and learning disabilities, among other short- and long-term complications.³

Adverse birth outcomes disproportionately affect Black families. Compared to White and Hispanic infants and mothers, Black infants are more likely to be born low birthweight,⁴ and Black mothers are more than twice as likely to die in childbirth⁵ or experience severe maternal morbidity⁶—regardless of education level or socioeconomic status.⁷ A woman needs adequate health care over her life course to ensure a healthy pregnancy, and disparities can be a reflection of exposure to adversity across the lifespan.⁸ Supporting women throughout the life course increases the likelihood that they will have healthy pregnancies, fewer birth complications, and healthier newborns.⁹

Maternal Mortality Rate

The number per 100,000 women who were pregnant who died while pregnant, or within 42 days of pregnancy, "from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes"

Hispanic:	White, non-Hispanic:	US Average:	Black, non-Hispanic:
11.8 deaths per 100,000	14.9 deaths per 100,000	17.4 deaths per 100,000	37.3 deaths per 100,000

CDC National Vital Statistics Report: Maternal Mortality in the United States: Changes in Coding, Publication, and Data Release, 2018. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Our comprehensive reviews of rigorous research show that solutions currently pursued by some states, including Medicaid expansion and support of group prenatal care programs, can be effective in promoting healthy and equitable pregnancy and birth experiences.

HOW ARE STATES CURRENTLY MEETING THIS PRENATAL-TO-3 GOAL?

Three outcome measures illustrate the health of babies at birth, which is often also an indicator of maternal health during the perinatal period: (1) preterm births, (2) low birthweight, and (3) infant mortality. Birth outcomes vary considerably across states, as well as by race and ethnicity. Maternal mortality and morbidity are also important indicators of healthy and equitable births, but the sample sizes of the data are too small to measure these outcomes at the state level. Racial and ethnic disparities in these outcomes reveal long-standing patterns of racism and policy choices within states that discriminate against families of color. Eliminating these disparities must be a goal for all states.



Healthy and Equitable Births Outcome Measures

Preterm Births

% of babies born prior to 37 weeks of gestation

Median state value: 9.8%

Low Birthweight

% of babies born weighing less than 5.5 pounds (2,500 grams)

Median state value: 8.3%

Infant Mortality Rate

Number of infant deaths within the first year per 1,000 live births

Median state value: 5.9

Out of 51 states, the worst state ranks 51st, and the best state ranks first. The median state indicates that half of states have outcomes that measure better than that state, whereas half of states have outcomes that are worse.

IMPACT OF COVID-19

The data used in this Roadmap predate the COVID-19 pandemic, and it is highly likely that the outcomes for infants, toddlers, and their parents have worsened substantially due to the collapse of the economy and the unprecedented strains on our child care, health care, and social service systems. The health crisis has disproportionately had a negative impact on families of color, exacerbating the racial and ethnic inequities in the wellbeing of infants and toddlers and their parents. COVID-19 may exacerbate disparities in pregnancy and birth outcomes not only because of disparate health impacts on communities of color but because the pandemic poses other unique challenges to families of color as well; for example, stricter visitation limits during deliveries can frustrate parents' efforts to enlist the help of a doula to ensure a positive birth experience.10,11



Preterm Births

% of babies born prior to 37 weeks of gestation

Preterm delivery is associated with subsequent negative health and developmental outcomes for children, and it is often an indication of poor maternal health during the pregnancy. Approximately 1 out of every 10 babies is born before the 37th week of gestation in the US, but that number varies considerably across states; for example, more than 14% of babies are born preterm in Mississippi, compared to less than 8% of babies in Oregon. The percentage of Black infants who are born preterm is more than 50% higher than White or Hispanic infants.

5 BEST STATES			5 WORST STATES				
Rank	State	% Preterm	Rank	State	% Preterm	VARIATION BY IN	RACE & ETHNICITY
1	OR	7.8%	51	MS	14.2%	White	9.1%
2	NH	8.3%	50	LA	13.0%	Other	9.4%
2	WA	8.3%	49	AL	12.5%	Hispanic	9.7%
4	VT	8.5%	48	WV	11.8%	US Average	10.0%
5	ME	8.6%	47	AR	11.6%	Diack	14.170
Rank 1 2 2 4 5	State OR NH WA VT ME	% Preterm 7.8% 8.3% 8.3% 8.5% 8.6%	Rank 51 50 49 48 47	State MS LA AL WV AR	% Preterm 14.2% 13.0% 12.5% 11.8% 11.6%	White Other Hispanic US Average Black	P.1% 9.1% 9.4% 9.7% 10.0% 1



See Appendix for a table of state variation in Healthy and Equitable Births outcomes and corresponding ranks for each state. Source: Vital Statistics from CDC WONDER 2018 Natality Expanded. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Low Birthweight

% of babies born weighing less than 5.5 pounds (2,500 grams)

Being born low birthweight is associated with a host of health risks in the immediate and longer term; in the US, 8.3% of all infants are born low birthweight, but babies born in the five worst states are nearly twice as likely to be born low birthweight as those who are born in the five best states, and Black babies are more than twice as likely to be born low birthweight as compared to White or Hispanic babies.

5 BEST STATES				5 WORST	STATES	
Rank	State	% Low Birthweight	Rank	s State	% Low Birthweight	VARIATION BY RACE & ETHNICITY IN THE US
1	AK	5.9%	51	MS	12.1%	White 6.9%
2	ND	6.6%	50	LA	10.8%	Hispanic 7.5%
2	SD	6.6%	49	AL	10.7%	US Average 8.3%
2	WA	6.6%	48	GA	10.1%	Black 14.1%
5	OR	6.7%	47	DC	10.0%	



Source: Vital Statistics from CDC WONDER 2018 Natality Expanded. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Infant Mortality Rate

Number of infant deaths within the first year per 1,000 live births

In the six worst states, twice as many children die in their first year of life as in the six best states. Black families are disproportionately likely to experience this traumatic loss: The number of Black infants who die is double the number of White or Hispanic infants.

6 BEST STATES				6 WORS	T STATES	
Rank	State	# of Infant Deaths/ 1,000 Births	Rank	State	# of Infant Deaths/ 1,000 Births	VARIATION BY RACE & ETHNICITY IN THE US
1	NH	3.6	51	MS	8.3	White 4.6
2	NJ	3.9	50	LA	7.6	Hispanic 4.9
3	CA	4.2	49	AR	7.5	US Average 5.7
3	СТ	4.2	48	SC	7.2	Other NA
3	MA	4.2	46	WV	7.1	
3	OR	4.2	46	ОК	7.1	



Sources: **State Estimates:** CDC National Center for Health Statistics (NCHS); States of the States: Infant Mortality Rates by State; **National Estimates:** National Vital Statistics Reports, Infant mortality in the United States, 2018: Data from the period linked birth/infant death file. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

WHAT ARE THE MOST EFFECTIVE POLICIES AND STRATEGIES TO IMPACT HEALTHY AND EQUITABLE BIRTHS?



The Difference Between Policies and Strategies in This Roadmap

Effective policies have a demonstrated positive impact on at least one prenatal-to-3 goal, and the research provides clear guidance on legislative or regulatory action that states can take to adopt and implement the policy.

By contrast, **effective strategies** have demonstrated positive impacts on prenatal-to-3 outcomes, but the research does not provide clear guidance to states on how to effectively implement the program or strategy at scale.



Services

More extensive information on the details and impacts of each policy and strategy, and states' progress toward implementing them, can be found in subsequent sections of this Roadmap, in the Prenatal-to-3 Policy Clearinghouse at pn3policy.org, and in each state's Prenatal-to-3 State Policy Roadmap.

Examples of Impact

Effective state policies and strategies to impact Healthy and Equitable Births

EFFECTIVE POLIC	EFFECTIVE POLICIES					
Expanded Income Eligibility for Health Insurance	 Medicaid expansion led to 52.6 fewer infant deaths per 1,000 live births among Hispanic infants (V) Medicaid expansion led to 16.3 fewer maternal deaths per 100,000 live births among Black mothers (6.7 per 100,000 fewer overall) (J) 					
State Minimum Wage	 A 10% increase in the minimum wage reduced infant mortality by 3.2% (H) A \$1 increase in the minimum wage reduced births to adolescents by 2% (B) A \$1 minimum wage increase led to a 1% decrease in low birthweight (Q) 					
State Earned Income Tax Credit	 State EITC led to increases in birthweight of between 16 to 104 grams, depending on the generosity level (B, CC) In states with generous, refundable credits, Black mothers saw the greatest reductions in low birthweight (up to 3,760 fewer babies born low birthweight annually) (II) Increasing the maximum state and federal EITC by \$1,000 during childhood decreased the likelihood of giving birth before age 20 by 2% (BB) 					

EFFECTIVE STRATEGIES

Group Prenatal Care • Group prenatal care had both positive and null impacts on the rate of preterm (G, F) and low birthweight births (A, O)

Note: The letters in parentheses in the table above correspond to the findings from strong causal studies included in the comprehensive evidence reviews of the policies and strategies. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at pn3policy.org.

Policy Variation Across States

Have states adopted and fully implemented the effective policies to impact **Healthy and Equitable Births**?

EFFECTIVE POLICIES

Expanded Income Eligibility for Health Insurance

37 states have adopted and fully implemented the Medicaid expansion under the Affordable Care Act (ACA) that includes coverage for most adults with incomes up to 138% of the federal poverty level (FPL).



Sources: As of October 1, 2020. Medicaid state plan amendments (SPAs) and Section 1115 waivers.

State Minimum Wage

19 states have adopted and fully implemented a minimum wage of \$10 or greater.



Sources: As of October 1, 2020. State labor statutes and state labor department websites.

State Earned Income Tax Credit

18 states have adopted and fully implemented a refundable EITC of at least 10% of the federal EITC for all eligible families with any children under age 3.



Sources: As of October 1, 2020. State income tax statutes.

Note: Some states in the "no" category for Policy Variation Across States have adopted a policy, but they have not fully implemented it, or they do not provide the level of benefit, indicated by the evidence reviews, necessary to impact the PN-3 goal. Many states in the "no" category for Strategy Variation Across States (on the next page) have implemented aspects of the effective strategies, but states are assessed relative to one another on making substantial progress. For additional information see <u>pn3policy.org</u>.

Strategy Variation Across States

Have states made substantial progress toward implementing the effective strategy to impact **Healthy and Equitable Births**?

EFFECTIVE STRATEGIES

Group Prenatal Care

10 states support the implementation of group prenatal care financially through enhanced reimbursements for group prenatal care providers.



Sources: As of June 8, 2020. State health department websites and proposed and passed state legislation.





Sign up for news and updates at pn3policy.org/subscribe

WHAT OTHER SOLUTIONS ARE STATES PURSUING THAT CAN HELP BUILD THE EVIDENCE BASE?

Approximately 700 women die in childbirth each year in the US.¹² Most of these new mothers' deaths—an estimated 60%—are considered preventable. Black families experience this tragedy in disproportionate numbers.¹³ Although maternal mortality has fallen globally, the maternal mortality rate in the US increased between 50% and 70% over the past 20 years, and the rate of severe maternal morbidity has doubled.¹⁴ Among developed countries, the US stands alone in these troubling upward trajectories.¹⁵

Despite the urgency of this issue, lack of adequate state-level data on maternal mortality and morbidity has frustrated efforts to meaningfully parse the varied causes of the problem and to evaluate states' strategies to combat it. Observational studies point to some success among states' varied strategies, which include support of perinatal quality collaboratives, toolkits and bundles to guide medical practice, funding of doulas, and implicit-bias training. However, conclusions about their effectiveness or how best to implement them, either individually or in combination, are difficult to draw, given the lack of rigorous research.

To date, California is the only state that has successfully reversed trends in maternal mortality. Between 2006 and 2013, during a period of collaboration between the California Department of Public Health, the California Maternal Quality Care Collaborative, and the California Hospital Association, the state's rate of maternal mortality dropped by 50%, even as the national rate continued to rise.¹⁶ However, research shows that this drop did not include an overall reduction in racial disparities in maternal mortality and morbidity.¹⁷ Since that time, the California Maternal Quality Care Collaborative has launched the California Birth Equity Collaborative, and an evaluation of this collaborative is ongoing.¹⁸

Due to the urgency of this issue, as well as states' considerable interest in identifying effective solutions, it is imperative that states continue to improve data collection related to maternal mortality and morbidity, and that research continue to move forward on promising solutions and on policies to support them. In the absence of rigorous research, California's collaborative approach and use of rapidly updated and accessible data systems might serve as a model to other states.

Perinatal Quality Collaboratives and Maternal Mortality Review Committees (PQCs and MMRCs): These statewide, multidisciplinary networks promote evidence-based clinical practices by bringing key stakeholders together, producing issue briefs and strategic plans, and holding symposia and other events. PQCs often serve as the "action arm" of MMRCs, which operate at the state level to identify and analyze maternal deaths, disseminate findings, and develop recommendations. PQCs often translate MMRC findings into clinical reforms. Together, PQCs and MMRCs are thought to improve birth outcomes through systemwide changes across a state. State governments' involvement in these efforts include key leaders' participation in PQCs, and states can also use legislation to mandate and fund MMRCs.¹⁹ Federal grants also provide funding to establish and support existing MMRCs in states.²⁰ Currently, most states have active PQCs and MMRCs; the table on the next page lists those states that do not.

Participation in the Alliance for Innovation on Maternal Health: States that wish to support efforts to reduce maternal mortality and morbidity can enroll and participate in the national Alliance for Innovation on Maternal Health (AIM), which works to bring maternal health improvement efforts at the national, state, and hospital level into alignment.²¹ For example, AIM provides hospitals with toolkits and bundles of medical information—generally articles, guidelines, and educational documents—about evidence-based practices for improving specific patient outcomes. A bundle might address a specific medical cause (such as preeclampsia or obstetric hemorrhage) of maternal mortality and morbidity, for example. In contrast to a PQC, a toolkit or bundle is thought to improve birth outcomes not through systemwide changes but through adjustments to practices in particular hospital settings. To date, research on this approach is limited to observational studies; although research suggests that toolkits and bundles can help reduce maternal morbidity, more rigorous studies would help in drawing firm conclusions about causality.^{22,23} The majority of states participate in AIM, but 22 still do not.

State Does NOT Participate in Initiative to Reduce Maternal Mortality and Morbidity

Does NOT Have an Active Perinatal Quality Collaborative	Maternal Mortality Review Committee is NOT Reviewing Cases	Does NOT Participate in the AIM Program
Arkansas	Maine	Alabama
District of Columbia	Nevada	Arkansas
Idaho	North Dakota	Connecticut
Iowa	Rhode Island	District of Columbia
Kentucky	South Dakota	Hawaii
Montana	Vermont	Idaho
Nevada	Wyoming	lowa
North Dakota		Kansas
Rhode Island		Kentucky
South Dakota		Maine
Wyoming		Minnesota
		Montana
		Nevada
		New Hampshire
		North Dakota
		Ohio
		Pennsylvania
		Rhode Island
		South Dakota
		Vermont
		Wisconsin
		Wyoming
11 states	7 states	22 states

Sources:

PQC: As of January 2020. Centers for Disease Control and Prevention.

MMRC: As of May 2020. Centers for Disease Control and Prevention.

AIM: As of May 2020. Council on Patient Safety in Women's Health Care.

For additional information, please refer to the Methods and Sources section of pn3policy.org.

Doula funding: Doulas are trained, typically nonmedical, professionals who provide physical, emotional, and educational support to parents before, during, and immediately following childbirth. Doulas can work alongside medical professionals to help advocate for patients' needs.²⁴ They work not toward system- or hospital-level change, but rather toward improving birth outcomes for individual patients. Their support and advice are thought not only to improve patients' physical and emotional wellbeing, thereby increasing the likelihood of a healthy pregnancy and birth, but also to minimize, through direct patient advocacy, the likelihood of miscommunication, cultural differences, or biases affecting the quality of medical care a patient receives. Observational studies to date have found positive impacts of doulas on birth outcomes; however, to better understand these impacts and how best to implement doula support, more rigorous research is needed.^{25,26} States can act now to expand patients' access to doula services through Medicaid funding, but currently only four states allow Medicaid to reimburse for doula care: Indiana, Minnesota, New Jersey, and Oregon.²⁷

Implicit-bias training: In an effort to combat disparities in adverse birth outcomes, implicit-bias training teaches medical professionals how to recognize and understand racial and cultural differences and biases, as well as how to interact with patients in a way that is sensitive to these differences and accommodates patients' diverse needs.²⁶ Thought to improve patient outcomes by improving quality of care, this intervention can be folded into toolkits and bundles, an approach taken by AIM and the California Maternal Quality Care Collaborative (CMQCC).^{29,30} States also can provide financial support for these efforts, as well as legislatively mandate that professionals participate in training; for example, California has enacted legislation mandating implicit-bias training for perinatal health care professionals,³¹ but more rigorous evaluations are needed to determine the causal impact these trainings can have on improving birth outcomes.



GOAL

PARENTAL HEALTH AND EMOTIONAL WELLBEING

Parents are mentally and physically healthy, with particular attention paid to the perinatal period.



WHY IS PARENTAL HEALTH AND EMOTIONAL WELLBEING AN IMPORTANT PRENATAL-TO-3 GOAL?

Parents' physical and mental health affects their ability to care for their children and engage in the warm, responsive interactions that infants and toddlers need for long-term healthy development. Yet parents often do not have the resources they need to care for themselves adequately as they care for their children, particularly during the perinatal period, which can pose unique health challenges to families. For example, between 7% and 15% of postpartum women experience depressive symptoms.^{1,2} However, not all mothers get the help they need. A study by the Centers for Disease Control found that among women who had recently given birth, one in eight reported that they had not been asked about depression during postpartum visits.³

Due to the social determinants of health—defined by the World Health Organization as "the conditions in which people are born, grow, live, work and age"—parents who experience substantial adversity are at higher risk of facing physical and mental health challenges.⁴ These risks perpetuate disparities in children's health outcomes. For example, due to barriers such as lack of insurance, not all women receive adequate prenatal care, which is critical to ensuring healthy birth outcomes, and women of color are least likely to receive adequate prenatal care.⁵ The effects of COVID-19 are exacerbating these racial and socioeconomic disparities. Data show that rates of hospitalization for people who are Hispanic, American Indian or Alaska Native, or Black are 4 to 5 times higher than among White people.⁶ Other effects of the health crisis, such as stress due to job insecurity and challenges with securing child care, also pose a threat to the mental and physical health of parents who are trying to care for young children.

Because physical and mental health are intertwined, interventions that help relieve parents' stress also can improve physical health outcomes. Some policies—such as expanded income eligibility for health insurance, paid family leave, and higher state minimum wage—impact parental health indirectly by increasing financial resources. Other strategies, such as group prenatal care, directly affect parental health by helping parents build social support. In working toward this goal, states can measure progress by tracking outcomes, such as maternal mental health and parenting support, particular to children ages 0 to 3.

HOW ARE STATES CURRENTLY MEETING THIS PRENATAL-TO-3 GOAL?

Two outcome measures illustrate parents' health and wellbeing: (1) maternal mental health and (2) parenting support. These outcomes vary considerably across states, and parenting support varies by race and ethnicity, as well.

Parental Health and Emotional Wellbeing Outcome Measures

Poor Maternal Mental Health

% of children under age 3 whose mother reports fair or poor mental/emotional health Median state value: 4.3%

Low Parenting Support

% of children under age 3 whose parent lacks emotional parenting support Median state value: 14.4%

Both outcome measures were calculated intentionally in the negative direction to demonstrate where states have room for improvement and to help states prioritize the PN-3 policy goals that are lagging. Out of 51 states, the worst state ranks 51st, and the best state ranks first. The median state indicates that half of states have outcomes that measure better than that state, whereas half of states have outcomes that are worse.



IMPACT OF COVID-19

The data used in this Roadmap predate the COVID-19 pandemic, and it is highly likely that the outcomes for infants, toddlers, and their parents have worsened substantially due to the collapse of the economy and the unprecedented strains on our child care, health care, and social service systems. The health crisis has disproportionately had a negative impact on families of color, exacerbating the racial and ethnic inequities in the wellbeing of infants and toddlers and their parents.

Parenting Support

Poor Maternal Mental Health

% of children under age 3 whose mother reports fair or poor mental/emotional health

Maternal mental health is a strong predictor of healthy child development. In the five worst states, 8% to 10% of children under age 3 have a mother who has mental health concerns, compared to approximately 2% of children in the five best states. Although rates of maternal mental health vary substantially across states, rates do not vary as substantially by race and ethnicity.

	5 BEST STATES			5 WORS	F STATES		
Rank	State	% Poor Mental Health	Rank	State	% Poor Mental Health	VARIATION BY	RACE & ETHNICIT
1	NJ	1.2%	51	VT	10.2%	Other	3.6%
2	CO	1.3%	50	ОК	10.0%	White	4.2%
3	PA	2.0%	49	KY	9.2%	US Average	4.5%
4	NY	2.1%	48	MT	8.9%	Black Hispanic	4.5%
5	SD	2.2%	47	ОН	8.3%		



See Appendix for a table of state variation in Parental Health and Emotional Wellbeing outcomes and corresponding ranks for each state. Source: 2016-2018 National Survey of Children's Health (NSCH). For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Ran

1

2

2

4

5

Low Parenting Support

% of children under age 3 whose parent lacks emotional parenting support

In the five worst states, approximately one-quarter of children under age 3 have a parent who reports that they do not have anyone they can turn to for emotional support with parenting, compared to less than 10% in the five best states. Rates of low parenting support vary substantially by race and ethnicity, with nearly one-third of Hispanic children, over 20% of Black children, and less than 10% of White children under age 3 living with a parent who lacks emotional support.

5 WORST STATES

5 BEST STATES

(State	% Low Parenting Support	Rank	State	% Low Parenting Support
	SD	4.5%	51	NY	26.0%
	MT	6.5%	50	NM	25.8%
	NH	6.5%	49	MD	25.5%
	WI	8.6%	48	CA	22.1%
	VT	8.7%	47	ТХ	22.0%





Source: 2016-2018 National Survey of Children's Health (NSCH). For additional information, please refer to the Methods and Sources section of pn3policy.org.

WHAT ARE THE MOST EFFECTIVE POLICIES AND STRATEGIES TO IMPACT PARENTAL HEALTH AND EMOTIONAL WELLBEING?



The Difference Between Policies and Strategies in This Roadmap

Effective policies have a demonstrated positive impact on at least one prenatal-to-3 goal, and the research provides clear guidance on legislative or regulatory action that states can take to adopt and implement the policy.

By contrast, **effective strategies** have demonstrated positive impacts on prenatal-to-3 outcomes, but the research does not provide clear guidance to states on how to effectively implement the program or strategy at scale.



Services

More extensive information on the details and impacts of each policy and strategy, and states' progress toward implementing them, can be found in subsequent sections of this Roadmap, in the Prenatal-to-3 Policy Clearinghouse at pn3policy.org, and in each state's Prenatal-to-3 State Policy Roadmap.

Examples of Impact

Effective state policies and strategies to impact Parental Health and Emotional Wellbeing

EFFECTIVE POLICIES						
Expanded Income Eligibility for Health Insurance	• Medicaid expansion had both positive and null effects on mental distress (L, H, K)					
Paid Family Leave	 Access to paid family leave led to a 7 to 17 percentage point increase in mothers reporting very good or excellent mental health and a 3 to 5 percentage point increase in mothers reporting coping well with day-to-day demands of parenting (C) Access to paid family leave led to an 8.2 percentage point decline in the risk of being overweight and a 12 percentage point decline in any alcohol consumption (P) 					
State Minimum Wage	 A \$1 increase in the minimum wage resulted in a 3.4% to 5.9% reduction in adult (non-drug) suicides (T) A \$1 increase in the minimum wage led to a 7% decline in smoking during pregnancy (Q) 					

EFFECTIVE STRATEGIES							
Group Prenatal Care	 Group prenatal care decreased the likelihood of excessive weight gain (M, P) Group prenatal care reduced depressive symptoms, especially among high-stress women (C, H) 						
Early Intervention Services	• Mothers of low birthweight infants who received EI services scored significantly higher on scales of maternal self-confidence and maternal role satisfaction than control groups (D, H)						

Note: The letters in parentheses in the table above correspond to the findings from strong causal studies included in the comprehensive evidence reviews of the policies and strategies. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at pn3policy.org.

Policy Variation Across States

Have states adopted and fully implemented the effective policies to impact **Parental Health and Emotional Wellbeing**?

EFFECTIVE POLICIES

Expanded Income Eligibility for Health Insurance

37 states have adopted and fully implemented the Medicaid expansion under the Affordable Care Act (ACA) that includes coverage for most adults with incomes up to 138% of the federal poverty level (FPL).



Sources: As of October 1, 2020. Medicaid state plan amendments (SPAs) and Section 1115 waivers.

Paid Family Leave

5 states have adopted and fully implemented a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care.



Sources: As of October 1, 2020. State statutes and legislation on paid family leave.

State Minimum Wage

19 states have adopted and fully implemented a minimum wage of \$10 or greater.



Sources: As of October 1, 2020. State labor statutes and state labor department websites.

Note: Some states in the "no" category for Policy Variation Across States have adopted a policy, but they have not fully implemented it, or they do not provide the level of benefit, indicated by the evidence reviews, necessary to impact the PN-3 goal. Many states in the "no" category for Strategy Variation Across States (on the next page) have implemented aspects of the effective strategies, but states are assessed relative to one another on making substantial progress. For additional information see <u>pn3policy.org</u>.

Strategy Variation Across States

Have states made substantial progress toward implementing the effective strategies to impact **Parental Health and Emotional Wellbeing**?

EFFECTIVE STRATEGIES

Group Prenatal Care

10 states support the implementation of group prenatal care financially through enhanced reimbursements for group prenatal care providers.



Sources: As of June 8, 2020. State health department websites and proposed and passed state legislation.

Early Intervention Services

5 states have moderate or broad criteria to determine eligibility and serve children who are at risk for later delays or disabilities.



Sources: As of June 2020. IDEA Infant and Toddler Coordinators Association 2018, state regulations retrieved from state legal statutes, health department regulations, and Early Intervention program websites.



at **pn3policy.org/interactive**.

WHAT OTHER SOLUTIONS ARE STATES PURSUING THAT CAN HELP BUILD THE EVIDENCE BASE?

Beyond the policies and strategies proven effective by the current research, states also are pursuing other approaches that hold promise for improving parental health and wellbeing. States can look to these approaches as potential models for policy innovation, and they should support ongoing research in these areas to better understand impacts on parents' health and to determine the most effective way to employ these approaches.

Perinatal mental health programs: A variety of efforts at the state and local levels have emerged to address parents' and families' mental health needs during and after pregnancy. For example, MCPAP (Massachusetts Child Psychiatry Access Program) for Moms helps primary care providers build their capacity to serve pregnant and postpartum women and their children.⁷ The organization's goal is to prevent, identify, and help patients manage mental health and substance use concerns. Funded primarily by the Massachusetts Department of Mental Health, the program provides practitioners with training and toolkits, consultation and care coordination services, and linkages to community resources.

Based in New Haven, Connecticut, another initiative focused on parental mental health is the Mental health Outreach for Mothers Partnership (known as the MOMS Partnership).⁸ This initiative connects mothers with resources and social supports, including therapy, stress management classes, and parenting support. Elevate—a policy lab based in the Yale School of Medicine—is currently scaling up the MOMS program to five new sites (in Connecticut, Kentucky, District of Columbia, New York, and Vermont).⁹ A multigenerational impact evaluation is planned for each site, and results will demonstrate the potential effectiveness of this initiative for improving parental health and emotional wellbeing.¹⁰ This effort will include a comparative analysis of impacts across program sites. These and other emerging efforts may serve as models for states that are developing policies to improve parental health and emotional wellbeing.

Targeted screenings: Both comprehensive and targeted health screenings promote optimal long-term child development and family wellbeing by allowing medical professionals to assess a patients' health risks before problems develop.¹¹ In contrast to comprehensive screenings—which allow a practitioner to identify a wide range of potential risks and health needs that a patient may have—targeted screenings allow assessment of a patient's risk for a specific issue that can impact health and wellbeing. For example, challenges during the perinatal and postpartum periods that can be identified in targeted screenings, such as maternal depression and developmental delays among children, affect a substantial number of families. Research suggests that 9% of pregnant women¹² and between 7% and 15% of postpartum women experience depressive symptoms.¹³ Without screenings, less than a quarter of postpartum depression cases are identified.¹⁴

As the map on the next page shows, approximately half of states recommend that mothers receive a screening for maternal depression during a well-child visit, and six states currently require it (out of 43 states reporting policy status). For child developmental screenings, approximately half of states (shown in the map on the next page) have Medicaid programs that reimburse for and require these screenings as part of a well-child visit.

No rigorous research has yet examined the impacts of these legislative strategies. Studies have found that legislation to allow reimbursement for targeted screenings is associated with higher rates of identification of needs and subsequent initiation of services,^{15,16} but study design limitations preclude firm conclusions. Current research also does not provide guidance on a clear threshold for the optimal reimbursement rate for child developmental screenings, and no available studies have examined which well-child visits are ideal for administering screenings or which screening tools may be best for identifying needs or delays. More research will help provide guidance on these matters.

Medicaid Treatment of Maternal Depression Screenings During Well-Child Visits



Source: As of March 2020. National Academy for State Health Policy. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Medicaid Requires and Reimburses Child Development Screenings



Source: As of July 23, 2019. National Academy for State Health Policy. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

GOAL

NURTURING AND RESPONSIVE CHILD-PARENT RELATIONSHIPS

Children experience warm, nurturing, stimulating interactions with their parents that promote healthy development.



WHY ARE NURTURING AND RESPONSIVE CHILD-PARENT RELATIONSHIPS AN IMPORTANT PRENATAL-TO-3 GOAL?

Stable, responsive relationships with caregivers during the earliest months and years of a child's life are key to longterm healthy development. Yet those critical early years also can be stressful for parents, who may themselves struggle to cope and to connect with their children. The developing brain depends on secure attachments and serveand-return interactions, in which adults reliably and appropriately respond to a child's cries, babbles, and other bids for connection. These interactions shape brain architecture, both providing the positive stimulation children need for typical development and acting as a buffer to stress, protecting the developmental process from disruption.¹

Persistent absence of warm, reciprocal interactions increases the likelihood that a child will experience poor outcomes for health and wellbeing.² Neglect—which accounts for the majority of child maltreatment cases—is associated with a particularly wide range of mental and physical health consequences, including behavioral disorders, interpersonal difficulties, chronic illness, and poor school achievement.³ When families experience adversity related to economic hardship, limited education, or discrimination, the stress can interfere with parent-child interactions and perpetuate socioeconomic, racial, and ethnic disparities in children's health risks.⁴ Many of the stresses brought on by COVID-19—including economic uncertainty and job loss, confinement in crowded settings, and lack of access to support networks—can increase the risk, to both women and children, of exposure to violence and can further exacerbate underlying disparities.⁵

Measuring the quality of children's interactions with adults is not easy, nor are data in this area abundant. However, some measures from available state-level data do capture this critical component of children's development so that states can assess how parents and young children are faring. Next we provide an overview of these measures—parents' daily reading with a child, daily nurturing behaviors, and self-reports on coping with the demands of parenting. States should use these outcomes to track progress toward improving young children's opportunities for engaging with parents in the warm, stimulating interactions they need. States also can implement the policies and strategies, reviewed in these sections, that have proven successful in achieving this goal.

HOW ARE STATES CURRENTLY MEETING THIS PRENATAL-TO-3 GOAL?

Three outcome measures illustrate parents' nurturing interactions with their infants and toddlers: (1) daily reading, (2) daily nurturing behaviors, and (3) parenting stress. These outcomes vary considerably across states, and daily reading and nurturing vary by race and ethnicity as well.

Nurturing and Responsive Child-Parent Relationships Outcome Measures



Daily Reading Daily Nurturing Behaviors

Lack of Daily Reading

% of children under age 3 whose family did NOT read to them daily during the prior week

Median state value: 60.4%

Lack of Daily Nurturing Behaviors

% of children under age 3 whose family did NOT sing songs or tell stories to them every day during the prior week

Median state value: 42.2%

Parenting Stress

% of children under age 3 whose parent reports they are NOT coping "very well" with the demands of parenting

Median state value: 29.9%

All three outcome measures were calculated intentionally in the negative direction to demonstrate where states have room for improvement and to help states prioritize the PN-3 policy goals that are lagging. Out of 51 states, the worst state ranks 51st, and the best state ranks first. The median state indicates that half of states have outcomes that measure better than that state, whereas half of states have outcomes that are worse.



IMPACT OF COVID-19

The data used in this Roadmap predate the COVID-19 pandemic, and it is highly likely that the outcomes for infants, toddlers, and their parents have worsened substantially due to the collapse of the economy and the unprecedented strains on our child care, health care, and social service systems. The health crisis has disproportionately had a negative impact on families of color, exacerbating the racial and ethnic inequities in the wellbeing of infants and toddlers and their parents.

Lack of Daily Reading

% of children under age 3 whose family did NOT read to them daily during the prior week

Daily reading to a child stimulates brain development and fosters child-parent bonding. In the US, 3 out of 5 children under age 3 are not read to daily. In the five best states, 40% to 50% of children lack daily reading, but in the five worst states, over 70% of infants and toddlers are not read to daily. Black and Hispanic children are 50% more likely than White children not to be read to daily.

5 BEST STATES			5 WORST STATES					
Rank	State	% Not Read to Daily	Rank	% Not Read Rank State to Daily		VARIATION BY RACE & ETHNICITY IN THE US		
1	VT	42.2%	51	GA	72.9%	White	54.6%	
2	СТ	46.7%	50	UT	71.4%	Other	60.8%	
3	DC	49.6%	48	TX	71.1%	US Average	62.8%	
3	ME	49.6%	48	MS	71.1%	Black	76.0%	
5	RI	51.1%	47	AR	70.3%	Пізрапіс	70.070	



See Appendix for a table of state variation in Nurturing and Responsive Child-Parent Relationships outcomes and corresponding ranks for each state. Source: 2016-2018 National Survey of Children's Health (NSCH). For additional information, please refer to the Methods and Sources section of pn3policy.org.

Lack of Daily Nurturing Behaviors

% of children under age 3 whose family did NOT sing songs or tell stories to them every day during the prior week

Singing songs, telling stories, and playing games like peekaboo are effective nurturing behaviors that stimulate brain development and promote child-parent attachment. In the US, more than 2 out of 5 children under age 3 do not receive these nurturing interactions on a daily basis. In the five worst states, approximately half of babies do not have these nurturing interactions, but up to one-third of babies in the five best states do not experience this nurturing either. More than half of Black and Hispanic babies do not experience nurturing behaviors daily, compared to slightly over one-third of White babies.

5 BEST STATES

5 WORST STATES

Rank	State	% Not Nurtured Daily	Rank	State	% Not Nurtured Daily
1	AK	27.7%	51	ТХ	52.4%
2	VT	28.1%	50	MS	51.8%
3	СТ	28.3%	49	GA	49.7%
4	DE	33.4%	48	ND	48.9%
5	NJ	33.6%	47	IL	48.7%

VARIATION BY RACE & ETHNICITY IN THE US





Source: 2016-2018 National Survey of Children's Health (NSCH). For additional information, please refer to the Methods and Sources section of pn3policy.org.

Parenting Stress

% of children under age 3 whose parent reports they are NOT coping "very well" with the demands of parenting

Parenting can be challenging, and parents who are overwhelmed by the challenges are less likely to engage with their children and foster secure attachments and optimal brain development. Nearly 30% of all children under age 3 live with parents who struggle to cope with the demands of parenting, but the numbers are nearly twice as high in the five worst states compared to the five best states. This outcome does not vary substantially by race and ethnicity.

5 BEST STATES			5 WORST STATES			_	
Rank	State	% Not Coping	Rank	c State	% Not Coping	VARIATION BY	RACE & ETHNICITY HE US
1	WV	17.8%	51	UT	44.0%	Black	23.8%
2	RI	18.7%	50	HI	37.5%	White	28.3%
3	FL	20.8%	49	OR	36.3%	US Average	29.3%
4	WI	21.6%	48	MT	36.1%	Hispanic	29.5%
5	SD	22.2%	47	NH	35.8%	Other	



Source: 2016-2018 National Survey of Children's Health (NSCH). For additional information, please refer to the Methods and Sources section of pn3policy.org.

WHAT ARE THE MOST EFFECTIVE POLICIES AND STRATEGIES TO IMPACT NURTURING AND RESPONSIVE CHILD-PARENT RELATIONSHIPS?



The Difference Between Policies and Strategies in This Roadmap

Effective policies have a demonstrated positive impact on at least one prenatal-to-3 goal, and the research provides clear guidance on legislative or regulatory action that states can take to adopt and implement the policy.

By contrast, **effective strategies** have demonstrated positive impacts on prenatal-to-3 outcomes in rigorous studies, but the research does not provide clear guidance to states on how to effectively implement the program or strategy statewide.



More extensive information on the details and impacts of each policy and strategy, and states' progress toward implementing them, can be found in subsequent sections of this Roadmap, in the Prenatal-to-3 Policy Clearinghouse at pn3policy.org, and in each state's Prenatal-to-3 State Policy Roadmap.
Examples of Impact

Effective state policies and strategies to impact Nurturing and Responsive Child-Parent Relationships

EFFECTIVE POLIC	IES
Paid Family Leave	 Access to paid family leave led to a 10% to 20% increase in parents who reported reading to infants 4+ days per week, depending on the group (C) Mothers who took paid leave reported going on outings with children 9.8 more times per month, and having breakfast with children 3.6 more times per week (A)
EFFECTIVE STRAT	TEGIES
Evidence-Based Home Visiting Programs	 Home visiting led to small but significant effects for improving parenting behaviors (overall effect sizes on parenting outcomes from meta-analyses range from 0.09 to 0.37) (A,C,D,E) Significant effects emerge within the context of many more null findings (B,E)
Early Head Start	 EHS participation led to more supportive home environments for language and literacy (effect sizes 0.12) (I, S), particularly for Black families (effect size 0.19) (N) and families with moderate-level risk factors (effect size 0.18) (N) Fewer parents participating in EHS reported spanking their child (effect size -0.13) (J, S) Black EHS parents were more involved in school at grade 5 follow-up (effect size 0.37) (T)

Note: The letters in parentheses in the table above correspond to the findings from strong causal studies included in the comprehensive evidence reviews of the policies and strategies. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at pn3policy.org.



Policy Variation Across States

Have states adopted and fully implemented the effective policy to impact **Nurturing and Responsive Child-Parent Relationships**?

EFFECTIVE POLICIES

Paid Family Leave

5 states have adopted and fully implemented a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care.



Note: Some states in the "no" category for Policy Variation Across States have adopted a policy, but they have not fully implemented it, or they do not provide the level of benefit, indicated by the evidence reviews, necessary to impact the PN-3 goal. Many states in the "no" category for Strategy Variation Across States (on the next page) have implemented aspects of the effective strategies, but states are assessed relative to one another on making substantial progress. For additional information see <u>pn3policy.org</u>.

Sources: As of October 1, 2020. State statutes and legislation on paid family leave.



Strategy Variation Across States

Have states made substantial progress toward implementing the effective strategies to impact **Nurturing and Responsive Child-Parent Relationships**?

EFFECTIVE STRATEGIES

Evidence-Based Home Visiting Programs

23 states supplement federal funding, and the estimated percentage of eligible children served by home visiting is at or above the median state value (7.3%).



Sources: As of June 11, 2020. National Home Visiting Resource Center. Home Visiting Evidence of Effectiveness. National Conferences of State Legislatures (NCSL) FY19 state budget survey. State statutes and adopted FY19 budgets. 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS).

Early Head Start

7 states supplement federal funding, and the estimated percentage of income-eligible children with access to EHS is at or above the median state value (8.9%).



Sources: As of 2020. National Head Start Association report, confirmation emails and phone calls from state EHS experts, 2019 Early Head Start (EHS) Program Information Report (PIR), and 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS).

k

Explore your state's interactive data at **pn3policy.org/interactive**. GOAL

NURTURING AND RESPONSIVE CHILD CARE IN SAFE SETTINGS

When children are not with their parents, they are in high-quality, nurturing, and safe environments.



WHY IS NURTURING AND RESPONSIVE CHILD CARE IN SAFE SETTINGS AN IMPORTANT PRENATAL-TO-3 GOAL?

The developing brain of a young child depends on secure attachments with caregivers. Serve-and-return interactions—in which adults respond consistently and appropriately to a child's cries, babbles, and other bids for connection—provide vitally important positive stimulation and protect the developmental process from disruption due to stress.¹ These interactions, so fundamental to shaping brain architecture, are just as important when children are in child care as when they are at home with their parents. But just as parents need support so that they can focus on connecting with children, so do caregivers in child care settings. Education and training, financial security, food security, health and wellbeing—all of these factors can affect caregivers' interactions with children.^{2,3,4} But research shows that child care workers commonly earn wages insufficient for meeting basic needs and that they experience high rates of food insecurity, as well as poor mental wellbeing.⁵ Those caregivers who work with infants and toddlers typically earn even lower wages than their peers who work with children ages 3 to 5.⁶

Nearly 7 million children are enrolled in child care centers in the United States, and approximately 60% of those children are 3 years old or younger.⁷ The science makes clear that financial hardship, poor health, and threats to emotional wellbeing diminish the quality of caregivers' interactions with young children. However, it remains unclear how best to leverage components of child care—such as subsidy rates, workforce qualifications and compensation guidelines, or class sizes and child-caregiver ratios—to improve these interactions. Observational tools, such as the Classroom Assessment Scoring System (CLASS) and Environment Rating Scales (ERS), can be used to track and assess classroom safety and quality, but "process" quality in particular (the richness of classroom interactions and learning experiences) can be difficult to identify and measure, and implementing the tools can be costly.⁸ These tools are evolving and improving to accommodate the growing awareness of young children's unique developmental needs,⁹ but in the meantime working parents still must make decisions about how best to ensure quality care for their children.

Data show that only 24% of infants and toddlers are placed in child care considered to be high quality by established standards.¹⁰ Affordability and proximity of care each play a critical role in determining families' child care options. Child care typically accounts for a substantial portion of a family's budget, approximating—and often eclipsing—the cost of housing.¹¹ Families who live in low-income neighborhoods typically have fewer child care options than families in other neighborhoods, a factor that limits access to affordable, quality child care—especially for those children for whom quality care is particularly important—and perpetuates existing racial and socioeconomic disparities.^{12,13,14}

MEASURING STATE PROGRESS TOWARD ACHIEVING THIS PN-3 GOAL IS DIFFICULT

It is critical that young children receive quality care and that their caregivers have the resources they need to provide that care—and yet currently no outcome measured nationally provides sufficient insight into states' most effective means of achieving this goal. There is an unacceptable lack of rigorous research that establishes causal links between states' policy efforts and child care quality and children's outcomes. Rigorous research that focuses specifically on infants and toddlers is even more sparse. Another challenge is that states and researchers rely on definitions of "quality," using tools such as CLASS and ERS, that have been slow to accommodate child-caregiver interactions as a central component, and seldom link directly to improvements in children's outcomes. It is imperative that these tools continue to improve and that the evidence base grows to fill in these gaps.

To help eliminate barriers to quality care and disparities in access, a state can use a quality improvement and rating system (QRIS) to systematically assess and provide public information about child care quality. These systems have the potential to be a valuable source of information for families and a means of offering providers incentives for, and assistance with, improvement. States can tie this mechanism to licensing procedures and use it both to set requirements and to promote recommended practices among participating providers. A QRIS allows a state to target areas of specific concern, such as the components of child care settings that affect child-caregiver interactions, and to encourage the adoption of models of care like Early Head Start (EHS). According to our comprehensive review of rigorous research, EHS can be an effective strategy for improving outcomes for young children and families. Many of the elements that contribute to this program's success—such as standards for parent engagement, child care coaching, workforce compensation and qualifications, and class sizes and ratios—can be found in QRIS standards as well. (See page 107 for details.)

Given the potential of QRIS to inform families about the quality of child care available and to encourage providers to improve their quality, states should monitor the proportion of providers that participate in their QRIS. Additionally, given that EHS provides high quality and nurturing care to infants and toddlers, states should track the percentage of income-eligible children who participate in EHS. The following sections provide an overview of these and other strategies.

EARLY HEAD START IS AN EFFECTIVE STRATEGY TO IMPACT NURTURING AND RESPONSIVE CHILD CARE IN SAFE SETTINGS

Comprehensive reviews of the rigorous research that has been conducted to date identified one effective strategy that states can implement to increase nurturing and responsive child care for infants and toddlers. Early Head Start is a federally funded program that provides "intensive, comprehensive child development and family support services" for families with low incomes.^{15,16} EHS programming has several goals: to promote the healthy social, emotional, cognitive, and physical development of young children; to assist parents in developing positive parenting skills and moving toward their self-sufficiency goals; and to bring together community partners and resources to provide children and families with comprehensive services and support.¹⁷

States currently support EHS by providing supplemental funding, leveraging federal funding, or employing other mechanisms within early childhood systems. However, the current evidence base—which draws primarily from the Early Head Start Research and Evaluation Project— provides neither clear guidance on the optimal level of state investment necessary to ensure effectiveness, nor clear insight into other methods states could employ to support EHS. The table below provides examples of the impact of EHS on nurturing and responsive child care. More detailed information on EHS is available in the Policy Profile section of this report as well as in the Prenatal-to-3 Policy Clearinghouse at pn3policy.org.

Nurturing and Responsive Child Care in Safe Settings Child Care Providers Participating

Providers Participating in QRIS Access to EHS

Examples of Impact

Effective state strategy to impact Nurturing and Responsive Child Care in Safe Settings

EF	FE	CTľ	VE	ST	RAT	EG	ES

Early Head Start	• The share of children participating in good-quality center-based care was 3 times greater among children in EHS (K)
	 In center-based care, caregiver-child interactions were better among EHS participants than among nonparticipants (K)

Note: The letters in parentheses in the table above correspond to the findings from strong causal studies included in the comprehensive evidence reviews of the policies and strategies. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at <u>pn3policy.org</u>.

Children With Access to EHS

Estimated % of income-eligible children under age 3 with access to Early Head Start

In Most States, Few Income-Eligible Children Are Served by Early Head Start

Due to limited federal funding and supplemental state investments, few income-eligible children are able to participate in EHS. Currently, the percentage of eligible children who receive EHS services ranges from 3.5% in the worst state (Tennessee) to 26.0% in the best state (the District of Columbia), with the median state serving 8.9% of infants and toddlers. The percentages refer to children with access to funded slots for Early Head Start. More children may actually be served by Early Head Start, but state funding influences the slots available.

	5 BEST	STATES		5 WORS	STATES
Rank	State	% Children <3 With Access to EHS	Rank	State	% Children <3 With Access to EHS
1	DC	26.0%	51	TN	3.5%
2	AK	25.7%	50	TX	4.4%
3	VT	24.8%	48	IN	4.5%
4	MT	21.4%	48	NV	4.8%
5	SD	17.5%	47	SC	5.0%



See Appendix for a table of state variation in children's access to EHS and corresponding rank for each state. Source: 2019 Early Head Start (EHS) Program Information Report (PIR) and 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS). For additional information, please refer to the Methods and Sources section of pn3policy.org.

Few States Supplement Federal Early Head Start Funding

Nine states supplement federal EHS funding with state dollars. In two of those states (Connecticut and Massachusetts), the estimated percentage of income-eligible children with access to EHS is below the median state value of 8.9%.



Nine States Use State Dollars to Implement EHS

Sources: National Head Start Association report and confirmation emails and phone calls from state EHS experts, as of 2020. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

More extensive information on the details and impacts of Early Head Start, and states' progress toward implementing it, can be found in the Policy Profile section of this Roadmap, in the Prenatal-to-3 Policy Clearinghouse, and in each state's Prenatal-to-3 State Policy Roadmap at <u>pn3policy.org</u>.

WHAT OTHER SOLUTIONS ARE STATES PURSUING THAT CAN HELP BUILD THE EVIDENCE BASE?

The research is clear that children need high-quality child care environments that foster nurturing relationships between the caregiver and child, and that lead to better child outcomes. However, currently, there is an unacceptable dearth of rigorous evidence in this field, especially for infants and toddlers. The early childhood field should prioritize learning which policies and strategies effectively promote child care quality and better child outcomes.

Building the evidence base is somewhat difficult, because of wide variation in state approaches and inconsistent data collection across states, but more can be done. One of the limitations of the evidence base is that it investigates each policy or strategy in isolation, and evidence from Early Head Start suggests that it is a combination of elements that creates a system of early care and education that cares for caregivers, strengthens families, and promotes child wellbeing. Next is an overview of what states are pursuing and what is known to date with regard to policies that support nurturing and responsive child care.

Quality Rating and Improvement Systems (QRIS)

Child care settings play a critical role in young children's healthy development, and parents need information to help them identify quality care and evaluate their child care options. A QRIS has the potential to allow a state to facilitate access to this information and demonstrate providers' compliance with established standards of care. State QRIS structure, standards, and incentives vary considerably, and the current evidence base does not make clear which elements of a QRIS lead to more nurturing care and better child outcomes.

Even so, provider participation is key. If providers do not participate in the state QRIS, the state lacks a mechanism for holding providers accountable and for improving child care quality. Additionally, parents cannot evaluate the quality of providers for whom information is not available due to lack of participation in the QRIS. For these reasons, QRIS participation is an important indicator of providers' compliance with state guidelines and an important measure for states to monitor.



Providers' participation in QRIS may be voluntary, compulsory (e.g., tied to a state's licensing requirements), or some combination thereof. Participation in QRIS varies substantially across states (see map below). In 10 states, every licensed center-based and family child care (FCC) provider is part of the QRIS program (Colorado, Illinois, New Hampshire, New Mexico, North Carolina, Oklahoma, Oregon, Pennsylvania, Tennessee, and Vermont), and in an additional 12 states, providers that serve children who receive subsidies are required to participate in the state's QRIS (Arkansas, the District of Columbia, Louisiana, Maine, Maryland, Massachusetts, Nevada, Rhode Island, South Carolina, Utah, Washington, and Wisconsin). Four states do not have a QRIS (Hawaii, Mississippi, Missouri, and Wyoming). Nine states that have a QRIS do not report participation rate data (Alabama, Connecticut, Florida, Kansas, Louisiana, Nebraska, Nevada, South Dakota, and West Virginia). New Jersey (2.4%) and New York (1.5%) have the lowest reported participation rates among states that have a QRIS.

OUTCOME

Providers Participating in the State QRIS

% of licensed providers that participate in the state child care quality rating and improvement system



See Appendix for a table of state variation in the percentage of providers participating in the QRIS.

Source: The Build Initiative & Child Trends' Quality Compendium data system, as of December 31, 2019. For additional information, please refer to the Methods and Sources section of pn3policy.org.

States use a number of different mechanisms to strengthen the quality of their child care systems. Below, we provide information on some that states commonly employ and how their efforts vary. States may employ these mechanisms through licensing requirements or QRIS standards (or both). Currently research is unclear as to which of these strategies, or which combination of strategies, is the most effective for improving the quality of interactions between child care providers and infants and toddlers.

Child care coaching

Coaching (also referred to as mentoring or consultation) is a means of professional development that connects caregivers with child care experts who help them improve their skills through an ongoing, collaborative process.^{18,19,20} States can promote coaching, as a means of improving classroom quality, through child care resource and referral (CCR&R) agencies, state licensing requirements, or QRIS standards.^{21,22} Some states have guidelines for coach competencies and credentialing systems. Child care coaching is also a required part of Early Head Start.²³

A common method for providing this professional development to caregivers is through the technical assistance component of a state's QRIS. Forty-one states include coaching as a type of technical assistance in their QRIS. Of those states that have a fully implemented QRIS and report these data, only Utah does not include coaching as technical assistance within it. States vary substantially in the extent to which coaching is incorporated into existing child care structures and systems, how coaching is funded, the coaching models used, who provides coaching, and the types of coach competency guidelines or credentialing systems provided.

Support for coaching as a quality-improvement mechanism stems in part from the expectation that the approach improves child wellbeing through the enhanced quality of caregivers' interactions with young children. However, the current body of research is characterized by limitations—including small sample sizes, high attrition, and other study design challenges—that hamper efforts to understand which coaching practices or models might work best. Although coaching has proven effective in improving teacher language and literacy, the research to date has yet to find any causal effect on child-caregiver interactions specifically. These limitations caution against drawing strong conclusions about the overall effectiveness of child care coaching. See our comprehensive review of the evidence base at pn3policy.org.

Child care ratios

States may use ratio requirements—which govern the number of children allowed per caregiver in a room—as a mechanism for promoting child care quality and safety. A ratio of fewer children per teacher is expected not only to facilitate better classroom supervision, thereby improving safety, but also to allow sufficient opportunity for the enriching, one-on-one interactions on which young children's developing brains rely.²⁴ The research to date on the link between ratios and child care quality remains insufficient for drawing causal conclusions within the birth-to-3 context. Lack of research on children under age 3 frustrates this important effort, as do challenges faced by researchers, both in designing studies sufficiently rigorous for making causal inference and in accurately identifying and measuring indicators of quality in child care settings.

The National Association for the Education of Young Children (NAEYC), as well as the American Academy of Pediatrics (AAP) and the American Public Health Association (APHA), provide guidance on recommended ratios for infants and toddlers; however, not all states' licensing requirements for ratios meet these standards. In total, 35 states meet NAEYC's recommendation of a 4:1 child-to-caregiver ratio for infants; for toddlers, 16 states meet NAEYC's recommended 6:1 ratio. Additionally, 29 states include ratio standards for at least one type of child care setting as a measure of provider quality in their QRIS; nine states either do not report these data or do not have a QRIS.

The table on the next page shows each state's licensing requirements related to ratio and group size for center-based care. Additional information on state child-caregiver ratios in family child care is available at pn3policy.org.

State Ratio and Group Size Licensing Requirements for Center-Based Child Care

State	Maximum Number of Infants Allowed for One Staff Member to Supervise in Center-Based Care (Child-Staff Ratio)	Maximum Group Size for Infants in Center-Based Care	Maximum Number of Toddlers Allowed for One Staff Member to Supervise in Center-Based Care (Child- Staff Ratio)	Maximum Group Size for Toddlers in Center-Based Care
	NAEYC Standard is 4:1	NAEYC Standard is 8	NAEYC Standard is 6:1	NAEYC Standard is 12
Alabama	5:1	Group size not regulated	8:1	Group size not regulated
Alaska	5:1	10	6:1	12
Arizona	5:1	Group size not regulated	8:1	Group size not regulated
Arkansas	6:1	12	9:1	18
California	4:1	Group size not regulated	6:1	12
Colorado	5:1	10	7:1	14
Connecticut	4:1	8	4:1	8
Delaware	4:1	8	8:1	16
District of Columbia	4:1	8	4:1	8
Florida	4:1	Group size not regulated	11:1	Group size not regulated
Georgia	6:1	12	10:1	20
Hawaii	4:1	8	8:1	Group size not regulated
Idaho	Ratios determined by point system	Group size not regulated	Ratios determined by point system	Group size not regulated
Illinois	4:1	12	8:1	16
Indiana	4:1	8	7:1	14
Iowa	4:1	Group size not regulated	6:1	Group size not regulated
Kansas	3:1	9	7:1	14
Kentucky	5:1	10	10:1	20
Louisiana	6:1	Group size not regulated	12:1	Group size not regulated
Maine	4:1	8	5:1	10
Maryland	3:1	6	6:1	12
Massachusetts	3:1	7	10:1	20
Michigan	4:1	12	8:1	16
Minnesota	4:1	8	7:1	14
Mississippi	5:1	10	12:1	14

(continued)

(continued)

State	Maximum Number of Infants Allowed for One Staff Member to Supervise in Center-Based Care (Child-Staff Ratio)	Maximum Group Size for Infants in Center-Based Care	Maximum Number of Toddlers Allowed for One Staff Member to Supervise in Center-Based Care (Child- Staff Ratio)	Maximum Group Size for Toddlers in Center-Based Care
	NAEYC Standard is 4:1	NAEYC Standard is 8	NAEYC Standard is 6:1	NAEYC Standard is 12
Missouri	4:1	8	8:1	16
Montana	4:1	Group size not regulated	8:1	Group size not regulated
Nebraska	4:1	12	6:1	Group size not regulated
Nevada	6:1	Group size not regulated	10:1	Group size not regulated
New Hampshire	4:1	12	6:1	18
New Jersey	4:1	12	10:1	20
New Mexico	6:1	Group size not regulated	10:1	Group size not regulated
New York	4:1	8	5:1	12
North Carolina	5:1	10	10:1	20
North Dakota	4:1	10	7:1	20
Ohio	5:1	10	7:1	14
Oklahoma	4:1	8	8:1	16
Oregon	4:1	8	5:1	10
Pennsylvania	4:1	8	6:1	12
Rhode Island	4:1	8	6:1	12
South Carolina	5:1	Group size not regulated	9:1	Group size not regulated
South Dakota	5:1	20	5:1	20
Tennessee	4:1	8	7:1	14
Texas	4:1	10	11:1	22
Utah	4:1	8	7:1	14
Vermont	4:1	8	5:1	10
Virginia	4:1	Group size not regulated	10:1	Group size not regulated
Washington	4:1	8	7:1	14
West Virginia	4:1	8	8:1	16
Wisconsin	4:1	8	6:1	12
Wyoming	4:1	10	8:1	10

Source: As of 2014. National Center on Child Care Quality Improvement, U.S. Department of Health and Human Services.

The map below illustrates the states that meet all four of the NAEYC recommended standards for child-caregiver ratios and maximum group sizes for infants and toddlers in center-based care. The 29 states that include ratio standards in their QRIS are noted with a check mark.



State Ratio Standards in Licensing Requirements and QRIS Quality Standards

State licensing requirements meet all four NAEYC standards

State licensing requirements do NOT meet all four NAEYC standards

✓ QRIS includes ratio standards

Sources and notes:

Meets All NAEYC Standards: National Association for the Education of Young Children, as of 2018. **GRIS Includes Ratio Standards:** The Build Initiative & Child Trends' Quality Compendium data system, as of December 31, 2019.

For additional information, please refer to the Methods and Sources section of pn3policy.org.

Child care workforce qualifications

Many states promote child care workforce quality through licensing requirements and QRIS standards for the education or training of child care staff. In determining the level of education to promote, states can follow the lead of national organizations such as Early Head Start, NAEYC, and the Institute of Medicine and National Research Council. For lead teachers in both center and family child care (FCC) settings, national standards encourage the use of a bachelor's degree as the minimum education requirement.²⁵ Currently no states meet this standard in either setting. In two states (the District of Columbia and Hawaii), licensing requirements for assistant teacher qualifications in both center-based and FCC settings align with national standards. The licensing requirements of an additional two states, Minnesota and Vermont, align with these recommendations for assistant teachers only in center-based settings. Further study is needed to understand how standards for education and training, when promoted through a QRIS or through licensing requirements, affect child care quality. See our comprehensive review of the evidence base at pn3policy.org.

Child care workforce compensation

Teachers and caregivers in the child care field, particularly those serving infants and toddlers, commonly earn low wages. Recognizing the importance of fair compensation, states have begun to include workforce compensation guidelines in licensing requirements and QRIS standards. Many states also provide direct financial relief to child care workers through tax credits, bonuses, and stipends. Improving workforce compensation is thought to be important in recruiting and retaining a highly skilled workforce, ultimately improving classroom quality and outcomes for children.²⁶

Evidence on the impact of child care workforce compensation is largely observational, and does not identify an optimal strategy for states to pursue. To date, no strong causal study has been conducted on the impact of state-funded child care workforce scholarship programs. Evidence on the impacts of such programs will provide more context for determining how states can use workforce compensation standards to improve outcomes for young children and families.

Only Vermont and the District of Columbia had child care workforce compensation guidelines in place as of 2018, but 12 states had plans in place to establish guidelines in the future. Additionally, as of 2019, 15 states included either a salary scale or standards for benefits as a component in their QRIS for center-based providers. States also can improve child care workforce compensation through financial relief programs to supplement child care worker earnings. As of 2018, 14 states had statewide programs in place for stipends (cash awards given annually or biannually based on education level and retention) or tax credits (like annual stipends, but paid through a refundable tax credit) to provide financial relief for child care workers. Thirty-three states had bonus programs, awarded in recognition of a specific achievement, not on a regular basis. State-funded scholarships, which support child care educators in attaining higher education, are also fairly ubiquitous across the country, with 44 states offering early educator scholarship programs.

The table on the next page shows state variation in several of the mechanisms states use to support workforce compensation. A handful of states—Delaware, the District of Columbia, Minnesota, Nebraska, North Carolina, and Pennsylvania—employ all of the strategies for compensation and financial support of their child care workforce.

State Child Care Workforce Compensation and Assistance

State	State Has Established Guidelines or a Plan for Recommended Early Educator Payment/Benefit Guidelines	State Has a Policy to Provide a Tax Credit or Stipend to Supplement Early Educator Pay	State Has a Policy Providing a Bonus to Supplement Early Educator Pay	State Funds a Scholarship Program that Supports Higher Educational Attainment for Early Educators
Alabama	No	No	Yes	Yes
Alaska	No	No	No	Yes
Arizona	No	No	Yes	Yes
Arkansas	No	No	No	No
California	No	No	No	Yes
Colorado	Yes	No	Yes	Yes
Connecticut	No	No	Yes	Yes
Delaware	Yes	Yes	Yes	Yes
District of Columbia	Yes	Yes	Yes	Yes
Florida	No	No	Yes	Yes
Georgia	No	Yes	Yes	Yes
Hawaii	No	No	No	Yes
Idaho	No	No	Yes	Yes
Illinois	No	Yes	No	Yes
Indiana	Yes	No	Yes	Yes
lowa	No	No	Yes	Yes
Kansas	No	Yes	Yes	Yes
Kentucky	No	No	Yes	Yes
Louisiana	No	Yes	No	Yes
Maine	No	No	No	No
Maryland	No	Yes	No	Yes
Massachusetts	No	No	No	Yes
Michigan	No	No	Yes	Yes
Minnesota	Yes	Yes	Yes	Yes
Mississippi	No	No	No	No
Missouri	No	No	Yes	Yes

(continued)

(continued)

State	State Has Established Guidelines or a Plan for Recommended Early Educator Payment/Benefit Guidelines	State Has a Policy to Provide a Tax Credit or Stipend to Supplement Early Educator Pay	State Has a Policy Providing a Bonus to Supplement Early Educator Pay	State Funds a Scholarship Program that Supports Higher Educational Attainment for Early Educators
Montana	Yes	No	Yes	No
Nebraska	Yes	Yes	Yes	Yes
Nevada	No	No	Yes	Yes
New Hampshire	Yes	No	No	No
New Jersey	No	No	Yes	Yes
New Mexico	No	Yes	Yes	Yes
New York	Yes	No	No	Yes
North Carolina	Yes	Yes	Yes	Yes
North Dakota	No	No	No	Yes
Ohio	No	No	Yes	Yes
Oklahoma	No	No	No	Yes
Oregon	Yes	No	Yes	No
Pennsylvania	Yes	Yes	Yes	Yes
Rhode Island	No	No	Yes	Yes
South Carolina	No	No	Yes	Yes
South Dakota	No	No	No	No
Tennessee	No	No	No	Yes
Texas	No	No	Yes	Yes
Utah	No	Yes	Yes	Yes
Vermont	Yes	No	Yes	Yes
Virginia	No	No	No	Yes
Washington	Yes	No	Yes	Yes
West Virginia	No	No	Yes	Yes
Wisconsin	No	Yes	Yes	Yes
Wyoming	No	No	No	Yes

Source: As of 2018, Whitebook, et al. Early Childhood Workforce Index – 2018. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

The strategies outlined in this section hold promise for supporting nurturing and responsive child care in safe settings, but they have yet to accumulate enough rigorous evidence of effectiveness. Given states' considerable interest in ensuring that families' have child care options that accommodate the unique developmental needs of young children, continued research on these strategies and other innovative approaches that states are pursuing is imperative.

For more detailed information on each of these strategies to improve child care quality and children's outcomes, see the Prenatal-to-3 Policy Clearinghouse at <u>pn3policy.org</u>.



Search the new Prenatal-to-3 Policy Clearinghouse for an ongoing inventory of rigorous evidence reviews at **pn3policy.org/clearinghouse**.

GOAL

OPTIMAL CHILD HEALTH AND DEVELOPMENT

Children's emotional, physical, and cognitive development is on track, and delays are identified and addressed early.



WHY IS OPTIMAL CHILD HEALTH AND DEVELOPMENT AN IMPORTANT PRENATAL-TO-3 GOAL?

A child's developing brain is most flexible during the earliest months and years of life. This flexibility provides a window of opportunity for establishing a lifelong trajectory for health and wellbeing. Adverse childhood experiences during this period increase the likelihood of physical and mental health difficulties in adulthood, placing children on a trajectory toward physical health problems, such as cardiovascular disease, diabetes, and respiratory and immunological disorders, as well as challenges with learning and mental health.^{1,2} Despite the importance of this age period, children are more likely to experience abuse and neglect during their first three years of life than at any other age.³

Safe environments and good nutrition can support lifelong health, as can stable, responsive relationships with adults. Also, interventions that identify and treat early indications of disability or developmental delay during a child's early years can improve a child's trajectory, increasing the likelihood of positive health outcomes long term. Such interventions are important because 1 in 6 children in the US has a disability.⁴ Social predictors of health, such as poverty, increase a child's risk of disability, as do factors such as low birthweight.⁵

Breastfeeding can boost children's immune systems and improve long-term health outcomes, but challenges such as unsupportive workplace policies and hospital practices can limit mothers' opportunities for breastfeeding, and data show that 60% of mothers do not breastfeed for as long as they intend to.⁶ These difficulties contribute to racial disparities—Black infants are less likely than Hispanic and White infants to ever have been breastfed.⁷

The policies and strategies reviewed in this section have proven effective at directly improving children's health and wellbeing, and they can help states ensure that children's emotional, physical, and cognitive development is on track and that delays are identified and addressed early.

HOW ARE STATES CURRENTLY MEETING THIS PRENATAL-TO-3 GOAL?

Three outcomes illustrate factors that predict and reflect children's healthy development: (1) breastfeeding, (2) immunizations, and (3) child maltreatment rates. These outcomes vary considerably across states, and most vary by race and ethnicity as well.

Optimal Child Health and Development Outcome Measures

Never Breastfed

% of children ages 19 to 35 months whose mother reported NEVER breastfeeding

Median state value: 14.3%

Not Fully Immunized

% of children ages 19 to 35 months who are NOT up to date on the combined 7-vaccine series

Median state value: 27.5%

Child Maltreatment

Number of unique maltreatment victims under age 3 per 1,000 children

Optimal Child

Health and Development

Breastfeeding Immunizations Child Maltreatment

Median state value: 16.9

All three outcome measures were calculated intentionally in the negative direction to demonstrate where states have room for improvement and to help states prioritize the PN-3 policy goals that are lagging. Out of 51 states, the worst state ranks 51st, and the best state ranks first. The median state indicates that half of states have outcomes that measure better than that state, whereas half of states have outcomes that are worse.



IMPACT OF COVID-19

The data used in this Roadmap predate the COVID-19 pandemic, and it is highly likely that the outcomes for infants, toddlers, and their parents have worsened substantially due to the collapse of the economy and the unprecedented strains on our child care, health care, and social service systems. The health crisis has disproportionately had a negative impact on families of color, exacerbating the racial and ethnic inequities in the wellbeing of infants and toddlers and their parents.

Never Breastfed

% of children ages 19 to 35 months whose mother reported NEVER breastfeeding

Breastfeeding is associated with better health outcomes for mothers and children. Overall, 1 out of 6 babies is never breastfed, but the number is nearly double that in the five worst states and half that in the five best states. Black infants are twice as likely as White infants not to be breastfed, and 10 percentage points more likely not to be breastfed than Hispanic infants.

	5 BEST STATES				5 WORST	STATES	
Rank	State	% Never Breastfed	Ra	ınk	State	% Never Breastfed	VARIATION BY RACE & ETHNICITY IN THE US
1	OR	7.1%	5	51	MS	35.3%	White 13.8%
2	AK	8.0%	5	0	LA	31.5%	Other 14.7%
3	MN	8.7%	4	9	AR	28.5%	US Average 16.4%
4	WA	9.0%	4	7	WV	27.9%	Hispanic 16.8%
5	WY	9.2%	4	7	KY	27.9%	20.770



See Appendix for table of state variation in Optimal Child Health and Development outcomes and corresponding rank for each state. Source: 2018 National Immunization Survey-Child (NIS-Child). For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Not Fully Immunized

% of children ages 19 to 35 months who are NOT up to date on the combined 7-vaccine series

Immunizations protect against a variety of diseases that can lead to serious health consequences. In the US, more than one-quarter of infants and toddlers are not up to date on all of their immunizations. Babies in the five worst states are nearly twice as likely not to be fully immunized as babies in the five best states. Rates of immunization do not vary substantially by race and ethnicity.

	5 BEST STATES			5 WORST	STATES		
Rank	State	% Not Fully Immunized	Rank	State	% Not Fully Immunized	VARIATION BY R IN TH	ACE & ETHNICITY IE US
1	СТ	16.3%	51	MT	38.4%	White	25.0%
2	MA	18.2%	50	IN	36.2%	Other	25.8%
2	ND	18.2%	49	NV	36.0%	US Average	27.2%
4	KY	19.4%	48	WA	35.4%	Hispanic	29.6%
4	NH	19.4%	47	OR	34.5%	DIdCK	52.170



Source: 2018 National Immunization Survey-Child (NIS-Child). For additional information, please refer to the Methods and Sources section of pn3policy.org.

Child Maltreatment

Number of unique maltreatment victims under age 3 per 1,000 children

The trauma from maltreatment has immediate and lifelong neurobiological consequences on children's development. In the US, approximately 17 per 1,000 infants and toddlers will experience maltreatment, but rates vary widely across states. Infants and toddlers in the five worst states are maltreated at rates approximately 6 to 20 times higher than infants and toddlers in the five best states. Black infants and toddlers are more than twice as likely as White or Hispanic infants and toddlers to be victims of maltreatment.





Source: 2018 National Child Abuse and Neglect Data System (NCANDS) Child File, FFY 2018v2 and Annual Estimates of the Resident Population by Sex, Age, Race, and Hispanic Origin for the United States, Vintage 2018; for additional information, please refer to the Methods and Sources section of pn3policy.org.

WHAT ARE THE MOST EFFECTIVE POLICIES AND STRATEGIES TO IMPACT OPTIMAL CHILD HEALTH AND DEVELOPMENT?



The Difference Between Policies and Strategies in This Roadmap

Effective policies have a demonstrated positive impact on at least one prenatal-to-3 goal, and the research provides clear guidance on legislative or regulatory action that states can take to adopt and implement the policy.

By contrast, **effective strategies** have demonstrated positive impacts on prenatal-to-3 outcomes, but the research does not provide clear guidance to states on how to effectively implement the program or strategy at scale.



More extensive information on the details and impacts of each policy and strategy, and states' progress toward implementing them, can be found in subsequent sections of this Roadmap, in the Prenatal-to-3 Policy Clearinghouse at pn3policy.org, and in each state's Prenatal-to-3 State Policy Roadmap.

Examples of Impact

Effective state policies and strategies to impact Optimal Child Health and Development

EFFECTIVE POLIC	IES
Expanded Income Eligibility for Health Insurance	• Medicaid expansion led to 422 fewer reported cases of neglect per 100,000 children under age 6 (U)
Paid Family Leave	 Access to paid family leave led to a 1.3 percentage point increase in exclusive breastfeeding at age 6 months (G) Among Black mothers, access to paid family leave led to a 7.5 percentage point increase in initiating breastfeeding (K) Among low-income families, access to paid family leave led to a 5 to 7 percentage point decline in the likelihood of infants receiving late vaccinations (E) Access to paid family leave led to 2.8 fewer cases of pediatric abusive head trauma per 100,000 children under age 2, and 5.1 fewer cases per 100,000 children under age 1 (I)
State Minimum Wage	 A \$1 increase in the minimum wage reduced child neglect reports by 10.8% for children ages 0 to 5 (L) A \$1 increase in the minimum wage from birth through age 5 increased by 8.7% the likelihood that a child was reported to be in excellent or very good health from ages 6 through 12 (R)

EFFECTIVE STRAT	TEGIES
Comprehensive Screening and Referral Programs	 Family Connects had both positive and null impacts on total infant emergency care use (A, B, C, D) Healthy Steps families had 1.3 times higher odds of timely vaccinations and 2.3 times higher odds of timely pediatric appointments (F)
Group Prenatal Care	• Group prenatal care had both positive (twice the odds) and null impacts on breastfeeding initiation (G, N, I, J)
Early Head Start	 Children in EHS were more engaged during play (effect size 0.18) (J, S) Children in EHS had higher developmental functioning assessment scores (effect sizes 0.14) (I, S), particularly Black children in EHS (effect size 0.23) (N)
Early Intervention Services	 A meta-analysis of 31 studies found an average effect size of 0.62 for improving children's cognitive skills (F) Low birthweight, premature infants who were assigned to EI services saw better cognitive and behavioral outcomes at age 3 than infants in control groups (C, D) EI services improved toddlers' receptive language skills relative to a control group (0.35 effect size) (E)

Note: The letters in parentheses in the table above correspond to the findings from strong causal studies included in the comprehensive evidence reviews of the policies and strategies. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at pn3policy.org.

Policy Variation Across States

Have states adopted and fully implemented the effective policies to impact **Optimal Child Health** and **Development?**

EFFECTIVE POLICIES

Expanded Income Eligibility for Health Insurance

37 states have adopted and fully implemented the Medicaid expansion under the Affordable Care Act (ACA) that includes coverage for most adults with incomes up to 138% of the federal poverty level (FPL).



Sources: As of October 1, 2020. Medicaid state plan amendments (SPAs) and Section 1115 waivers.

Paid Family Leave

5 states have adopted and fully implemented a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care.



Sources: As of October 1, 2020. State statutes and legislation on paid family leave.

State Minimum Wage

19 states have adopted and fully implemented a minimum wage of \$10 or greater.



Sources: As of October 1, 2020. State labor statutes and state labor department websites.

Note: Some states in the "no" category for Policy Variation Across States have adopted a policy, but they have not fully implemented it, or they do not provide the level of benefit, indicated by the evidence reviews, necessary to impact the PN-3 goal. Many states in the "no" category for Strategy Variation Across States (on the next page) have implemented aspects of the effective strategies, but states are assessed relative to one another on making substantial progress. For additional information see <u>pn3policy.org</u>.

Strategy Variation Across States

Have states made substantial progress relative to other states toward implementing the effective strategies to impact **Optimal Child Health and Development**?

EFFECTIVE STRATEGIES

Comprehensive Screening and Referral Programs

8 states have both evidence-based comprehensive screening and referral programs: Family Connects and Healthy Steps.



Sources: As of June 12, 2020. Family Connects and Healthy Steps national websites.

Early Head Start

7 states supplement federal funding, and the estimated percentage of income-eligible children with access to EHS is at or above the median state value (8.9%).



Sources: As of 2020. National Head Start Association report, confirmation emails and phone calls from state EHS experts, 2019 Early Head Start (EHS) Program Information Report (PIR), and 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS).

Group Prenatal Care

10 states support the implementation of group prenatal care financially through enhanced reimbursements for group prenatal care providers.



Sources: As of June 8, 2020. State health department websites and proposed and passed state legislation.

Early Intervention Services

5 states have moderate or broad criteria to determine eligibility and serve children who are at risk for later delays or disabilities.



Sources: As of June 2020. IDEA Infant and Toddler Coordinators Association 2018, state regulations retrieved from state legal statutes, health department regulations, and Early Intervention program websites.

EFFECTIVE STATE SOLUTIONS TO STRENGTHEN THE PRENATAL-TO-3 SYSTEM OF CARE

What is each solution, and why is each solution important?

What impact does each solution have?

What do we still need to learn about each solution?

How do states vary based on their adoption and implementation of each solution?

POLICY

EXPANDED INCOME ELIGIBILITY FOR HEALTH INSURANCE

Expanded income eligibility for health insurance is an effective state POLICY to impact:



Expanding Medicaid eligibility to most adults with incomes up to 138% of the federal poverty level:

- increases access to needed health care services;
- improves financial wellbeing;
- reduces racial disparities in adverse birth outcomes;
- has mixed impacts on health and wellbeing; and
- keeps children safe (reduces child neglect rates).

37

states have adopted and fully implemented the Medicaid expansion under the Affordable Care Act that includes coverage for most adults with incomes up to 138% of the federal poverty level.

Count excludes Missouri and Oklahoma, which have adopted but not fully implemented Medicaid expansion as of October 1, 2020.

WHAT IS MEDICAID EXPANSION?

States can employ a number of strategies to increase health insurance coverage for their residents, and the most widely studied strategy is the expansion of Medicaid eligibility. Medicaid is a joint federal-state program that provides health insurance to low-income households. Medicaid provides health insurance for 1 in 5 Americans and covers approximately half of all births in the United States.¹²

The federal Patient Protection and Affordable Care Act, also known as the ACA, was signed into law in 2010. In addition to providing subsidies to purchase health insurance in the online marketplace, the ACA expanded Medicaid eligibility for most adults with incomes up to 138% of the federal poverty level (FPL), to begin in 2014. Without this expansion, childless adults are not eligible to enroll in Medicaid, and eligibility criteria for parents vary widely across states. In 2012, the Supreme Court ruled that the federal expansion was unconstitutional and gave states the power to determine their own income guidelines and eligibility criteria. In states that have expanded Medicaid through the ACA, the federal government pays 90% of the total costs, as of 2020.³

WHY IS MEDICAID EXPANSION IMPORTANT?

Because Medicaid Eligibility Varies Widely Across States, Many Individuals Lack Coverage

The percentage of adults with health insurance coverage through Medicaid varies substantially across states. States typically establish eligibility guidelines at different income levels based on whether an individual is a childless adult, pregnant, or parenting, as well as on the size of the individual's household. Raising the maximum income to qualify for Medicaid increases the number of individuals eligible for coverage. These income eligibility guidelines vary not only from group to group but from state to state as well, indicated in the following table.

Expanding Medicaid Eligibility Allows More People to Access Necessary Care

States that have expanded Medicaid provide coverage to most adults with incomes up to 138% of the FPL. The populations most affected by Medicaid expansion are previously ineligible childless adults, including childless women of reproductive age,^a and parents whose incomes fall between the pre-ACA income guidelines established in their state and 138% of the FPL.

Medicaid Income Eligibility Requirements During the Perinatal Period

	Before Pregnancy	During Pregnancy (Through 60 Days Postpartum)	After Pregnancy (61 Days Postpartum)
Expansion States	 Childless adults up to 138% of the FPL are eligible for Medicaid^b Parents up to 138% of the FPL are eligible for Medicaid^b 	 Pregnancy Medicaid eligibility is determined by each state, ranging from 138% to 380% of the FPL Pregnant women can move from marketplace to Medicaid 	 Parents up to 138% of the FPL are eligible for Medicaid Some new mothers can move to marketplace and be eligible for subsidies (100% to 400% of the FPL)
Nonexpansion States	 Childless adults are not eligible for Medicaid^c Parents' eligibility is determined by each state, ranging from 17% to 100% of the FPL 	 Pregnancy Medicaid eligibility is determined by each state, ranging from 138% to 306% of the FPL Pregnant women can move from marketplace to Medicaid 	 Parents' eligibility is determined by each state, ranging from 17% to 100% of the FPL Some new mothers can move to marketplace and be eligible for subsidies (100% to 400% of the FPL)

^a Reproductive age is defined as ages 15 to 44; state Medicaid expansion covers adults ages 19 to 64.

^b The District of Columbia is an exception and covers childless adults up to 215% of the FPL and parents up to 221% of the FPL; Connecticut has also increased parent income eligibility to 160% of the FPL.

^c Wisconsin is an exception and covers childless adults up to 100% of the FPL.

Source: Kaiser Family Foundation (KFF), as of January 1, 2020, and HealthCare.gov, as of June 30, 2020.

Medicaid Expansion Can Help Women Initiate Care Prior to Conception, a Critical First Step for Healthy Pregnancies and Births

Without expanded Medicaid eligibility, low-income women without children have limited access to family planning services, preventative care before conception, and prenatal care in the earliest stages of pregnancy. Accessing health care prior to conception provides a window of opportunity for providers to assess and treat health conditions before pregnancy—which should lead to safer and healthier births with fewer complications. The result is lower rates of maternal mortality and adverse birth outcomes, including infant mortality, low birthweight, and preterm birth.^{4,5}

WHAT IMPACT DOES MEDICAID EXPANSION HAVE?

Medicaid expansion provides women with access to needed health services during the perinatal period, reduces racial disparities in adverse birth outcomes, and bolsters economic security through reduced medical spending and debt.

Medicaid Expansion Provides Vital Coverage for Families of Color

Families of color are more likely to lack insurance and experience financial insecurity.^{6,7} Medicaid expansion increases access to health insurance coverage, and supports the health and financial wellbeing of families. Because expanding Medicaid affects multiple issues that disproportionately impact families of color, this policy is more likely than other policies to help narrow racial and ethnic disparities.



Strong Causal Studies Show That Medicaid Expansion Impacts Five Prenatal-to-3 Policy Goals

Examples of Impact:



Note. Results are based on comprehensive reviews of the evidence. The letters in parentheses in the table above correspond to a strong causal study in the comprehensive evidence review of Medicaid expansion. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at <u>pn3policy.org</u>.

WHAT DO WE STILL NEED TO LEARN ABOUT MEDICAID EXPANSION?

Little Is Known About the Health Impacts of Medicaid Expansion on Fathers and Children Beyond Infancy

Although the effects of Medicaid expansion on mothers and babies are well known, limited research explores the impacts of Medicaid expansion on fathers specifically—even though the health of both parents is important to child development. Moreover, Medicaid expansion improves birth outcomes for babies of color and reduces overall child neglect, but more studies should examine how Medicaid expansion affects child health more broadly.

More Research Is Needed to Identify the Best Ways to Expand Health Insurance Coverage and to Understand How Other Policies Can Enhance the Impacts of Expanded Eligibility

States would benefit from knowing more about how to reduce administrative burdens to increase Medicaid enrollment and continuous coverage for enrollees. Additional evaluations also will be necessary as states implement new strategies beyond Medicaid income eligibility expansion to extend health insurance coverage, such as the extension of continuous Medicaid coverage for 12 months postpartum.

Tracking and Evaluating How States Have Responded to COVID-19 Will Be Essential

In response to the COVID-19 pandemic, the Families First Coronavirus Response Act provided a temporary 6.2 percentage point increase to each state's and territory's Federal Medical Assistance Percentage if the state or territory met certain criteria to support residents affected by COVID-19.⁸ As of July 2020, 12 states have allowed people who have recently lost health coverage an opportunity to enroll in coverage midyear, even without a qualifying event.⁹ In addition, Section 1135 of the Social Security Act was triggered in response to COVID-19; Section 1135 allows the Health and Human Services secretary to waive or modify Medicaid requirements during a national emergency.¹⁰ Flexibilities allowed under Section 1135 relate to provider participation requirements, preapproval requirements, and modification of performance deadlines and timetables. As of July 2020, all 51 states have temporarily waived licensing requirements for physicians, allowing them to practice across state lines both virtually and in person.¹¹ The temporary and long-term effects on Medicaid policy of unemployment and subsequent loss of health insurance coverage, and of expansion of telehealth services, are still to be determined as the pandemic continues.

R

Search the new Prenatal-to-3 Policy Clearinghouse for an ongoing inventory of rigorous evidence reviews at **pn3policy.org/clearinghouse**.

HOW DO STATES VARY BASED ON THEIR ADOPTION AND IMPLEMENTATION OF MEDICAID EXPANSION?

To date, 37 states have adopted and fully implemented the ACA expansion of Medicaid coverage to most adults with incomes up to 138% of the FPL. Missouri and Oklahoma also have adopted Medicaid expansion but have not yet fully implemented the policy and are excluded from the count of 37 states.

Although 37 States Have Implemented Medicaid Expansion, Progress Is Still Imperative in Many States

Of the 37 states that have implemented Medicaid expansion, only two states have implemented more generous policies to extend coverage beyond the ACA guidelines, and four of the 37 states have actually implemented policies that could limit participation. Among the 14 states that have not fully implemented Medicaid expansion, nine have adopted regressive policies or made no attempt to implement expansion. However, three nonexpansion states show movement toward policy adoption, with considerable momentum to adopt and implement Medicaid expansion. Two other states (Missouri and Oklahoma) have adopted but not yet fully implemented Medicaid expansion.

How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?

Policy adoption does not typically happen quickly. States may introduce legislation several times before adopting a policy and take even more time to fully implement it. States in which there has been considerable legislative initiative have made greater progress toward, and are likely closer to, adopting and implementing a policy compared to states in which there has been little to no legislative initiative. Once a policy is adopted, some states make the benefits more generous over time, whereas other states may rescind benefits in bills during subsequent legislative sessions. This variation in the legislative process provides greater insights to state policy leaders on where their state stands relative to others.

Relying on comprehensive research of Medicaid state plan amendments (SPAs), Section 1115 waivers, state documents, statutes, and legislation regarding Medicaid and state health care programs, we determined:

- whether (yes or no) each state had adopted and fully implemented Medicaid expansion by October 1, 2020, and
- what progress each state had made by August 5, 2020, toward adopting and fully implementing Medicaid expansion.

The figure on the following page shows the progress states have made to date toward adopting and fully implementing Medicaid expansion. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Have States Adopted and Fully Implemented the Medicaid Expansion Under the ACA?

Progress		Detail	# of States
Yes	10	Yes, and the state adopted and implemented Medicaid expansion to additional populations.	2
	9	Yes, the state adopted and implemented the Medicaid expansion as defined in the ACA.	28
	8	Yes, but the state implemented additional requirements that could limit participation.	4
	7	Yes, but Medicaid expansion is not a permanent fixture (e.g., it could sunset based on current language in state plan amendment (SPA) or statute).	3
Some Progress	6	No, the state has adopted Medicaid expansion but has not fully implemented the law.	2
	5		
	4		
No	3	No, but there has been considerable initiative to adopt and implement Medicaid expansion.	3
	2		
	1	No, and there has been little initiative to adopt and implement Medicaid expansion.	4
Regressive	0	No, and the state passed legislation to limit approaches available to adopt Medicaid expansion.	5



Numbers in the map below correspond to each state's level of progress, shown in the figure above. A higher number indicates a greater level of progress.

ME 9


In Nonexpansion States, Childless Adults Are Not Eligible for Medicaid Coverage

Childless adults are not eligible for coverage through Medicaid in states that have not expanded Medicaid (with the exception of Wisconsin, which provides coverage up to 100% of the FPL or \$12,760 for the entire year). In contrast, in all expansion states, childless adults are eligible with incomes up to 138% of the FPL (\$17,609), and the District of Columbia is even more generous, granting coverage to childless adults with incomes up to 215% of the FPL (\$27,434). The income level to qualify for Medicaid coverage in 2020 is based on the federal poverty level for the 48 contiguous states and the District of Columbia. Hawaii and Alaska have slightly higher levels.

Medicaid Income Eligibility Limits for <u>Childless Adults</u> as a Percentage of the Federal Poverty Level



States with a "Yes" have expanded income eligibility for health insurance.

Sources: As of October 1, 2020. Medicaid state plan amendments (SPAs) and Section 1115 waivers, as of October 1, 2020; Kaiser Family Foundation (KFF), as of January 1, 2020; and Ballotpedia.org, as of August 1, 2020. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Many Low-Income Parents Are Not Eligible for Medicaid Coverage in Nonexpansion States

For low-income parents in nonexpansion states, income eligibility varies from 17% of the FPL for a family of three in Texas (\$3,692) to 100% of the FPL for a family of three in Wisconsin (\$21,720). In contrast, in expansion states, parents are eligible with incomes up to 138% of the FPL for a family of three, with Connecticut (160% of the FPL or \$34,752) and the District of Columbia (221% of the FPL or \$48,001) setting more generous income guidelines.

Medicaid Income Eligibility Limits for <u>Parents</u> as a Percentage of the Federal Poverty Level



States with a "Yes" have expanded income eligibility for health insurance.

Sources: As of October 1, 2020. Medicaid state plan amendments (SPAs) and Section 1115 waivers, as of October 1, 2020; Kaiser Family Foundation (KFF), as of January 1, 2020; and Ballotpedia.org, as of August 1, 2020. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Regardless of Expansion Status, Eligibility Guidelines Are Higher for Pregnant Women, but Still Vary by State

Medicaid coverage for pregnant women is set at a higher income eligibility guideline than for childless adults or parents, regardless of expansion status, ranging from 138% of the FPL in Idaho and Louisiana (expansion states), Oklahoma (adopted expansion but has not fully implemented expansion yet), and South Dakota (nonexpansion states) to 380% of the FPL in Iowa (expansion state).

Medicaid Income Eligibility Limits for <u>Pregnant Women</u> as a Percentage of the Federal Poverty Level



States with a "Yes" have expanded income eligibility for health insurance.

Sources: As of October 1, 2020. Medicaid state plan amendments (SPAs) and Section 1115 waivers, as of October 1, 2020; Kaiser Family Foundation (KFF), as of January 1, 2020; and Ballotpedia.org, as of August 1, 2020. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Lack of Health Insurance Prevents Women of Childbearing Age From Accessing Health Care That Can Lead to Healthier Perinatal Outcomes and Stronger Financial Security

Access to health insurance allows women of childbearing age to seek affordable medical care prior to becoming pregnant, and to begin prenatal care earlier once they become pregnant, which is linked to healthier birth outcomes. In each state, the percentage of low-income women (incomes at 138% of the FPL and below) who lack health insurance indicates the proportion of women in that state who could be served by expanding eligibility and access to Medicaid. Currently, nearly half of income-eligible women lack health insurance in Texas, which has the highest uninsurance rate in the country; however, only 5.4% of income-eligible women lack health insurance in Vermont, a state that has expanded Medicaid coverage and has the lowest uninsurance rate in the country.

Lack of Health Insurance

% of low-income women of childbearing age who do NOT have any health insurance coverage



States with a "Yes" have expanded income eligibility for health insurance.

Sources: As of October 1, 2020. Medicaid state plan amendments (SPAs) and Section 1115 waivers, as of October 1, 2020; and 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS). For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.



REDUCED ADMINISTRATIVE BURDEN FOR SNAP

A median recertification interval of 12 months or longer for SNAP is an effective state POLICY to impact:



Healthy and Equitable Births

Parental Health and Emotional Wellbeing Nurturing and Responsive Child-Parent Relationships Optim Healt Develo

Nurturing

State policies related to the administration of the Supplemental Nutrition Assistance Program (SNAP) have a significant impact on:

• SNAP participation rates among eligible households.

The most effective policies to reduce administrative burden and increase participation in SNAP include:

- longer recertification intervals (greater than 12 months); and
- a combination of policies that reduce the administrative burden related to enrollment and recertification for SNAP.

32

states have a median recertification interval of 12 months or longer among households with SNAP-eligible children under age 18.

WHAT IS ADMINISTRATIVE BURDEN?

Administrative burden refers to the barriers that increase the costs—time, money, and psychological distress—of applying for and maintaining enrollment in any public assistance program.

WHY IS ADMINISTRATIVE BURDEN IMPORTANT?

Reducing the administrative burden associated with applying for and maintaining enrollment in public benefit programs can help more caregivers and children access the assistance and benefits they need to stay healthy. The research presented here focuses on administrative burden for SNAP, but policies to reduce administrative burden apply to any public assistance and benefit program that states implement.

WHY IS REDUCED ADMINISTRATIVE BURDEN FOR SNAP IMPORTANT?

SNAP Serves Millions of Children Yearly

Known as the Food Stamp program until 2008, SNAP is the largest nutrition program in the United States.¹ The program is available to all low-income^a households and serves millions of families each year. SNAP is not targeted toward a particular subpopulation, but the majority of SNAP recipients are in households with children. In 2018, nearly one-quarter of all children under age 3 (24.1%) were living in households that reported receiving SNAP in the prior 12 months—totaling 2.7 million children.²

SNAP Reduces Poverty and Food Insecurity, Particularly Among Children

In 2017, SNAP lifted 3.4 million people in the United States out of poverty, including 1.5 million children.³ Importantly, access to SNAP has been shown to reduce childhood food insecurity by up to 36%.⁴

SNAP Has a Positive Impact on Child Health and Wellbeing

Receipt of SNAP is associated with improved birth outcomes,⁵ increased health care access among children,⁶ and improved long-term child health.⁷

SNAP Take-Up Rates Vary Considerably by State, Highlighting That Administrative Burden Has an Impact on Program Participation

SNAP benefit levels and general eligibility criteria are set at the federal level, but states have flexibility to adjust program administration, including the administrative burden associated with program participation. Participation in SNAP among those eligible has risen in recent years from 53% in 2001 to 85% in 2016, but this percentage still varies considerably by state—highlighting the effect that state policies have on the proportion of eligible households that are served.⁸

Whereas Burdensome Policies Decrease Participation in SNAP, Accommodative Policies Boost Participation and Could Save Costs

Short intervals between eligibility recertifications that must be completed in person may require participants to more frequently take time off of work or find transportation or child care, increasing the time and monetary costs associated with participation. In contrast, policies such as those that simplify income reporting^b or allow longer recertification intervals can reduce the administrative burden and therefore increase participation. A 2019 USDA report found that states with streamlined administrative policies decreased their per-case costs.⁹

^a Federal requirements set eligibility criteria as (a) gross income at or below 130% of the federal poverty level, (b) net income less than or equal to the poverty level, and (c) assets below \$2,250 for households without an elderly individual or person with a disability.

^b Simplified income reporting requires SNAP participants to report income changes only if the change raises their income above eligibility levels. In contrast, states without simplified reporting require participants to report all changes to income, greatly increasing the cost of maintaining eligibility among those with variable work schedules or employment.

WHAT IMPACT DOES REDUCED ADMINISTRATIVE BURDEN HAVE?

Policies that reduce administrative burden for SNAP increase participation rates among eligible households. Authorization of longer recertification intervals is the most effective individual policy for increasing participation. However, implementing one policy alone is not as effective as implementing a set of policies that work together to reduce administrative burden related to SNAP enrollment and recertification.

The Most Effective Way to Reduce Administrative Burden Is to Implement a Combination of Policies

According to a large national study, changes in administrative policies taken as a whole explained 28.5% of the increase in SNAP participation between 2007 and 2011. The caseload rose 68.7% over that period.¹⁰ Similarly, an index including multiple state SNAP policies increased SNAP enrollment by 22% to 34% from 1996 to 2015, which means that the combination of policies had twice the effect size on participation compared to that of any individual policy.¹¹ Policies included simplified income reporting, longer recertification intervals, phone interviews, the operation of call centers, online applications, Supplemental Security Income interfacing, vehicle exemptions from assets tests, and broad-based categorical eligibility.

Strong Causal Studies Show That Reduced Administrative Burden for SNAP Impacts Two Prenatal-to-3 Policy Goals

Examples of Impact:

- Recertification intervals longer than 12 months led to an 11.4 percentage point increase in SNAP
 participation among households with children (12 percentage points among female-headed
 households) (E)
- The elimination of policies that added transaction costs and stigma to SNAP participation explained 14.6% of the SNAP caseload increase from 2000 to 2016 (A)
- Policies lengthening recertification intervals to longer than 3 months were associated with a 5.8% increase in SNAP participation from 2000 to 2009 (K)



Access to Needed

Services

 Participation in SNAP reduced household food insecurity by up to 36% in households with children⁴

Note. Results are based on comprehensive reviews of the evidence. The letters in parentheses in the table above correspond to a strong causal study in the comprehensive evidence review of reduced administrative burden for SNAP. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at pn3policy.org.

WHAT DO WE STILL NEED TO LEARN ABOUT REDUCED ADMINISTRATIVE BURDEN FOR SNAP?

Little Is Known About How Reducing Administrative Burden for SNAP Impacts People of Color

The evidence to date does not examine differential impacts of administrative burden by race, ethnicity, or socioeconomic status for families eligible for SNAP benefits. However, research on administrative burden in other programs, such as Medicaid and WIC, shows that administrative burden falls disproportionally on communities of color and low-income communities, and that reducing administrative burden can have a positive impact on enrollment rates.^{12,13} These findings likely would be applicable to SNAP participation as well, but more research specifically on SNAP would be helpful.

Learning More About How SNAP Administrative Burden Affects Fathers and Children Would Be Beneficial

Additional studies also can help highlight how fathers, particularly those who pay child support, are affected by administrative burden policies, as well as the families who receive child support payments. Despite the favorable evidence that administrative burden policies have demonstrated in impacting access to needed services, understanding how these policies can affect longer-term child outcomes also is essential.

More Research Is Needed to Identify the Best Ways for States to Reduce Administrative Burden for SNAP, and How Reduced Administrative Burden for SNAP Influences Other Policies

States are implementing a variety of new strategies to reduce administrative burden, including mobile use technology, online applications, and customer service call centers, among others, but most of these methods have not yet been included in studies of SNAP administrative burden. More studies on the ideal combination of policies to reduce administrative burden would also be helpful.

Tracking and Evaluating How States Have Responded to COVID-19 Will Be Essential

In response to the COVID-19 pandemic, the federal government provided states with additional flexibility to provide SNAP benefits to the many families faced with sudden financial need. As of July 2020, all states had elected to provide at least 2 months of emergency supplementary benefits to their SNAP participants, and 48 states had been approved to provide meal replacement funds for children eligible for free and reduced-cost lunch whose schools were closed. Also, 47 states extended their certification periods, 20 states allowed telephonic signature requirements, and 45 states had temporarily waived interview requirements. It remains to be seen how the SNAP caseload will transform as a result of the pandemic, and whether some of the more flexible policies being newly implemented will be retained over time.¹⁴



Search the new Prenatal-to-3 Policy Clearinghouse for an ongoing inventory of rigorous evidence reviews at **pn3policy.org/clearinghouse**.

HOW DO STATES VARY BASED ON THEIR ADOPTION AND IMPLEMENTATION OF REDUCING ADMINISTRATIVE BURDEN FOR SNAP?

Currently, in 32 states, households with SNAP-eligible children have a median recertification interval of at least 12 months, whereas the rest of the states have shorter median intervals (typically 6 months).

The Majority of States Have a Median Recertification Interval of 12 Months or Longer, but Many Also Have Regressive Policies

Thirty-two states have a median recertification interval of 12 months or longer. In contrast, 19 states have a recertification interval of less than 12 months. Whereas seven of the 19 states have legislation that specifies that a 12-month recertification interval is possible, 12 states have regressive policies specifying that a recertification interval of 12 months is not allowed.

How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?

Policy adoption does not typically happen quickly. States may introduce legislation several times before adopting a policy and take even more time to fully implement it. States in which there has been considerable legislative initiative have made greater progress toward and are likely closer to adopting and implementing a policy compared to states in which there has been little to no legislative initiative. Once a policy is adopted, some states make the benefits more generous over time, whereas other states may rescind benefits in bills during subsequent legislative sessions. This variation in the legislative process provides greater insights to state policy leaders on where their state stands relative to others.

Relying on comprehensive research of state Supplemental Nutrition Assistance Program manuals, state statues, and filed state legislation since 2017, and data from the United States Department of Agriculture (USDA) Fiscal Year 2018 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel we determined:

- whether (yes or no) each state's median recertification interval was 12 months or longer among households with SNAP-eligible children under age 18 in 2018, and
- what progress each state had made by June 30, 2020, toward allowing for a recertification interval of at least 12 months in their SNAP manual.

The figure on the following page shows the progress states have made to date toward having a median recertification interval that is 12 months or longer among households with SNAP-eligible children under age 18 and allowing for a recertification interval of at least 12 months in their SNAP manual. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Have States Adopted and Fully Implemented a Median Recertification Length of 12 Months or Longer, Among Households With SNAP-Eligible Children Under Age 18?

Progress		Detail	# of States
	10		
Vez	9	Yes, and the SNAP manual requires a minimum of a 12-month recertification interval.	21
res	8	Yes, but the SNAP manual allows for recertification intervals that are less than 12 months.	10
	7	Yes, but the SNAP manual provides little specific recertification interval guidance.	1
	6		
Some Progress	5	No, but the SNAP manual does specify a possible 12-month recertification interval.	7
	4		
No	3		
	2		
	1		
Regressive	0	No, and the SNAP manual does not allow for a recertification interval of at least 12 months.	12

AK O

Numbers in the map below correspond to each state's level of progress, shown in the figure above. A higher number indicates a greater level of progress.

ME 9

					WI 8				VT 9	NH 5
WA 9	ID O	MT 9	ND 5	MN 9	IL 9	MI 8		NY O	MA 9	
OR 9	NV O	WY O	SD 9	IA O	IN 9	ОН 8	PA 8	NJ 8	С Т 9	RI 9
CA 9	UT 0	CO 5	NE O	МО 7	KY 8	WV 9	VA 8	MD 5	DE 9	
	AZ 5	NM 9	KS 9	AR 8	TN 9	<mark>NС</mark> 5	SC 5	DC 8		
			ОК 9	LA 9	MS 0	AL 9	GA O			
HI 8			TX 0					FL O		

Recertification Interval Lengths Vary by State

Most states have a median recertification interval of 12 months or longer. States' recertification intervals range from 5 months in Wyoming to 13 months in nine states (Arkansas, Connecticut, Kansas, Louisiana, Massachusetts, Missouri, Oklahoma, Pennsylvania, and West Virginia).

The following table shows the calculated median recertification interval length compared to the recertification interval length specified in the state manual among households with SNAP-eligible children under age 18 for each state.

Length of Recertification Interval (Months) Among Households With SNAP-Eligible Children Under Age 18

State	Calculated Median Recertification Interval Length (in months)	Length of Recertification Interval Specified in State Manual (in months)
Alabama	12	12
Alaska	7	6
Arizona	6	12
Arkansas	13	4 and 12
California	12	No more than 12
Colorado	6	6 and 12
Connecticut	13	12
Delaware	12	12
District of Columbia	12	6 and 12
Florida	6	6
Georgia	6	6
Hawaii	12	No less than 3, no more than 12
Idaho	6	6
Illinois	12	12
Indiana	12	12
lowa	6	4 and 6
Kansas	13	12
Kentucky	12	4 and 6
Louisiana	13	12
Maine	12	12
Maryland	7	6 and 12
Massachusetts	13	12

(continued)

POLICY: REDUCED ADMINISTRATIVE BURDEN FOR SNAP

(continued)

State	Calculated Median Recertification Interval Length (in months)	Length of Recertification Interval Specified in State Manual (in months)
Michigan	12	3 and 12
Minnesota	12	12
Mississippi	10	1, 2, and 6
Missouri	13	No guidance for households without elderly individuals or individuals with disabilities
Montana	12	12
Nebraska	6	5 and 6
Nevada	6	6
New Hampshire	6	1, 4, and 12
New Jersey	12	1, 2, 3, and 12
New Mexico	12	12
New York	11	6
North Carolina	6	6 and 12
North Dakota	6	6 and 12
Ohio	12	4, 5, 6, and 12
Oklahoma	13	12
Oregon	12	12
Pennsylvania	13	6 and 12
Rhode Island	12	12
South Carolina	6	6 and 12
South Dakota	12	12
Tennessee	12	12
Texas	6	6
Utah	6	6
Vermont	12	12
Virginia	12	1, 4, and 5
Washington	12	12
West Virginia	13	12
Wisconsin	12	6 and 12
Wyoming	5	4, 5 and 6

Sources: **Calculated Median:** United States Department of Agriculture (USDA) Fiscal Year 2018 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel, as of 2018. **Length of Recertification Interval:** State Supplemental Nutrition Assistance manuals, state statutes, and filed state legislation since 2017, as of June 30, 2020. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

The Percentage of Eligible Children Who Do Not Receive SNAP Varies by State

Only 2% of households with SNAP-eligible children go unserved in Tennessee, whereas, in California, over one in four households with SNAP-eligible children (26.7%) do not receive services—the highest rate in the US.

ME 7.3% AK 7.4% **WI** 6.7% **VT** 9.8% NH 11.5% **MT** 7.6% **MN** 13.1% **IL** 8.2% ND WA ID MI NY MA 3.9% 8.7% 9.4% 9.1% 8.1% 13.0% **PA** 5.2% OR NV WY SD IN 4.7% OH **NJ** 21.2% **CT** 11.7% **RI** 6.0% IA 7.1% 5.0% 20.5% 11.7% 6.5% 4.7% **VA** 5.3% **CA** 26.7% **MO** 3.2% **KY** 5.6% UT CO NE WV MD DF 3.9% 17.1% 8.7% 5.6% 11.2% 14.3% AZ NM KS AR ΤN NC SC DC 6.8% 10.9% 6.6% 2.0% 7.5% 11.6% 9.5% 6.6% **OK** 5.2% **LA** 2.9% MS AL GA 4.7% 3.0% 5.9% **HI** 14.3% **TX** 19.8% FL 8.7% Yes No

Lack of Access to SNAP

% of eligible families with children under age 18 NOT receiving SNAP

States with a "Yes" have reduced administrative burden for SNAP.

Sources: United States Department of Agriculture (USDA) Fiscal Year 2018 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel, as of 2018; State Supplemental Nutrition Assistance manuals, state statutes, and filed state legislation since 2017, as of June 30, 2020; and 2016-2018 Urban Institute's TRIM3 project. For additional information, please refer to the Methods and Sources section of pn3policy.org.



Explore your state's interactive data at **pn3policy.org/interactive**.



PAID FAMILY LEAVE

A paid family leave program of a minimum of 6 weeks is an effective state POLICY to impact:



A state program providing a minimum of 6 weeks of paid leave following the birth, adoption, or the placement of a child into foster care:

- increases the likelihood and length of leavetaking for mothers and fathers;
- reduces racial disparities in leave-taking;
- · boosts maternal labor force attachment;
- improves mothers' mental health;
- · fosters better child-parent relationships; and
- supports children's health and development.

5

states have adopted and fully implemented a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care.

A total of nine states have adopted paid family leave policies of any length.

WHAT IS PAID FAMILY LEAVE?

State paid family leave programs require employers to allow eligible parents time off from work to bond with a new child while receiving a portion of their wages. States allow parents to take between 4 and 12 weeks off of work, with pay varying based on a proportion of the employee's wages prior to taking leave. States also vary in eligibility requirements, job protection provisions, and funding mechanisms.

WHY IS PAID FAMILY LEAVE IMPORTANT?

Without Paid Family Leave, Most Parents Only Have Access to Unpaid Leave

In states without paid family leave, the only access to leave is through the federal Family and Medical Leave Act (FMLA), which allows qualifying workers to receive 12 weeks of unpaid, job-protected leave with continuous health coverage.^{1,2}

Many Parents Do Not Qualify for Unpaid Leave, and Some Who Qualify Choose Not to Take It

Only 60% of workers qualify for the FMLA,³ and the policy largely benefits higher-income and White workers.⁴ Because the FMLA provides only unpaid leave to eligible workers, many parents with low incomes may not use the time off or may shorten the duration of leave to avoid losing wages.

Paid Family Leave Keeps Parents Working and Supports the Health and Wellbeing of Children and Parents

By providing parents with the time and financial security to stay home to bond with a new child, state paid family leave programs can improve the economic security of the family and keep parents engaged in the workforce.^{5,6} Paid family leave also supports child and parent health and wellbeing. Paid family leave programs help new parents have more time to bond with their babies, develop positive caregiving skills, and build the foundation for healthy attachment.⁷ Parents also may be better able to seek timely and preventative health care for themselves and their children.^{8,9}

WHAT IMPACT DOES PAID FAMILY LEAVE HAVE?

Paid family leave policies providing a minimum of 6 weeks of paid leave to new parents increase the length and likelihood of leave-taking, reduce disparities in leave-taking, boost mothers' labor force participation, improve mothers' mental health, and foster better child-parent relationships and child health.

Paid Family Leave Increases Leave-Taking and Benefits Families of Color the Most

In states with paid family leave, parents of all races and ethnicities are more likely to take leave compared to parents in states without paid family leave, but the greatest impacts are for Black mothers.



Search the new Prenatal-to-3 Policy Clearinghouse for an ongoing inventory of rigorous evidence reviews at **pn3policy.org/clearinghouse**.

Strong Causal Studies Show That Paid Family Leave Impacts Six Prenatal-to-3 Policy Goals

Examples of Impact:



• Access to paid family leave led to a 1.3 percentage point increase in exclusive breastfeeding at age 6 months (G)

Optimal Child Health and Development

- Among Black mothers, access to paid family leave led to a 7.5 percentage point increase in initiating breastfeeding (K)
- Among low-income families, access to paid family leave led to a 5 to 7 percentage point decline in the likelihood of infants receiving late vaccinations (E)
- Access to paid family leave led to 2.8 fewer cases of pediatric abusive head trauma per 100,000 children under age 2, and 5.1 fewer cases per 100,000 children under age 1 (I)

Note. Results are based on comprehensive reviews of the evidence. The letters in parentheses in the table above correspond to a strong causal study in the comprehensive evidence review of paid family leave. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at <u>pn3policy.org</u>.

WHAT DO WE STILL NEED TO LEARN ABOUT PAID FAMILY LEAVE?

More Research Is Necessary to Understand the Impacts of Paid Family Leave on Fathers

The vast majority of the research to date examines how paid family leave impacts mothers, despite the fact that research from other countries has shown positive outcomes for the entire family if fathers take paternity leave.¹⁰ Noncustodial fathers are completely absent from the research.

Evaluating the Implementation of Paid Family Leave Across State Contexts Will Be Critical

Most of the research on paid family leave comes from two states (New Jersey and California), due to the recent enactment and implementation of statewide leave laws. More time and more studies are needed to fully assess the impact of paid family leave as additional states begin to implement their laws and others expand the generosity of their current laws.

Additional Studies Should Identify How Best to Implement Paid Family Leave

Fathers and lower-income families typically have low leave take-up rates.¹¹ States would benefit from knowing how to increase take-up rates among specific populations. Conclusions about fathers and lower-income families cannot be made until they are adequately represented in the research. As states implement paid family leave policies, it will be helpful to track and evaluate who is taking leave, in addition to other data points that will further an understanding of the optimal length of paid family leave, the ideal percentage of pay, and the best funding source.

Understanding How Other Policies Interact With Paid Family Leave Will Help States

Because parents with access to paid leave remain attached to the workforce to a greater degree, it is particularly imperative that families have access to affordable and high-quality child care. More research will be necessary to understand how paid family leave interacts with child care policies and other policies relevant to the prenatal-to-3 population.

Tracking and Evaluating How States Have Responded to COVID-19 Will Be Essential

As part of the Coronavirus Aid, Relief, and Economic Security (CARES) Act, the Emergency Family and Medical Leave Expansion Act provides up to 12 weeks of paid public health emergency leave from March 18, 2020, until December 21, 2020.¹² Leave can only be used for employees who are unable to work (or telework) because they need to care for a child under 18 whose school or place of care is closed or whose child care provider is unavailable because of the public health emergency. The CARES Act amends a previous emergency paid family leave policy under the Families First Coronavirus Response Act (FFCRA), which initially provided employees up to 10 weeks of paid family and medical leave. The lasting effects on public health and the economy of this emergency paid family leave policy remain to be determined.

HOW DO STATES VARY BASED ON THEIR ADOPTION AND IMPLEMENTATION OF PAID FAMILY LEAVE?

Of the nine states that have enacted paid family leave, only five states (California, the District of Columbia, New Jersey, New York, and Washington) have fully implemented a state paid family leave program of at least 6 weeks and have begun paying benefits to families.

The Majority of States Have Room for Progress in Paid Family Leave Implementation

Forty-two states have neither implemented nor passed a statewide paid family leave program, and more than half of those states lack momentum to pass such legislation. However, among the 42 states without paid family leave, some are making progress: Twelve states have implemented paid family leave for specific workers.

How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?

Policy adoption does not typically happen quickly. States may introduce legislation several times before adopting a policy and take even more time to fully implement it. States in which there has been considerable legislative initiative have made greater progress toward and are likely closer to adopting and implementing a policy compared to states in which there has been little to no legislative initiative. Once a policy is adopted, some states make the benefits more generous over time, whereas other states may rescind benefits in bills during subsequent legislative sessions. This variation in the legislative process provides greater insights to state policy leaders on where their state stands relative to others.

Relying on comprehensive research of state statutes, laws, and filed legislation since 2015, we determined:

- whether (yes or no) each state had adopted and fully implemented a paid family leave program of at least 6 weeks by October 1, 2020, and
- what progress each state had made by June 30, 2020, toward adopting and fully implementing a paid family leave program of at least 6 weeks.

The following figure shows the progress states have made to date toward adopting and fully implementing a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Have States Adopted and Fully Implemented a Paid Family Leave Program of a Minimum of 6 Weeks?

Progress		Detail	# of States
Yes	10	Yes, and the state has adopted and fully implemented a paid family leave program that provides more than 6 weeks of benefits.	5
	9		
	8	Yes, the state has fully adopted and implemented a paid family leave program that provides a maximum of 6 weeks of benefits.	0
	7		
	6	No, but the state has enacted a paid family leave law that will provide at least 6 weeks of benefits once fully implemented.	3
Some Progress	5	No, but the state has a paid family leave program that provides fewer than 6 weeks of benefits.	1
	4	No, but the state has a paid family leave program for eligible state employees.	12
No	3	No, but there has been considerable legislative initiative to adopt and implement a paid family leave program.	1
	2		
	1	No, and there has been little legislative initiative to adopt and implement a paid family leave program.	29
Regressive	0		

AK 1 Numbers in the map below correspond to each state's level of progress, shown in the figure above. A higher number indicates a greater level of progress.

ME 1

					WI 1				VT 1	NH 1
WA 10	ID 4	MT 1	ND 1	MN 1	IL 1	MI 1		NY 10	MA 6	
OR 6	NV 1	WY 1	SD 4	IA 1	IN 4	ОН 1	PA 1	NJ 10	СТ 6	RI 5
CA 10	UT 4	CO 3	NE 1	MO 4	КҮ 1	WV 1	VA 4	MD 1	DE 4	
	AZ 1	NM 4	KS 4	AR 4	TN 1	NC 4	SC 1	DC 10		
			ОК 1	LA 1	MS 1	AL 1	GA 4			
HI 1			TX 1					FL 1		

Among States With Paid Family Leave Laws, Benefits Vary

States vary in the number of weeks offered, the portion of wages paid, eligibility requirements, job protection provisions, and funding mechanisms. (See the table below).

States Differ in the Number of Weeks Paid

States offer between 4 and 12 weeks of paid time off.

Wage Reimbursement Looks Different in Each State

Three states cap benefits at a fixed amount (California, the District of Columbia, and Washington), and six states cap benefits at a percentage of the respective states' average weekly wage or will do so when legislation is fully implemented.

The table below shows how states with paid family leave laws differ in the maximum number of weeks paid, the value of the leave benefit, and when benefits take effect. The value of the benefit varies by state. For example, in Massachusetts, 64% of the average weekly 2020 wage amounts to \$916, whereas in Oregon, 120% of the average weekly 2020 wage amounts to \$1,312.

State Variation in Paid Family Leave: Number of Weeks, Benefit Value, and Benefit Timeline

State With a Paid Family Leave Program	Maximum Number of Weeks of Paid Family Leave Benefit	Maximum Paid Family Leave Benefit Value	Date When Paid Family Leave Benefit Takes Effect
California	8	\$1,300	Already in effect.
Connecticut	12	60 times the minimum fair wage	The state's paid family leave program was passed in 2019. Premiums will be implemented in 2021, and benefits will become effective in 2022.
District of Columbia	8	\$1,000	Already in effect.
Massachusetts	12	64% of the state average weekly wage	The state's paid family leave program was enacted in 2018, premiums became effective in July 2019, and benefits will become effective in January 2021. A bill filed in 2020, SB 1045, aims to provide paid leave benefits to municipal employees. The bill was pending in committee as of June 30, 2020.
New Jersey	12	70% of the state average weekly wage	Already in effect.
New York	10	60% of the state average weekly wage	Already in effect.
Oregon	12	120% of the state average weekly wage	The state enacted paid family leave legislation in 2019 through HB 2005. Premiums will be effective in January 2022, and benefits will be effective in January 2023.
Rhode Island	4	85% of the state average weekly wage for the preceding calendar year	Already in effect.
Washington	12	\$1,000	Already in effect.

States highlighted in blue have enacted and implemented a paid family leave policy of a minimum of 6 weeks.

Source: State statutes and legislation on paid family leave, as of October 1, 2020. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Only Employees in Certain Job Sectors May Be Eligible

- Eight states (California, Connecticut, the District of Columbia, Massachusetts, New Jersey, Oregon, Rhode Island, and Washington) automatically cover or will cover all private sector employees when the legislation is fully implemented, but New York only covers most private sector employees.
- Four states automatically cover or will cover state employees when legislation is fully implemented (Massachusetts, New Jersey, Oregon, and Washington). Three states automatically cover or will cover local government employees (New Jersey, Oregon, and Washington), and one state (Massachusetts) will allow for local government employers to opt in to the program.
- Two states allow both state and local/municipal employers to opt in to their paid family leave programs (New York and Rhode Island).
- Two states (California and Connecticut) allow or will allow only some public sector employees to be automatically covered.
- Five states allow or will allow self-employed individuals to opt in to their paid family leave programs (the District of Columbia, Massachusetts, New York, Oregon, and Washington).

Benefits Are Similar for Birth and Non-Birth Parents, As Well As Adoptive and Foster Parents

All nine states provide or will provide benefits to same-sex parents when the legislation is fully implemented, but two states (New York and Oregon) explicitly prohibit discrimination on the basis of sexual orientation. Also, birth, adoptive, and foster parents have or will have the same benefits and eligibility requirements in all nine states. All nine states provide or will provide eligibility to both birth and non-birth parents. Two states (New York and Oregon) specify that gender or sex, respectively, may have no impact on eligibility. One state (Connecticut) includes specific provisions for spouses employed by the same employer, which will allow each spouse to be eligible for up to 12 weeks of compensation within any 12-month period.

Job Protection Is Common in State Paid Family Leave Policies

All nine states offer or will offer job protection through the FMLA. Three states (Massachusetts, New Jersey, and the District of Columbia) explicitly state that employers cannot retaliate against employees who take leave, and four states (New York, Oregon, Rhode Island, and Washington) have specific mention of other types of protections.

Varied Approaches Can Be Used to Fund State Paid Family Leave

Seven states (California, Connecticut, Massachusetts, New Jersey, New York, Rhode Island, and Washington) fund or will fund paid family leave through employee payroll taxes. Oregon will fund its program through both employee and employer contributions, and the District of Columbia funds its program through employer contributions. Paid family leave that is funded through employee payroll taxes alleviates some of the costs employers could incur to implement the policy.¹³



Explore your state's interactive data at **pn3policy.org/interactive**.



STATE MINIMUM WAGE

A state minimum wage of \$10 or greater is an effective state POLICY to impact:



A state minimum wage of \$10 or greater:

- increases earnings and family incomes with minimal or no adverse effects on employment;
- reduces poverty rates among children, Black and Latinx individuals, and people with lower educational attainment;
- improves birth outcomes including reduced infant mortality and low birthweight; and
- keeps children safe (reduces child neglect rates).

19

states have adopted and fully implemented a minimum wage of \$10 or greater.

WHAT IS A STATE MINIMUM WAGE?

The minimum wage establishes a floor for workers' hourly wages. The federal minimum wage requires that most hourly workers be paid at least \$7.25, but states can establish higher thresholds.¹ Currently 30 states have minimum wages higher than the federal level, with some states as high as \$15.^{2,3} Nineteen states have minimum wages of \$10 or greater.⁴

WHY IS A STATE MINIMUM WAGE IMPORTANT?

A Full-Time Worker Paid the Current Federal Minimum Wage Lives in Poverty

With a \$7.25 hourly wage (the federal minimum) and a 40-hour work week, a full-time minimum wage worker working 52 weeks yearly earns just \$15,080 each year, which is below the poverty level for two-, three-, and four-person households.⁵

Increasing the Minimum Wage Can Impact Millions of Families and Substantially Reduce Poverty

According to the Economic Policy Institute (EPI), if all states raised their minimum wages to \$15 by 2024, 40 million workers and 14.4 million of their children would benefit from higher household incomes.⁶ The EPI estimated that 40% of single parents and 67% of workers currently living in poverty would see a raise, and the US Congressional Budget Office (CBO) estimated 1.3 million fewer people would be in poverty.⁷ Increasing the state minimum wage saves on overall taxpayer costs by boosting earned income and reducing the amount of support lower-wage workers may need from public assistance programs. In particular, a \$1 increase in hourly wages for workers making below \$12.16 per hour can reduce the number of people using public assistance programs by 850,000.⁸

Women and Workers of Color Make up a Disproportionate Share of Low-Income Workers

Women and workers of color are disproportionately represented among those who earn less than \$15 per hour, and wage disparities can contribute to income and wealth disparities.⁹ White workers earn, on average, 25% more in annual income than Black workers,¹⁰ and the median net wealth of White families is estimated at 10 times that of families of color.¹¹

Higher Family Incomes That Result from Minimum Wage Increases Yield Better Social and Health Outcomes for Parents and Children

Higher incomes can help families more easily access essential resources, such as housing, food, health, and transportation—in turn reducing stress, improving a child's caregiving environment, and reducing the likelihood that a child will experience abuse, neglect, or other adverse experiences at home.

WHAT IMPACT DOES A STATE MINIMUM WAGE HAVE?

Increasing the minimum wage to \$10 or greater increases household resources and reduces child poverty, particularly in families of color. A minimum wage of \$10 or greater also improves birth outcomes and parent mental and physical health.



Search the new Prenatal-to-3 Policy Clearinghouse for an ongoing inventory of rigorous evidence reviews at **pn3policy.org/clearinghouse**.

Strong Causal Studies Show That a State Minimum Wage of \$10 or Greater Impacts Four Prenatal-to-3 Policy Goals

Examples of Impact:



- A 10% minimum wage increase boosted annual earnings between 1.3% and 8.3%, depending on the study (A,K)
- Employment impacts associated with a 10 percent minimum wage increase were found to be statistically insignificant, ranging from a 0.3 percent decrease to a 1.1 percent increase (A)
- A 10 percent increase in the minimum wage boosted, by 4 percent, the likelihood that children of mothers with no college degree had a working parent, with the greatest effects for children ages 0 through 5 (an increase of 7 percent) (Y)
- A 10% increase in the minimum wage reduced infant mortality by 3.2% (H)
- A \$1 increase in the minimum wage reduced births to adolescents by 2% (B)
- A \$1 minimum wage increase led to a 1% decrease in low birthweight (Q)

Parental Health and Emotional Wellbeing

Healthy and Equitable

Births

Sufficient Household

Resources

- A \$1 increase in the minimum wage resulted in a 3.4% to 5.9% reduction in adult (non-drug) suicides (T)
- A \$1 increase in the minimum wage led to a 7% decline in smoking during pregnancy (Q)

Optimal Child Health and Development

- A \$1 increase in the minimum wage reduced child neglect reports by 10.8% for children ages 0 to 5 (L)
- A \$1 increase in the minimum wage from birth through age 5 increased by 8.7% the likelihood that a child was reported to be in excellent or very good health from ages 6 through 12 (R)

Note: Results are based on comprehensive reviews of the evidence. The letters in parentheses in the table above correspond to a strong causal study in the comprehensive evidence review of state minimum wage. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at <u>pn3policy.org</u>.

WHAT DO WE STILL NEED TO LEARN ABOUT THE STATE MINIMUM WAGE?

Little Is Known About the Health Impacts of a Higher State Minimum Wage on Fathers and on Children Beyond Infancy

No studies were identified for the evidence review that explore how the state minimum wage affects fathers specifically; more studies would be beneficial to understand the unique impact on fathers, especially within the context of policies that often affect fathers, such as child support. The bulk of the research on children focuses on birth outcomes, but more studies are necessary to understand the impact of higher state minimum wages on children's broader health and development.

More Research Is Needed to Identify the Best Ways to Increase the State Minimum Wage

More studies are needed to understand the impact of state minimum wages that are higher than \$10, especially because seven states will have reached a minimum wage of \$15 by 2025. Research will be critical to determine whether minimum wages at the highest levels have any negative impact on factors such as employment. Also, understanding changes in the real value of the minimum wage (adjusted for inflation), rather than only the nominal value, should be included in future studies of the minimum wage.

Additional Studies Will Be Helpful to Further Understand the Effects of a State Minimum Wage on Other Policies

More research is necessary to determine how the minimum wage could affect the child care market, given that many child care workers earn wages below the highest proposed minimum wage levels. Because a higher minimum wage incentivizes greater employment, access to affordable and high-quality child care will become even more critical. Unfortunately, higher wages sometimes push families just over the income eligibility level for some income-based public benefits, preventing families from receiving support, even though they may still need the assistance. More research on how increases in the minimum wage impact other income-based policies, such as child care subsidies, Medicaid, or SNAP, would be helpful.

Tracking and Evaluating How States Have Responded to COVID-19 Will Be Essential

Prior to the COVID-19 pandemic, three states (Illinois, Nevada, and Oregon) and some municipalities in California, the District of Columbia, and Minnesota had scheduled minimum wage increases to be effective July 1, 2020, as part of a larger wage increase plan to be phased in over several years.¹² All of these states and municipalities continued with their plan following the onset of the pandemic. Virginia was set to have a minimum wage increase in January 2021, but in April 2020 Governor Ralph Northam introduced an amendment to the minimum wage bill that deferred the start date for this increase by four months (May 1, 2021).¹³ As states continue to respond to the economic impact of the pandemic, changes to minimum wage policy should be monitored.

HOW DO STATES VARY BASED ON THEIR ADOPTION AND IMPLEMENTATION OF A STATE MINIMUM WAGE OF \$10 OR GREATER?

Nineteen states have adopted and fully implemented a minimum wage of \$10 or greater.

The Majority of States Have Made Progress Toward Increasing the State Minimum Wage, but More Progress Is Needed

Although only 19 states currently have a minimum wage of \$10 or greater, several others have made progress toward increasing their state minimum wages. Among the 32 states that currently do not have a \$10 minimum wage, eleven states have minimum wages that are higher than the federal minimum wage of \$7.25, and four states are set to increase to \$10 per hour in the coming years. In contrast, nine states have regressive policies that prohibit localities from establishing their own minimum wages.

How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?

Policy adoption does not typically happen quickly. States may introduce legislation several times before adopting a policy and take even more time to fully implement it. States in which there has been considerable legislative initiative have made greater progress toward and are likely closer to adopting and implementing a policy compared to states in which there has been little to no legislative initiative. Once a policy is adopted, some states make the benefits more generous over time, whereas other states may rescind benefits in bills during subsequent legislative sessions. This variation in the legislative process provides greater insights to state policy leaders on where their state stands relative to others.

Relying on comprehensive research of state labor statutes, state labor departments, and filed legislation since 2017, we determined:

- whether (yes or no) each state had adopted and fully implemented a minimum wage of \$10 or greater by October 1, 2020, and
- what progress each state had made by June 30, 2020, toward adopting and fully implementing a minimum wage of \$10 or greater.

The figure on the following page shows the progress states have made to date toward adopting and fully implementing a minimum wage of \$10 or greater. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Progress		Detail	# of States
	10	Yes, and the state has scheduled or indexed wage increases.	18
	9		
res	8	Yes, but no future increases above \$10 are currently scheduled.	1
	7		
	6	No, but the state minimum wage is higher than the federal minimum wage, and the state has scheduled increases in place to raise the minimum wage to \$10 or greater.	4
Some Progress	5	No, but the state minimum wage is higher than the federal minimum wage, and the state currently allows for scheduled or indexed increases.	4
	4	No, but the state minimum wage is higher than the federal minimum wage. However, there are no additional scheduled or indexed increases.	3
	3	No, but there has been considerable legislative initiative to increase the state minimum wage.	10
No	2		
	1	No, and there has been little legislative initiative to increase the state minimum wage.	2
Regressive	0	No, and the state has enacted legislation to prohibit localities from establishing their own minimum wages.	9

Have States Adopted and Fully Implemented a Minimum Wage of \$10 or Greater?



Numbers in the map below correspond to each state's level of progress, shown in the figure above. A higher number indicates a greater level of progress.

ME 10

					WI 3				VT 10	NH 3
WA 10	ID O	MT 5	ND O	MN 10	IL 10	MI 6		NY 10	MA 10	
OR 10	NV 6	WY 3	SD 5	AI O	IN 3	ОН 5	PA 3	NJ 10	C T 10	RI 10
CA 10	UT 1	CO 10	NE 4	МО 6	KY 3	WV 4	VA 3	MD 10	DE 4	
	AZ 10	NM 6	КЅ 1	AR 10	TN O	NC 3	SC 3	DC 10		
			ОК 0	LA O	MS 3	AL O	GA O			
HI 8			TX 0					FL 5		

The Minimum Wage Ranges Between \$7.25 and \$15 Across All States

Current state minimum wages range from \$7.25 to \$15 per hour. Seven states have approved gradual increases to \$15 that will become effective between July 1, 2020, and 2025.¹⁴

State Hourly Minimum Wage

Nominal Minimum Wage



** Indicates no state minimum wage legislated or set below federal; the \$7.25 federal minimum wage applies to Fair Labor Standards Act covered workers.

Source: State labor statutes and state labor department websites, as of October 1, 2020. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

States Vary in How They Set Their Minimum Wages

Twenty-one states have an effective minimum wage of \$7.25. Seven states set their minimum wage at \$7.25 by statute (Idaho, Iowa, Kansas, Kentucky, North Dakota, Pennsylvania, Wisconsin), whereas six other states set their minimum wage based on the federal minimum wage in the Fair Labor Standards Act. Five states have no state minimum wage defined in their legislation at all, and three have set their state minimum wage at a level lower than the federal minimum wage, which means that employers in those states are bound to the federal minimum wage.

Some Large Cities Have Established Their Own Minimum Wages, but Some States Have Prohibited Cities from Doing So

Cities including Chicago, San Francisco, Oakland, San Jose, New York City, and Seattle have implemented local minimum wages that exceed the current state levels or that are being implemented on a faster phase-in schedule than approved state increases.¹⁵ In contrast, nine states currently prohibit cities from enacting their own minimum wage laws.¹⁶

The State Minimum Wage May Not Cover All Employees

States vary in the minimum wages set for tipped workers and individuals with disabilities, who are sometimes exempted from the prevailing minimum wage.^{17,18} Nearly every state has an exception of some form for tipped workers, and most have varying levels of exception for workers with disabilities.

The Real Value of Each State's Minimum Wage Varies

The current state hourly minimum wage ranges from a nominal value of \$7.25 (the federal minimum) to \$15 per hour. The nominal value refers to the current value of the wage without taking inflation, the cost of living, or other adjustments into account. The cost-of-living-adjusted (COLA) minimum wage accounts for the cost of living in a given state; in doing so, it provides an indication of the purchasing power of a state's nominal minimum wage. A minimum wage with a higher COLA value than nominal value has greater purchasing power than a minimum wage with a lower COLA value relative to the nominal value.

For example, two states with the same nominal minimum wage, Mississippi and New Hampshire at \$7.25, have different COLA minimum wages. In Mississippi, the COLA minimum wage is worth \$8.43, whereas the COLA minimum wage is worth less in New Hampshire, only \$6.84—meaning that the minimum wage can buy more in Mississippi than in New Hampshire, despite having the same nominal value. The COLA minimum wage ranges nationwide from a low of \$6.84 in New Hampshire to \$12.92 in the District of Columbia. The District of Columbia has both the highest nominal (\$15) and COLA minimum wage (\$12.92) in the country. The median state COLA minimum wage is \$9.36 compared to the median nominal wage of \$9.



(Adjusted for Cost of Living)

COLA State Hourly Minimum Wage

An Increase in the Minimum Wage Would Affect a Significant Number of Families

The percentage of parents with children under age 3 who earn less than \$10 per hour ranges from 5% in Rhode Island to 22.1% in Louisiana. These parents would benefit from a minimum wage increase to \$10 per hour or above.

ME 9.1% **AK** 15.4% WI **VT** 13.2% NH 13.9% 8.5% **NY** 11.3% **MA** 7.5% WA ID MT ND MN IL MI 6.5% 14.6% 14.6% 8.1% 13.3% 12.0% 15.8% OR NV WY OH **NJ** 9.8% **CT** 9.7% SD IA IN PA RI 5.0% 13.1% 12.9% 15.7% 14.9% 11.9% 12.9% 12.2% 16.6% **CA** 10.6% **CO** 14.2% **MD** 8.3% UT NE MO KY WV VA DE 10.0% 10.9% 17.1% 11.1% 15.0% 18.2% 16.5% **AR** 17.2% **DC** 6.4% AZ NM KS ΤN NC SC 13.3% 14.3% 12.2% 20.3% 13.9% 14.1% ОК LA MS AL GA 22.1% 15.0% 14.6% 19.6% 18.2% **HI** 14.4% TΧ FL 14.0% 12.3% Yes No

Earning Less Than \$10 per Hour

% of parents with children under age 3 earning less than \$10 per hour

States with a "Yes" have a minimum wage of \$10 or greater

Source: State labor statutes and state labor department websites, as of October 1, 2020. 2017-2019 Current Population Survey, Annual Social and Economic Supplement (CPS ASEC) Public Use Microdata Sample (PUMS). For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.



Explore your state's interactive data at **pn3policy.org/interactive**.



STATE EARNED INCOME TAX CREDIT

A refundable state EITC of at least 10% of the federal EITC is an effective state POLICY to impact:



A refundable state EITC of at least 10% of the federal EITC:

- promotes healthy births;
- reduces racial disparities in birth outcomes; and
- has mixed impacts on employment and family income.

18

states have adopted and fully implemented a refundable EITC of at least 10% of the federal EITC for all eligible families with any children under age 3.

WHAT IS AN EARNED INCOME TAX CREDIT (EITC)?

The Federal EITC Is a Refundable Tax Credit for Low-Income Workers

Households with at least one working adult can receive the federal EITC either as a reduction in taxes owed or as a refund if the household has no tax liability. The amount of the federal EITC increases as a percentage of income until a plateau income range is reached, then the credit amount decreases slowly as income continues to rise.¹

The State EITC Is an Additional Credit Based on a Percentage of the Federal EITC

The state EITC is a tax credit for low-income workers, typically calculated as a percentage of the federal EITC. The value and administration of the state EITC is determined by each state, including whether the state credit is refundable or nonrefundable. States typically finance their state EITCs through state income and sales taxes and general fund dollars.²

WHY IS A STATE EITC IMPORTANT?

The EITC Incentivizes Work and Provides Lump-Sum Income, Both of Which Can Reduce Poverty

Because only working tax filers are eligible for the EITC, the tax credit is intended to incentivize labor force participation. Additional income from employment, coupled with the lump-sum income of the benefit, can reduce poverty experienced by low-income families.

The EITC Helps Millions of Workers Each Year, but Working Parents Benefit the Most

Although childless workers can receive a small credit, the value of the credit is much larger for parents. The Center on Budget and Policy Priorities estimated that in 2018, 22 million families and individuals in the US received support from the federal earned income tax credit, and the credit lifted 5.6 million people out of poverty, 3 million of whom were children.³ The average federal EITC amount that year was \$3,191 for filers with children, and \$298 for filers without children.⁴ Adopting a state credit is one way for states to supplement the federal credit and increase the benefits families can receive.

The EITC Can Specifically Help Women of Color

The EITC can reduce disparities in income between racial and ethnic groups. Because many low-income families are headed by working single mothers, and women of color in particular,⁵ the EITC is expected to improve outcomes for these families more than other families.

WHAT IMPACT DOES A STATE EITC HAVE?

A refundable state EITC of at least 10% of the federal EITC leads to healthier and more equitable birth outcomes. Impacts on economic outcomes such as parents' ability to work and household resources are mixed, with mostly positive results, but some null results as well.

A Refundable State EITC Reduces Disparities in Birth Outcomes

Children whose parents receive a refundable state EITC of at least 10% of the federal EITC experience better outcomes, including higher birthweights and lower rates of having a child as an adolescent. Even more noteworthy, in states with generous refundable credits, Black mothers see the greatest reductions in low birthweight, relative to White and Hispanic mothers.

The EITC Also Can Support Parental Mental Health

The impacts of the state EITC on parent mental health are promising—the EITC leads to reductions in suicides and more quality-adjusted life years for adults. However, the impacts on physical health are not consistently positive, specifically for obesity and smoking. Because our policy goal combines both mental and physical health, the EITC cannot be considered effective at meeting this goal, despite its benefits on mental health specifically; therefore, the policy goal of parental health and emotional wellbeing is not highlighted in the chart on the following page.

Strong Causal Studies Show That a Refundable State EITC of at Least 10% of the Federal EITC Impacts Three Prenatal-to-3 Policy Goals

Examples of Impact:



Note. Results are based on comprehensive reviews of the evidence. The letters in parentheses in the table above correspond to a strong causal study in the comprehensive evidence review of the state EITC. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at <u>pn3policy.org</u>.

WHAT DO WE STILL NEED TO LEARN ABOUT THE STATE EITC?

More research exists on the impacts of the federal EITC than the state credit, and many studies examine the combined impacts without separate analyses of the state credit.

Little Is Known About the EITC's Impact on Fathers, Especially Noncustodial Fathers

Study samples focus primarily on single mothers as likely recipients of the credit, but future work should expand the scope to consider the impacts on fathers, other custodial caregivers, and noncustodial parents as well—especially those who share physical custody of their children and may still pay a significant share of the child's expenses. New York and the District of Columbia are currently the only jurisdictions that offer a credit to qualifying noncustodial parents.⁶⁷

More Research Will Help Highlight How a State EITC Impacts Child Outcomes Beyond Infancy

The impacts of the state EITC on birth outcomes are well documented, but the evidence on how the state EITC impacts later child health and safety currently shows mostly null impacts. The federal EITC, however, has been shown to have impacts in later childhood, beyond birth outcomes. The theory on how the EITC affects birth outcomes also remains unclear, and future research should work to pinpoint the mechanisms that affect birth outcomes.

More Research Is Needed to Identify the Best Ways for States to Implement an EITC

A more thorough understanding of the optimal EITC level of generosity would help states better implement an EITC. Several studies have shown that more generous and refundable state credits have larger positive impacts, but more research is still needed to determine the optimal percentage of the federal EITC that states should offer. Also, the bulk of the research focuses on families who are eligible to receive the EITC compared to those who are not eligible, rather than comparing families who actually receive the credit with those who do not. Future studies should target research on receipt of the credit rather than eligibility to receive the credit and should seek to explain variation in take-up rates.

Additional Studies Will Be Helpful to Further Understand the Effects of a State EITC on Other Policies

Unfortunately, many families who receive the EITC may become ineligible to receive certain public assistance benefits, due to the increase in earnings associated with more work. More research is necessary to understand whether the additional income offsets the loss of public assistance benefits, or whether the loss of benefits further jeopardizes financial security for the family. Because the EITC incentivizes more parents to work, additional research also will be necessary to understand how increased employment creates a higher demand for high-quality child care—and whether additional income adequately covers the cost of child care.

Tracking and Evaluating How States Have Responded to COVID-19 Will Be Essential

As of June 30, 2020, in response to the COVID-19 pandemic, California Governor Gavin Newsom passed legislation that expanded the California EITC to households making \$30,000 or less and to undocumented people who meet the same threshold with at least one child under age 6.⁸ In New York, Assemblywoman Pat Fahy introduced bill A10522 that would expand the state EITC from 30% to 40% of the federal EITC. In addition, eligibility criteria to claim the credit would expand to a larger pool of workers, including people under age 25 with no children and those with no social security numbers but who pay taxes.⁹ This bill was signed by Governor Andrew Cuomo on June 17, 2020.¹⁰ As states continue to respond to the economic impact of the pandemic, changes to EITC policy in other states remain to be seen.

HOW DO STATES VARY BASED ON THEIR ADOPTION AND IMPLEMENTATION OF THE STATE EITC?

Of the 23 states with a refundable state EITC, 18 have a credit of at least 10% of the federal EITC for all eligible families with any children under 3.

Many States Have an EITC or Some Form of Tax Break Similar to the EITC

A total of 23 states have a refundable EITC, six states have a nonrefundable EITC, and three states have a tax break for low-income residents that is similar to a nonrefundable EITC. In contrast, 19 states have no EITC or similar credit at all, nine of which have no state income tax. States without an income tax lack the tax-collection infrastructure necessary to implement a state EITC.

How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?

Policy adoption does not typically happen quickly. States may introduce legislation several times before adopting a policy and take even more time to fully implement it. States in which there has been considerable legislative initiative have made greater progress toward and are likely closer to adopting and implementing a policy compared to states in which there has been little to no legislative initiative. Once a policy is adopted, some states make the benefits more generous over time, whereas other states may rescind benefits in bills during subsequent legislative sessions. This variation in the legislative process provides greater insights to state policy leaders on where their state stands relative to others.

Relying on comprehensive research of state income tax statutes and filed legislation since 2015, we determined:

- whether (yes or no) each state had adopted and fully implemented a refundable EITC of at least 10% of the federal EITC for all eligible families with any children under 3 by October 1, 2020, and
- what progress each state had made by June 30, 2020, toward adopting and fully implementing a refundable EITC of at least 10% of the federal EITC.

The figure on the following page shows the progress states have made to date toward adopting and fully implementing a refundable EITC of at least 10% of the federal EITC for all eligible families with any children under age 3. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Progress		Detail	# of States
Yes	10	Yes, and the state EITC has become more generous since it was initially enacted.	12
	9		
	8	Yes, but the generosity of the state EITC has not changed since it was initially enacted.	5
	7	Yes, but the state's refundable EITC has become less generous since it was initially enacted.	1
	6	No, but the state does have a refundable EITC that is below 10% of the federal EITC.	5
Some Progress	5	No, but the state does have a nonrefundable EITC.	6
	4	No, but the state does have a tax break for low-income residents that is similar to an EITC.	3
No	3	No, but there has been considerable legislative initiative to establish a state EITC.	2
	2		
	1	No, and there has been little legislative initiative around establishing a state EITC.	8
Regressive	0	No, and the state does not have an income tax.	9

Have States Adopted and Fully Implemented a Refundable EITC of at Least 10% of the Federal EITC?



Numbers in the map below correspond to each state's level of progress, shown in the figure above. A higher number indicates a greater level of progress.

ME 10


States Vary in the Tax Credits They Offer

Thirty-two states (23 with a refundable EITC, six with a nonrefundable EITC, and three with tax breaks) have some form of an income tax credit or tax break for low-income residents. New York and the District of Columbia also offer state credits to qualifying noncustodial parents.^{11,12}

The Value of Refundable EITCs Varies by State

States offering refundable EITCs range from 3% of the federal EITC in Montana to 85% of the federal EITC in California, the highest in the country.^a



Percent of Federal EITC by EITC Status

Note: Percentage in map reflects percentage of federal EITC.

Source: State income tax statutes, as of October 1, 2020. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

^a California does not calculate its EITC as a simple percentage of the federal credit, as most states do. California's credit is available to working families and individuals with wage or self-employment income of \$30,000 or less. The credit is worth 85% of a household's federal EITC until household income reaches approximately half of the level at which the federal credit is fully phased in; it then begins phasing out at varying rates, depending on family size. The majority of state EITC recipients receive a credit that is 85% of the federal credit.

The Percentage of Eligible Households Not Claiming the Federal EITC Varies by State

States vary in the percentage of eligible households that do not claim the federal EITC. To receive the state EITC, most tax filers must first claim the federal EITC, so this variable is a proxy for the percentage of eligible individuals in states that have a state EITC who do not claim the benefit. Ideally, states should track data on receipt of the state EITC; however, these data are currently insufficient to track the percentage of households claiming a state EITC. The percentage of eligible tax filers who do not claim the federal EITC ranges from 5.7% in Maine (best state) to 24.2% in Hawaii (worst state).

Lack of Federal EITC Take-Up

ME 5.7% AK 15.7% **VT** 11.1% WI NH 6.8% 12.9% **MN** 7.7% **MA** 10.2% **IL** 12.1% **NY** 15.0% WA ID MT ND MI 12.1% 7.2% 10.7% 13.1% 7.1% **OR** 16.2% **IA** 7.5% **PA** 14.9% **NJ** 14.1% **CT** 14.2% **RI** 15.0% NV WY SD IN OH 11.2% 11.1% 13.3% 9.1% 11.3% **CA** 14.8% **CO** 12.9% **MD** 13.2% UT MO WV NE KY VA DE 10.0% 8.0% 11.9% 9.8% 13.3% 9.1% 11.2% **KS** 11.0% NC SC AZ NM AR TN DC 10.0% 8.9% 11.3% 10.6% 10.4% 11.3% 11.6% ОК LA MS AL GA 8.4% 11.5% 12.7% 7.5% 6.1% HI FL TX 24.2% 10.5% 10.5% No Yes

% of eligible tax filers who do NOT claim the federal EITC

States with a "Yes" have a refundable EITC of at least 10%.

Source: State income tax statutes, as of October 1, 2020; 2017-2019 Current Population Survey, Annual Social and Economic Supplement (CPS ASEC) Public Use Microdata Sample (PUMS). For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

STRATEGY

COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS

Comprehensive screening and referral programs are an effective state STRATEGY to impact:

Access to Needed Services

Parents' Ability to Work

Sufficient

Healthy and Equitable Births

Parental Health and Emotional Wellbeing Nurturing and Responsive Child-Parent Relationships

Nurturing and Responsive Child Care in Safe Settings



Comprehensive screening and referral programs:

- increase families' connections to needed services; and
- have mixed impacts on children's health and development.



states have both evidence-based comprehensive screening and referral programs: Family Connects and Healthy Steps.

WHAT ARE COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS?

Comprehensive screening and referral programs assess children and parents for a range of factors that contribute to longterm child and family wellbeing, including physical development, behavioral issues, parental mental and physical health, and social predictors of health.¹ Based on identified needs, families are referred to necessary services and supports to address risk factors early. Two models of comprehensive screening and referral programs, Family Connects and Healthy Steps, have been rigorously studied and have demonstrated effectiveness in impacting prenatal-to-3 goals. In participating sites, each program provides comprehensive screenings to families universally.

A Key Program, Family Connects, Screens Families Postpartum

Family Connects links parents and infants to resources soon after birth. Following delivery, all mothers in participating hospitals are offered the opportunity to participate in the program, and those who choose to participate receive a home visit from a nurse who completes a risk assessment of the family.² Based on the results of the assessment, families are offered services tailored to their specific needs and levels of risk, including referrals to available community resources.

Another Important Program, Healthy Steps, Serves Families in the Pediatric Setting

Healthy Steps incorporates a child development specialist and other services into routine pediatric care at participating sites.³ The primary goal of the program is to improve parenting knowledge and behaviors to promote optimal growth and development over a child's first three years.

WHY ARE COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS IMPORTANT?

Periodic Screenings Help Identify Needs Early

Screening families during the prenatal, postpartum, and early childhood periods can help proactively identify needs. Referrals to community resources can help families access services and supports they need during this sensitive period of development. Comprehensive screening programs identify a wide range of potential risks early, which can promote longterm optimal child development and family wellbeing.⁴

Comprehensive Screenings Foster a Holistic Approach to Health and Wellbeing

Screening for indicators of health beyond behavioral and biological factors encourages providers to take a more holistic approach to the many factors affecting a family's health and wellbeing.⁵

But Screening Families Is Only Effective When Paired with Subsequent Referral and Receipt of Services

Identifying needs through screenings alone is not enough to move the mark on child outcomes. Referrals to resources and initiation of effective services are key aspects in addressing identified needs.

Policies Versus Strategies in This Roadmap

In this Roadmap, we define policies as having clear legislative or regulatory action, based on research gleaned through comprehensive reviews of rigorous evidence. By contrast, the evidence on effective strategies does not provide clear legislative guidance on how to fund or implement the strategy to garner the impacts at a statewide level that were demonstrated in studies. The evidence base will continue to expand to provide more direction to states. Please see <u>pn3policy.org</u> for additional information.

WHAT IMPACT DO COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS HAVE?

Family Connects and Healthy Steps connect families to needed services and can promote optimal child health and development through timely vaccinations and pediatric appointments.

Strong Causal Studies Show That Comprehensive Screening and Referral Programs Impact Two Prenatal-to-3 Policy Goals

Examples of Impact:



Notes. FC=Family Connects; HS=Healthy Steps; results are based on comprehensive reviews of the evidence. The letters in parentheses in the table above correspond to a strong causal study in the comprehensive evidence review of comprehensive screening and referral programs. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at <u>pn3policy.org</u>.



Search the new Prenatal-to-3 Policy Clearinghouse for an ongoing inventory of rigorous evidence reviews at **pn3policy.org/clearinghouse**.

WHAT DO WE STILL NEED TO LEARN ABOUT COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS?

More Research Is Needed to Identify a State Policy Lever to Implement Comprehensive Screening and Referral Programs

Family Connects and Healthy Steps have only been studied as local interventions; therefore, the evidence does not provide clear guidance for states on the most effective way to fund or implement comprehensive screening and referral programs as a statewide policy.

Additional Comprehensive Screening and Referral Models Need to Be Evaluated

To date, rigorous evaluations have only been conducted on two models: Family Connects and Healthy Steps. Some states have designed their own models, and other models are being implemented that need to be rigorously studied.

Little Is Known About the Impacts of Comprehensive Screening and Referral Programs on Fathers

The impacts of comprehensive screening and referral programs are largely focused on mothers, who constitute the vast majority of the study samples. One randomized control trial (RCT) of Family Connects examined father-infant relationship quality, but found no significant association.⁶ Future experimental research should explore the impacts on fathers, as well as mothers.

More Needs to Be Studied About the Impacts of Comprehensive Screening and Referral Programs on People of Color

Studies of Family Connects do not demonstrate effectiveness at reducing racial and ethnic disparities. At 12 months, positive effects were seen for all racial/ethnic subgroups, but White families experienced the largest positive effects on infant emergency care use.⁷ A follow-up study at 24 months found positive impacts only among White families and not among other racial/ethnic subgroups.⁸ A study of Healthy Steps also showed larger positive impacts on parental discipline for White mothers, but skewed attrition rates make it difficult to differentiate impacts by race and ethnicity, because White mothers were less likely to drop out of the study.^{9,10}

Additional Studies Will Be Helpful to Further Understand the Effects of Comprehensive Screening and Referral Programs on Other Policies

Comprehensive screening and referral programs often refer families to services such as evidence-based home visiting programs or Early Intervention services. More research is necessary to understand how comprehensive screening and referral programs interact with other policies and programs that impact the prenatal-to-3 population.

The Return on Investment for Comprehensive Screening and Referral Programs Needs to Be Studied More

Evidence suggests that every dollar invested in Family Connects returns more than \$3 in savings from emergency health care, but additional research needs to be done in other settings.^{11,12} No information about the return on investment of Healthy Steps was included in the experimental studies of the Healthy Steps program included in our evidence review.

Tracking and Evaluating How States Have Responded to COVID-19 Will Be Essential

Three states (California, Minnesota, and North Carolina) with Family Connects sites are offering virtual consultation and continuing referrals.^{13,14,15} An additional two states (Illinois and Texas) with Family Connects sites have issued guidance and resources related to COVID-19.^{16,17} Healthy Steps also has released guidance about providing services via telehealth for Healthy Steps sites.¹⁸ The effects of virtual comprehensive screening programs remain to be seen as services continue to adapt to telehealth methods in response to the COVID-19 pandemic.

HOW DO STATES VARY IN THEIR IMPLEMENTATION OF COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS?

In the absence of a clear state policy lever to assess variation across the states, we describe instead how states compare in their progress toward implementing evidence-based comprehensive screening programs—Family Connects and Healthy Steps.

Nearly Half of States Implement Family Connects or Healthy Steps, or Both

Two states implement Family Connects, 15 states implement Healthy Steps, and eight states implement both Family Connects and Healthy Steps (California, Illinois, Maryland, New York, North Carolina, Oklahoma, Oregon, and Texas). Approximately half of states (26) do not implement either program.

Some States Implement Alternate Comprehensive Screening and Referral Programs

One state, Illinois, implements both Family Connects and Healthy Steps plus an alternative screening program. Three other states implement either Family Connects or Healthy Steps and an alternate comprehensive screening program. Five states implement only alternative screening programs, but do not implement either Family Connects of Healthy Steps. To date, alternate screening programs included in the figure on the next page have not yet been rigorously studied, and future evaluations will be necessary to build the evidence base.

How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?

Without state statute or law to review for progress toward a defined legislative or regulatory action, we leveraged available data assessing state variation in each of the strategies to demonstrate how states are making progress implementing the six strategies relative to one another. Indicators of variation included factors such as the percentage of children or families that states serve through the strategy, states' eligibility criteria for the strategy, whether states invest state funds in the strategy, and whether states meet the federal recommendations for implementing the strategy.

Based on information from Family Connects and Healthy Steps national websites, state statues and legislature on comprehensive screenings, and state department websites' information on available screening programs, we determined whether states are making substantial progress toward having both evidence-based comprehensive screening and referral programs: Family Connects and Healthy Steps.

The figure on the following page shows the progress states have made to date toward implementing comprehensive screening and referral programs. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Have States Made Substantial Progress Toward Implementing Both Evidence-Based Comprehensive Screening and Referral Programs: Family Connects and Healthy Steps?

Progress		Detail	# of States
	10		
Substantial Progress	9	State has a combination of Family Connects, Healthy Steps, and an alternative comprehensive screening program.	1
	8		
	7	State has both Family Connects and Healthy Steps sites.	7
	6	State has Family Connects or Healthy Steps sites (but not both) and an alternative comprehensive screening program.	3
Some Progress	5	State has either Family Connects or Healthy Steps sites.	14
	4		
	3	State has neither Family Connects or Healthy Steps sites, but does have an alternative comprehensive screening program.	5
Little to No Progress	2		
	1	State does not have Family Connects sites, Healthy Steps sites, or an alternative comprehensive screening program.	21
	0		

Numbers in the map below correspond to each state's level of progress, shown in the figure above. A higher number indicates a greater level of progress.

AK

ME 1

					WI 6				VT 1	NH 3
WA 5	ID 1	MT 1	ND 1	MN 5	IL 9	MI 1		NY 7	MA 6	
OR 7	NV 1	WY 3	SD 1	IA 3	IN 1	ОН 5	PA 5	NJ 1	СТ 5	RI 3
CA 7	UT 1	CO 5	NE 1	<u>мо</u> 5	KY 6	WV 1	VA 1	MD 7	DE 1	
	AZ 5	NM 1	КЅ 1	AR 5	TN 3	NC 7	SC 5	DC 5		
			ОК 7	LA 1	MS 5	AL 5	GA 1			
HI 1			TX 7					FL 5		

STRATEGY

CHILD CARE SUBSIDIES

Child care subsidies are an effective state STRATEGY to impact:



Both child care subsidy receipt and greater state subsidy spending per child:

- increase enrollment in formal child care settings; and
- increase maternal employment and education.

state has base reimbursement rates (for infants and toddlers in center-based care and family child care) that meet the federally recommended 75th percentile using a recent market rate survey.

WHAT ARE CHILD CARE SUBISIDIES?

Child care subsidy programs provide financial assistance to help make child care more affordable for low-income families. Subsidy programs are financed largely through federal funds but are administered by states. Federal eligibility requirements for child care subsidies mandate that adults in the household work or participate in education and training activities, that household income is less than 85% of the state median income, and that children are younger than age 13.^{1a} States have considerable flexibility in setting rules on program policies and administration (e.g., eligibility requirements, application procedures, family copayment levels, and provider policies), resulting in substantial state variation in subsidy policy.

^a States may allow children up to age 19 if they have special needs or are in the Child Protection System.

WHY ARE CHILD CARE SUBSIDIES IMPORTANT?

Child Care Subsidies Can Help Parents Work and Get Children Into Child Care

By providing access to child care, subsidy programs may allow more parents to work or complete education and training programs and may support healthy child development when care settings are high quality and stimulate children's early brain development.^{2,3,4}

Child Care Is Not Affordable for Many Families, Especially Those With Lower Incomes

Families with low incomes face barriers in accessing child care that is not only affordable, but also reliable and high quality, especially for the youngest children. The average annual cost of center-based care in 2018 was \$11,896 for infants and \$10,158 for toddlers, compared to \$9,254 for 4-year-olds.⁵ The cost of center-based infant care ranges from 29.3% to 56.3% of median income for single parents and from 7.6% to 17.5% of median income for married couples, depending on the state.

Child Care Subsidies Help More Than 1.3 Million Children Get Access to Child Care

According to the Office of Child Care, more than 1.3 million children and 813,000 families benefited from child care subsidies in Federal Fiscal Year 2018.⁶ Over one quarter (27%) of children whose care was funded by subsidies are children under age 3. Among families served by subsidies in 2018, 41% had family incomes below the federal poverty level.⁷

Increased Parent Employment and Access to High-Quality Child Care Should Result in Improved Long-Term Child Outcomes

Child care subsidies may impact children's social-emotional and cognitive development through two main pathways: (1) indirectly, through higher family income from increased employment, which may reduce family stress, boost access to needed resources, and limit adverse childhood experiences; and (2) directly, through access to high-quality child care that may provide enriching and safe environments for children that support positive early development.

But Child Care Subsidies May Not Be Effective at Improving Child Outcomes if Children Are Not Enrolled in High-Quality Child Care

Child care subsidies allow more parents to work and increase family income, but without enough high-quality child care slots that serve recipients of subsidies, families may be unable to access high-quality care and children's outcomes may not improve. A base reimbursement rate at the 75th percentile provides a subsidy payment—based on the child's age and type of care—that is equivalent to the cost of care for three-quarters of providers in the state. The federal government considers state base reimbursement rates at the 75th percentile or above (based on a market rate survey no older than 2 years) as providing low-income families with equal access to the child care market. In reality, however, this base reimbursement rate, or the value of the subsidy, does not necessarily ensure access to high-quality care.

Low-Income Children Are Less Likely to Enroll in High-Quality Care, Even With Access to Subsidies

Children in low-income families are less likely to enroll in formal center-based child care and in high-quality care relative to their higher-income counterparts.⁸ Subsidies can facilitate greater access to formal settings, but subsidies are not consistently associated with improvements in the quality of care that low-income children receive, likely in part because reimbursement rates are too low.^{9,10}

Hispanic Families Are Less Likely to Use Child Care Subsidies, Even Though They Qualify

Hispanic children account for 35% of children eligible to receive subsidies, but just 20% of the population served who use subsidies.¹¹ Documentation requirements may be one factor limiting participation. Many states ask for applicants' social security numbers but do not make it clear that providing them is optional.¹²

WHAT IMPACT DO CHILD CARE SUBSIDIES HAVE?

Research on subsidies has focused almost entirely on subsidy receipt and higher state subsidy expenditures, which are linked to improvements in access to needed services (e.g., use of more formal care arrangements) and the ability of parents to work (e.g., higher maternal employment). However, the current evidence base does not provide clear guidance to states in setting an optimal subsidy level to ensure subsidies increase low-income families' access to high-quality child care.

Strong Causal Studies Show That Child Care Subsidies Impact Three Prenatal-to-3 Policy Goals

Examples of Impact:



Note. Results are based on comprehensive reviews of the evidence. The letters in parentheses in the table above correspond to a strong causal study in the comprehensive evidence review of child care subsidies. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at pn3policy.org.

WHAT DO WE STILL NEED TO LEARN ABOUT CHILD CARE SUBSIDIES?

Although Child Care Subsidies Improve Prenatal-to-3 Outcomes, the Most Effective Way for States to Implement a Subsidy System Remains Unclear

Currently, state subsidy levels (base reimbursement rates) vary considerably, and evidence does not provide clear guidance to states in setting an optimal subsidy level to ensure subsidies increase low-income families' access to high-quality child care. Despite federal guidance to set base reimbursement rates at the 75th percentile of the market (based on a market rate survey or alternative cost assessment tool that is no older than 2 years), states vary considerably in the level at which they set subsidy rates and the methods used to set these rates. Additionally, the federal benchmarks have not been linked to higher child care quality, based on existing research.

More Research Is Necessary to Understand How State Variation in Child Care Subsidies Affects Child Care Quality

Future research should explore how factors such as base reimbursement rate levels, income eligibility requirements, payment mechanisms (vouchers, contracts, or cash), copayments, and fee policies can affect the use of child care subsidies and subsequent impacts on child care quality. Research on the optimal subsidy level is particularly critical to provide guidance to states on the appropriate rate to improve families' access to high-quality care and subsequently, improve child outcomes.

Additional Studies Will Be Helpful to Further Understand the Effects of Child Care Subsidies on Other Policies

Other policies, such as the state earned income tax credit (EITC) and paid family leave, incentivize work and increase parent participation in the workforce; therefore, as states implement paid family leave or a state EITC, access to highquality child care is even more critical for parents and their infants and toddlers. More research also is necessary to identify how other policies that impact the prenatal-to-3 population interact with the use of child care subsidies. For example, some states require child support cooperation (stipulating that mothers comply with paternity establishment and allowing the state to set child support orders) to be able to receive child care subsidies. States may also count child support payments as income, which could put some single parents over the income threshold to receive a subsidy, despite the fact that the parents may still need financial assistance.

More Needs to Be Studied About the Impacts of Subsidies on People of Color

Insufficient evidence exists to establish whether child care subsidies contribute to closing race/ethnicity achievement gaps over time; no studies identified for our review directly assess gaps by race or ethnicity. Nevertheless, equal access to child care subsidies remains a concern. As discussed above, research indicates that Hispanic families are less likely to use child care subsidies, despite qualifying for benefits. However, research is lacking that directly addresses barriers that Black or indigenous families may face in accessing child care subsidies.

The Return on Investment for Child Care Subsidies Needs to Be Studied More

No research exists that directly assesses the return on investment or cost savings that result from child care subsidy receipt or other child care subsidy policies. The impacts of child care subsidy receipt and per child state spending on maternal employment, weekly hours worked, and maternal education suggest positive economic returns.

Tracking and Evaluating How States Have Responded to COVID-19 Will Be Essential

In response to the COVID-19 pandemic, seven states (Illinois, New Jersey, Oklahoma, Oregon, Pennsylvania, Rhode Island, and Virginia) are waiving copayments, 11 states are covering parents' copayments, three states (Arkansas, Vermont, and Virginia) are covering private pay tuition, 14 states are continuing to provide funding based on enrollment and not attendance, 10 states are relaxing policies around child absences, six states (Arkansas, Illinois, New Jersey, New Mexico, North Carolina, and West Virginia) are increasing rates for emergency/open child care providers, and 10 states are providing grant programs for impacted providers.¹³ As of July 2020, 32 states opened child care programs, and 19 states were reopening according to state guidelines regarding COVID-19.¹⁴ The effects of the pressing need for child care during the COVID-19 pandemic on subsidies and related policies remain to be seen as facilities begin to open up.

HOW DO STATES VARY IN THEIR IMPLEMENTATION OF CHILD CARE SUBSIDIES?

In the absence of a clear state policy lever to assess variation across the states, we describe instead whether states meet certain federal recommendations, discussed below. The federal government considers state base reimbursement rates at the 75th percentile or above (covering three-fourths of slots in the state based on a market rate survey no older than 2 years) as providing low-income families with equal access to the child care market, but reimbursement rates vary widely between states, and the federal recommendations still may be inadequate to provide parents with access to high-quality child care.

Only One State Sets Its Base Reimbursement Rates at the 75th Percentile Using a Recent Market Rate Survey

Out of all 51 states, only one state (Maine) sets its base reimbursement rates for infants and toddlers in center-based and family child care at the 75th percentile or above using a recent market rate survey. Market rate surveys from earlier than 2018 (or 2017-2018) are not considered recent. Using a more recent market rate survey would likely require that reimbursement rates be even higher, given that the cost of child care continues to rise. Nine states have shown progress by reimbursing at the 75th percentile, but these states use market rate surveys that are older than 2 years. The remainder of states (41 states) have significant room for progress.

How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?

Without state statute or law to review for progress toward a defined legislative or regulatory action, we leveraged available data assessing state variation in each of the strategies to demonstrate how states are making progress implementing the six strategies relative to one another. Indicators of variation included factors such as the percentage of children or families that states serve through the strategy, states' eligibility criteria for the strategy, whether states invest state funds in the strategy, and whether states meet the federal recommendations for implementing the strategy.

Based on information from state children and families' department websites and state market rate surveys, we determined whether a state's base reimbursement rates (for infants and toddlers in center-based care and family child care) met the federally recommended 75th percentile and if the state used a recent market rate survey to set rates.

The figure on the following page shows the progress states have made to date toward implementing child care subsidies. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Progress		Detail	# of States
Substantial	10		
	9		
Progress	8		
	7	State base reimbursement rates meet the federally recommended 75th percentile, and the state relies on a recent market rate survey to set rates.	1
	6		
Some Progress	5	State base reimbursement rates meet the federally recommended 75th percentile, but the state relies on an older (>2 years) market rate survey to set rates.	9
	4		
	3	State base reimbursement rates do not meet the federally recommended 75th percentile, but the state relies on a recent market rate survey to set rates.	20
Little to No Progress	2		
	1	State base reimbursement rates do not meet the federally recommended 75th percentile, and the state relies on an older (>2 years) market rate survey to set rates.	21
	0		

Have States Made Substantial Progress Toward Implementing Child Care Subsidies?



Numbers in the map below correspond to each state's level of progress, shown in the figure above. A higher number indicates a greater level of progress.

ME 7

					1				1	3	
WA 3	ID 3	MT 5	ND 5	MN 1	IL 3	MI 1		NY 3	MA 3		
OR 3	NV 3	WY 1	SD 5	IA 1	IN 1	OH 3	PA 1	NJ 1	CT 3	RI 1	
CA 5	UT 1	CO 3	NE 3	MO 3	КҮ 1	WV 5	VA 3	MD 3	DE 3		
	AZ 3	NM 3	KS 1	AR 5	TN 3	NC 1	SC 5	DC 3	Note	. Base rein include fo	nbursem our rates:
			ОК 1	LA 1	MS 5	AL 1	GA 1		care 2) fai todd	in 1) center mily child c ler care in 1	r-based care; and 3) cente
HI 1			TX 1					FL 5	and	4) Iamily Ci	niia Care

nent : infant and d er-based е.

The following table shows the variation in whether states' current base reimbursement rates for infants and toddlers in center-based care and in family child care are at or above the 75th percentile of the market rate. In addition, the table shows the year of the market rate survey states used to establish their current base reimbursement rates, and (**) whether a more recent market rate survey is available. A market rate survey conducted in 2018 or 2019 is considered recent.

Are States' Current Base Reimbursement Rates at or Above the 75th Percentile of the Market Rate?

State	Infants in Center-Based Care	Toddlers in Center-Based Care	Infants in Family Child Care	Toddlers in Family Child Care	Year of Market Rate Survey Used to Establish Base Rates
Alabama	No	No	Yes	Yes	2017
Alaska	No	No	No	No	2017
Arizona	No	No	No	No	2018
Arkansas	Yes	Yes	Yes	Yes	2015**
California	Yes	Yes	Yes	Yes	2016**
Colorado	No	No	No	No	2017-18
Connecticut	No	No	Yes	Yes	2018
Delaware	No	No	No	No	2018
District of Columbia	No	No	No	No	2018
Florida	Yes	Yes	Yes	Yes	2017
Georgia	No	No	No	No	2016-17
Hawaii	Yes	Yes	No	No	2016**
Idaho	No	No	No	No	2018
Illinois	No	No	No	No	2018
Indiana	No	No	No	No	2017**
Iowa	No	No	No	No	2014**
Kansas	Yes	No	Yes	No	2017
Kentucky	No	No	No	No	2017
Louisiana	No	No	No	No	2017
Maine	Yes	Yes	Yes	Yes	2018
Maryland	No	No	No	No	2019
Massachusetts	No	No	No	No	2018
Michigan	No	No	No	No	2017
Minnesota	No	No	No	No	2012**

(continued)

(continued)

State	Infants in Center-Based Care	Toddlers in Center-Based Care	Infants in Family Child Care	Toddlers in Family Child Care	Year of Market Rate Survey Used to Establish Base Rates
Mississippi	Yes	Yes	Yes	Yes	2016
Missouri	No	No	No	No	2018
Montana	Yes	Yes	Yes	Yes	2016
Nebraska	No	No	No	No	2019
Nevada	No	No	No	No	2018
New Hampshire	No	No	No	No	2018
New Jersey	No	No	No	No	2017
New Mexico	No	No	No	No	2018
New York	No	No	No	No	2018
North Carolina	No	No	No	No	2015**
North Dakota	Yes	Yes	Yes	Yes	2017
Ohio	No	No	No	No	2018
Oklahoma	No	No	No	No	2017
Oregon	No	No	Yes	Yes	2018
Pennsylvania	No	No	No	No	2016**
Rhode Island	No	No	Yes	Yes	2015**
South Carolina	Yes	Yes	Yes	Yes	2017
South Dakota	Yes	Yes	Yes	Yes	2017**
Tennessee	No	No	No	No	2017-18
Texas	No	No	No	No	2017**
Utah	Yes	No	Yes	No	2017
Vermont	No	No	No	No	2017
Virginia	No	No	No	No	2018
Washington	No	No	No	No	2018
West Virginia	Yes	Yes	Yes	Yes	2015**
Wisconsin	No	No	No	No	2017**
Wyoming	No	No	No	No	2017

** Denotes state has collected a more recent market rate survey that could be used to set reimbursement rates.

Source: Base rates and market rate survey years from state children and families department websites and state market rate surveys, as of July 1, 2020. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Most States Set Income Eligibility Limits Below the Federal Maximum

States set subsidy eligibility at a specific dollar amount of family income, relative to the family size and/or structure. Federal eligibility requirements restrict states from setting income eligibility for subsidies above 85% of the state median income, regardless of family size or structure. Many states set income limits below this level, meaning fewer families are eligible for subsidies than would be allowed by federal law. Forty-five states set income limits below 85% of the state median income. Only five states (and some local workforce development boards in Texas) set income limits at 85% of the state median income, including California, Maine, Mississippi, Oklahoma, and Vermont. In Texas, local workforce development boards set their income limits within state guidelines—income limits range from 63% to 85%. States with eligibility set at 85% of the state median income do not have the ability to expand eligibility to any additional families based on income, because they are already at the maximum level stipulated by federal legislation.

Income Eligibility as a Percentage of the Federal Poverty Level Varies by State

The income eligibility limits set by states also can be understood as a percentage of the federal poverty level (FPL), which allows for comparisons across states. States may have higher and lower income-eligibility thresholds due to the fact that the median income varies by state. For example, although both California and Mississippi set eligibility at 85% of the state median income, California's income eligibility limit is 253% of the FPL, but Mississippi's limit is only 205% of the FPL, because Mississippi's median income is substantially lower than that of California. For a family of three, the lowest income eligibility as a percentage of the FPL is 125% in Michigan, whereas the highest is 300% in Vermont.



Child Care Subsidy Income Eligibility as a Percentage of the Federal Poverty Level

States with a "Yes" have made substantial progress toward implementing child care subsidies.

Payment Mechanisms Vary From State to State

Providers can be paid through contracts, vouchers, or cash. All states except Hawaii provide subsidies in the form of vouchers that are provided to families who then pay providers. Ten states also provide subsidies in the form of contracts that are paid directly to providers. Three states (Hawaii, Michigan, and Montana) provide subsidies in the form of cash. Hawaii only provides subsidies as cash.¹⁵

States Vary in How Well Their Reimbursement Rates Compare to Their State's Market for Child Care

For center-based infant care, the base reimbursement rate, or subsidy value, ranges from a low of \$418 in Oklahoma to a high of \$1,777 in Virginia. States set the subsidy amount based on the age of the child and type of care a family uses, such as center-based care or family child care. Only 13 states have a base reimbursement rate for infants in center-based care that meets the federally recommended 75th percentile of the market rate: Arkansas, California, Florida, Hawaii, Kansas, Maine, Mississippi, Montana, North Dakota, South Carolina, South Dakota, Utah, and West Virginia; though only Maine uses a recent market rate survey. In the other 12 states, the base reimbursement rate may be higher if the state used a recent market rate survey to determine its rates, or the states would no longer meet the 75th percentile threshold.

The table on the following page illustrates how each state varies in its base reimbursement rates for infants in centerbased care. The table also shows what the base reimbursement for infants in center-based care would need to be if the state set the rate at the federally recommended 75th percentile of the market rate, as well as the difference between this amount and the current base reimbursement rate. A negative difference indicates that the state has set its base reimbursement rate below the 75th percentile of the market rate, which means subsidy recipient families have access to fewer child care providers. The 75th percentile dollar amounts are calculated based on the rates from the year of the market rate survey that each state uses, many of which are outdated. In states that use an older market rate survey, the base reimbursement rate at the 75th percentile would likely be even higher, but this information is not available for most states. For information on toddlers in center-based care and infants and toddlers in family child care, visit <u>pn3policy.org</u>.



Base Reimbursement Rates for Infants in Center-Based Care

Base Reimbursement Rate for Infants in Center-Based Care	Infants in Center-Based Care IF set at 75th Percentile of the Market Rate Survey the State Used	Reimbursement Rate if set at the 75 th Percentile and the Current Base Reimbursement Rate for Infants in Center-Based Care
\$650	\$836	-\$186
\$980	\$1,006	-\$26
\$853	\$1,050	-\$197
\$597	\$594	\$3
\$1,594	\$1,594	\$0
\$1,166	\$1,641	-\$475
\$1,322	\$1,534	-\$212
\$816	\$1,255	-\$439
\$1,369	Not Reported	Not Reported
\$719	\$693	\$26
\$65 0	\$1,025	-\$375
\$1,490	\$1,490	\$0
\$79O	\$840	-\$50
\$1,064	\$1,402	-\$338
\$1,070	Not Reported	Not Reported
\$711	\$858	-\$147
\$774	\$730	\$44
\$586	\$743	-\$157
\$523	\$654	-\$131
\$1,313	\$1,313	\$0
\$958	\$1,191	-\$233
\$1,550	\$1,874	-\$324
\$809	\$1,130	-\$321
\$1,161	\$1,465	-\$304
\$48O	\$480	\$0
\$789	\$1,361	-\$572
\$837	\$837	\$0
\$941	\$1,021	-\$80
	Base Reimbursement Rate for (\$650)\$650\$980\$980\$853\$853\$597\$1,594\$1,66\$1,322\$816\$1,369\$1,369\$1,369\$1,490\$1,490\$1,064\$1,070\$	Base Reinbursement Rate for Infants in Center-Based Care at 75th Percentile of the Market Rate Survey the State Used \$650 \$836 \$980 \$1,006 \$853 \$1,050 \$853 \$1,050 \$597 \$594 \$1,594 \$1,641 \$1,166 \$1,641 \$1,322 \$1,534 \$1,322 \$1,534 \$1,369 Not Reported \$1,369 \$1,025 \$1,369 \$1,025 \$1,369 \$1,025 \$1,369 \$1,025 \$1,04 \$1,025 \$1,050 \$1,025 \$1,050 \$1,025 \$1,050 \$1,025 \$1,050 \$1,025 \$1,050 \$1,021 \$1,070 Not Reported \$1,070 Not Reported \$1,070 \$1,021 \$1,070 \$1,021 \$1,070 \$1,021 \$1,070 \$1,021 \$1,070 \$1,021 \$1,070 \$1,021 <

(continued)

(continued)

State	Base Reimbursement Rate for Infants in Center-Based Care	Base Reimbursement Rate for Infants in Center-Based Care IF set at 75th Percentile of the Market Rate Survey the State Used	The Difference Between the Base Reimbursement Rate if set at the 75 th Percentile and the Current Base Reimbursement Rate for Infants in Center-Based Care
Nevada	\$879	\$1,004	-\$125
New Hampshire	\$1,083	\$1,181	-\$98
New Jersey	\$995	\$1,326	-\$331
New Mexico	\$721	\$774	-\$53
New York	\$1,759	\$1,759*	Not Reported
North Carolina	\$536	\$1,170	-\$634
North Dakota	\$840	\$840	\$0
Ohio	\$910	\$1,235	-\$325
Oklahoma	\$418	\$669	-\$251
Oregon	\$1,415	\$1,455	-\$40
Pennsylvania	\$893	Not Reported	Not Reported
Rhode Island	\$860	\$1,075	-\$215
South Carolina	\$802	\$802	\$0
South Dakota	\$762	\$762	\$0
Tennessee	\$771	\$875	-\$104
Texas	\$702	\$787	-\$85
Utah	\$900	\$900	\$0
Vermont	\$867	\$1,127	-\$260
Virginia	\$1,777	\$1,777*	Not Reported
Washington	\$1501	\$2,008	-\$507
West Virginia	\$669	\$669	\$0
Wisconsin	\$1,201	\$1,257*	Not Reported
Wyoming	\$628	\$732	-\$104

Note: All rates are monthly and rounded to the nearest dollar. States vary in how they define the ages of infants and toddlers. Current rates do not include temporary enhanced rates set due to COVID-19.

* New York does not report/calculate rates at the 75th percentile; rates listed are at the 69th percentile. Virginia does not report/calculate rates at the 75th percentile; rate listed is at the 70th percentile. Wisconsin does not report rates at the 75th percentile for Milwaukee County (Zone D); statewide 75th percentile rate included in table.

Sources: State children and families department websites and state market rate surveys, as of July 1, 2020. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Copayment Policies Differ in Each State

The base reimbursement rate does not represent the full value of the child care subsidy for the parent, but rather the value of the subsidy for the child care provider. Families may be required to participate in cost-sharing for child care received through subsidies.¹⁶ The child care subsidy reimbursement rate represents the amount a provider receives to cover the cost of caring for a child, including a payment from the state government and the family copayment.¹⁷ In some states, copayment rates may be referred to as fees, as is the case in Maine. States can set copayment rates at a dollar value or as percentage of the total cost of care based on various factors, including family size, family structure, and family income. Based on the 2019 FPL, for a family of three at 150% of the FPL, copayment amounts range from 0% of family income in South Dakota to 22% of family income in Hawaii. The monthly copayment amount also ranges from \$0 in South Dakota to \$592 in Hawaii.

Some States Allow Providers to Charge Parents the Difference Between the Reimbursement Rate and the Rate a Provider Charges

A total of 39 states allow providers to charge parents the difference between the reimbursement rate (subsidy amount) and the rate the provider charges to families who do not have a subsidy. In some states, this difference is referred to as a fee. Families must pay these fees in addition to copayment amounts, discussed previously.

The following map shows the monthly copayment families have to pay when they use subsidies, as a percentage of family income. If a state permits providers to charge the difference between the reimbursement rate and provider rate, often called a fee, in addition to the copayment, this is indicated with lighter green color in the map.



Monthly Copayment Rate as a Percentage of Income for a Family of 3 at 150% of the Federal Poverty Level

of February 2019. For additional information, please refer to the Methods and Sources section of

State does not allow providers to charge the difference between the reimbursement rate and the provider rate

State allows providers to charge the difference between the reimbursement rate and the provider rate

The Total Cost of Child Care Is Distributed Differently Across States

The figure on the following page depicts the distribution in the total cost of child care for subsidy recipient families. The blue portion represents the amount (state contribution) that the state provides as a subsidy. The navy portion is the family's required copayment contribution. If a state allows providers to collect the difference between the total cost of care and the subsidy amount (a fee), then the teal block is the additional amount the parents would be required to pay. The grey block is the portion of the market rate for which the provider is not reimbursed. The following examples from two states illustrate how to use the chart to understand the total cost of care in each state. These data reflect values for a family of three, with one child in care, and an income at 150% of the federal poverty level (FPL).

Nevada

- In Nevada, the total monthly cost (at the 75th percentile of the market rate) for center-based infant care in 2019 was \$1,144, and the child care subsidy payment (base reimbursement rate) would have covered \$844 of this cost.
- For a family of three with an income at 150% of FPL (\$31,995 in 2019), the state would have paid \$692 of the \$844 base reimbursement rate, and the family would have been expected to pay a copayment of \$152 each month (\$692 + \$152 = \$844).
- In Nevada, child care providers are permitted to charge an additional fee to families to cover the difference between the subsidy value (base reimbursement rate) and the rate the provider charges for care; this amount would equal \$300 (\$1,144 - \$844).
- Each month, the provider would receive \$1,144, of which the state would have paid \$692, and the total cost to the family would have been \$452 (\$152 copayment + \$300 fee).
- If the family cannot pay the monthly charge of \$452, then the family would need to find a child care provider who does not charge more than \$844 per month. The family would still be responsible for paying the \$152 copayment, regardless of the cost of the child care.
- In states where providers can charge a fee to make up the difference between the subsidy value (base reimbursement rate) and the private pay rate, child care may be too costly for many subsidy-eligible families. Without higher subsidy payments or caps on the total cost of care, child care is likely to remain unaffordable.

Massachusetts

- In Massachusetts, the total monthly cost (at the 75th percentile of the market rate) for center-based infant care in 2019 was \$1,940, and the child care subsidy payment (base reimbursement rate) would have covered \$1,472 of this cost.
- For a family of three with an income at 150% of FPL (\$31,995 in 2019), the state would have paid \$1,147 of the \$1,472, and the family would have been expected to pay a copayment of \$325 monthly (\$1,147 + \$325 = \$1,472).
- In Massachusetts, child care providers are not permitted to charge an additional fee to families to cover the difference between the subsidy value (base reimbursement rate) and the rate the provider charges for care.
- Each month, the provider would receive \$1,472, of which the state paid \$1,147, and the total cost to the family would have been \$325.
- The provider would not be reimbursed for the difference between the total monthly cost of \$1,940 and the \$1,472 the provider received, which is \$468 monthly, and therefore these providers may be unlikely to accept families who use child care subsidies.
- If the family is unable to pay the \$325 copayment, the family will not be able to afford care, even with subsidy receipt.
- In states where providers are not permitted to charge the difference between the subsidy value (base reimbursement rate) and the private pay rate, many providers choose not to provide services to subsidy recipients in their child care centers, to avoid accepting a lower payment for their services.
- If providers choose not to serve subsidy recipients, child care options for these families will be much more limited. Without higher subsidy payments or greater cost-sharing with families, providers may be unable to offer care to subsidy-recipient families.

Distribution of the Total Cost of Child Care by State



Notes: South Dakota has a copayment of \$0. Total cost of care is based on the 75th percentile market rate in each state. Data reflect values for a family of three, with one child in care, and an income at 150% of the FPL.

Sources: National Women's Law Center, as of February 2019. For additional information, please refer to the Methods and Sources section of pn3policy.org.

States Differ in Whether They Require Licensed Providers to Participate in the QRIS

States typically use quality rating improvement systems (QRIS) as a means to systematically assess key standards of child care environments and communicate the quality of care in settings to a variety of audiences. In 10 states, all licensed center-based and family child care providers are required to participate in the QRIS (Colorado, Illinois, New Hampshire, New Mexico, North Carolina, Oklahoma, Oregon, Pennsylvania, Tennessee, and Vermont). States also can require providers to participate in their QRIS specifically to receive subsidies.¹⁸ Twelve states do so—Arkansas, Maine, Maryland, Massachusetts, Nevada, Rhode Island, South Carolina, Utah, Washington, and Wisconsin.¹⁹ Twenty other states have a QRIS system, but all participation in the system is voluntary. An additional four states do not have a QRIS (Hawaii, Mississippi, Missouri, and Wyoming), and five states do not report QRIS-related data (Alabama, Connecticut, Kansas, South Dakota, and West Virginia). States that require all licensed providers to participate in their QRIS or that require QRIS participation to serve subsidy recipients may or may not also tie QRIS level of quality to subsidy levels.

Some States Reimburse at Higher Levels for Higher Quality

Several states reimburse at higher levels for providers meeting higher quality standards (e.g., higher rating levels in the state's QRIS). Thirty-three states currently increase their subsidy reimbursement rate for providers who meet higher quality standards as designated in the state QRIS.



Status of State QRIS Participation and Reimbursement Based on Higher Quality Standards

A check mark denotes that the state reimburses at a higher rate for higher QRIS level of quality.

STRATEGY

GROUP PRENATAL CARE

Group prenatal care is an effective state STRATEGY to impact:



Participation in group prenatal care:

- increases the likelihood that mothers receive adequate prenatal care;
- improves mothers' physical and emotional health; and
- has mixed impacts on healthy and equitable births and optimal child health and development.

10

states support the implementation of group prenatal care financially through enhanced reimbursements for group prenatal care providers.

WHAT IS GROUP PRENATAL CARE?

Group prenatal care (GPNC) is a model of prenatal care facilitated by a trained healthcare provider, but delivered in a group setting, integrating health assessments, education and skills building, and peer social support.¹ GPNC provides pregnant women (typically with low-risk pregnancies not requiring individual monitoring) with approximately 20 hours of prenatal care over the course of their pregnancies, compared to approximately 2 hours in traditional individual care.

WHY IS GROUP PRENATAL CARE IMPORTANT?

Early and Regular Prenatal Care Improves the Likelihood of a Healthy Pregnancy

Pregnant women who receive frequent care early in pregnancy experience positive perinatal outcomes, likely through education, risk screening, and physical assessments included in prenatal care visits.^{2,3}

Group Prenatal Care Adds an Additional Element of Social Support to Traditional Prenatal Care

Group prenatal care augments prenatal care in ways that can positively impact pregnant women and their families by integrating family members and peer support into prenatal care and education, which can be a protective factor for women's psychosocial health.⁴

Women Who Participate in Group Prenatal Care Receive More Hours of Care

GPNC provides participating women with significantly more prenatal care (20 hours) than individual care (2 hours) over the course of their pregnancies, which in turn should lead to greater quality of care, subsequent improvements in mothers' mental and physical health during the perinatal period, and better birth outcomes.

Because Adverse Birth Outcomes Disproportionately Affect Women of Color, They May Benefit Most From Group Prenatal Care

Poor birth outcomes are not distributed proportionally across racial and ethnic groups. Compared to infants from other racial and ethnic groups, Black infants had a 50% higher average rate of preterm birth from 2016-2018, and disparities in rates of preterm birth, low birthweight, and infant mortality are increasing.^{5,6}

Women May Be More Likely to Attend Group Prenatal Care Visits Compared to Traditional Prenatal Care

GPNC emerged as an alternative form of care, in part as a response to challenges with accessing individual prenatal care.⁷ Women who choose group prenatal care over individual care may be more likely to attend more of their scheduled visits if GPNC meets their needs in ways that individual care does not.

WHAT IMPACT DOES GROUP PRENATAL CARE HAVE?

Participation in group prenatal care improves the likelihood that mothers receive adequate prenatal care and improves mothers' physical and emotional health. Mothers participating in group prenatal care are less likely to gain excessive weight during pregnancy and more likely to experience better psychosocial outcomes. Impacts on healthy and equitable birth outcomes and optimal child health and development are less conclusive.

Group Prenatal Care May Positively Impact Birth Outcomes and Child Development, but More Research Is Needed

Positive impacts on preterm birth and low birthweight emerge in experimental and quasi-experimental studies, but null impacts also emerge in similarly designed studies. No consistent pattern in the demographic or risk composition of the study samples accounts for the differences in findings. Study findings on breastfeeding initiation also were mixed—showing both positive and null results.

CenteringPregnancy Is the Most Prominent Model of Group Prenatal Care

CenteringPregnancy is the predominant model of GPNC. It is the most widely studied model and the model on which other forms of GPNC are often based.⁸ CenteringPregnancy is currently being implemented in 435 sites across 45 states.⁹ Other (less studied) models of GPNC include March of Dimes' Supportive Pregnancy Care, Expect With Me, Pregnancy & Parenting Partners, and Honey Child.

Strong Causal Studies Show That Group Prenatal Care Impacts Four Prenatal-to-3 Policy Goals

Examples of Impact:



Note. Results are based on comprehensive reviews of the evidence. Letters in parentheses in the table above correspond to a strong causal study in the comprehensive evidence review of group prenatal care. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at <u>pn3policy.org</u>.

WHAT DO WE STILL NEED TO LEARN ABOUT GROUP PRENATAL CARE?

More Research Is Needed to Identify a State Policy Lever to Implement Group Prenatal Care

To date, the group prenatal care model has not been evaluated as a statewide intervention, so it is not clear from the current evidence base the optimal way for states to fund or implement group prenatal care.

Additional Group Prenatal Care Models Need to Be Rigorously Evaluated

Currently, the CenteringPregnancy model is the only program model that is being implemented widely and that has undergone rigorous evaluation. As states implement alternative models, rigorous evaluations should be conducted.

Little Is Known About the Impacts of Group Prenatal Care on Fathers or on Children Beyond Infancy

Fathers play an important role in supporting mothers during the perinatal period. Their health and wellbeing and their ability to provide social support can affect the health and wellbeing of the entire family unit, yet outcomes measured in group prenatal care studies focus almost entirely on the health of mothers and their infants. More evidence on children beyond infancy also would be helpful, especially because the evidence for birth outcomes and breastfeeding is mixed.

More Needs to Be Studied About the Impacts of Group Prenatal Care on People of Color

Several studies show that group prenatal care is beneficial for Black mothers, which is encouraging given that adverse birth outcomes disproportionately impact Black women; however, the evidence that participation in group prenatal care reduces or eliminates racial disparities remains inconclusive. In addition, currently, little research exists demonstrating that group prenatal care reduces disparities among Hispanic women either. Future research must focus on examining the differential impacts of group prenatal care by race and ethnicity.

Additional Studies Will Be Helpful to Further Understand the Effects of Group Prenatal Care on Other Policies

More research is necessary to understand how group prenatal care interacts with other policies that impact the prenatal-to-3 population, such as Medicaid expansion, because states allow group prenatal care sessions to be covered by Medicaid. Some states also provide enhanced reimbursement for group prenatal care through Medicaid. Many participants in group prenatal care also may be referred to home visiting programs; therefore, exploring how these programs impact one another can be helpful for states.

Tracking and Evaluating How States Have Responded to COVID-19 Will Be Essential

In response to the COVID-19 pandemic and social distancing measures, many group prenatal care programs have been halted. Centering Health Institute (CHI) has issued guidance for its partner sites regarding how to provide services virtually and has delayed licensing fees. In addition, as of July 2020, CHI has awarded 48 grants to support virtual group care and has been adapting its curriculum to better suit the medium of telehealth.¹⁰ The University of Michigan also intends to create online group care for pregnant women. The effects of virtual group prenatal care and the adaptation to telehealth remain to be determined.¹¹

HOW DO STATES VARY IN THEIR IMPLEMENTATION OF GROUP PRENATAL CARE?

In the absence of a clear state policy lever to assess variation across the states, we describe instead how states compare in their progress toward implementing group models of prenatal care.

Ten States Provide Enhanced Reimbursements to Group Prenatal Care Providers

Ten states currently offer enhanced reimbursement to incentivize group prenatal care—California, Georgia, Louisiana, Michigan, Montana, New Jersey, New York, South Carolina, Texas, and Utah.¹² Eight of these 10 states allow Medicaid to reimburse providers for group prenatal care at a higher rate than traditional care, either through one or more managed care organizations (MCOs) operating in the state or for all Medicaid plans. Two other states (New York and Georgia) use grant dollars to fund enhanced reimbursement. Thirteen other states reimburse providers in other ways, and an additional 12 states either encourage the use of group prenatal care or recognize it as an effective strategy. In contrast, 16 states do not explicitly promote group prenatal care in any way.

States Can Fund Group Prenatal Care Through Alternative Payment Methods

Alternative Payment Methods (APMs) reimburse providers using a value-based payment method instead of a traditional fee-for-service. By reimbursing for value rather than for volume, providers are encouraged to use comprehensive maternity care to treat patients, which may include the use of group prenatal care. Fifteen states reimburse using alternative payment methods.

Legislation and Rulemaking Authority Can Be Used to Promote Group Prenatal Care

One state, Illinois, encourages the support of group prenatal care through legislation and rulemaking by promoting evidence-based and enhanced prenatal care services, which can include group prenatal care.

Some States Endorse Group Prenatal Care, but Do Not Support It Directly

Eleven states do not explicitly support group prenatal through enhanced reimbursements or official promotion, but these states endorse group prenatal care as a best practice through agency resources, such as brochures and taskforce recommendations.

How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?

Without state statute or law to review for progress toward a defined legislative or regulatory action, we leveraged available data assessing state variation in each of the strategies to demonstrate how states are making progress implementing the six strategies relative to one another. Indicators of variation included factors such as the percentage of children or families that states serve through the strategy, states' eligibility criteria for the strategy, whether states invest state funds in the strategy, and whether states meet the federal recommendations for implementing the strategy.

Based on information from state health department websites and proposed and passed state legislation, we determined whether a state supported the implementation of group prenatal care financially through enhanced reimbursements for group prenatal care providers.

The figure on the following page shows the progress states have made to date toward implementing group prenatal care. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Progress		Detail	# of States
Substantial	10		
	9	State has either one or more MCO or a state billing model that reimburses providers for group prenatal care at a higher rate than traditional individual prenatal care.	8
Progress	8		
	7	State uses grant or discretionary funding to reimburse providers for group prenatal care at a higher rate than traditional prenatal care.	2
	6	State has provided limited grant funding for group prenatal care within the last 3 years.	4
Some Progress	5	State has either one or more MCO or a state model that reimburses health providers through an alternative payment method that supports enhanced maternity care, but doesn't explicitly mention group prenatal care.	9
	4	State, through legislation or agency rulemaking authority, encourages the implementation of group prenatal care.	1
	3	State recognizes group prenatal care as an effective strategy.	11
Little to No Progress	2		
	1	State does not take any explicit steps to promote group prenatal care.	16
	0		

Have States Made Substantial Progress Toward Implementing Group Prenatal Care?



Numbers in the map below correspond to each state's level of progress, shown in the figure above. A higher number indicates a greater level of progress.

МЕ 1



States Vary in the Percentage of Women Receiving Adequate Prenatal Care

Group prenatal care (GPNC) is associated with a 10% increase in the receipt of adequate prenatal care.¹³ Thus, the receipt of adequate prenatal care is a good indicator for states to track to determine the effectiveness of GPNC. The following map shows the percentage of women who do not receive adequate prenatal care, defined as starting prenatal care after the fourth month of pregnancy or receiving fewer than 50% of expected prenatal visits, based on when the woman started care and the gestational age at delivery.¹⁴ The percentage of women who do not receive adequate prenatal care varies from a low of 5.3% in Vermont, the best rate in the country, to a high of 22.8% in New Mexico, the worst rate nationwide.

Lack of Prenatal Care



% of women who do NOT receive adequate prenatal care

States with a "Yes" have made substantial progress toward implementing group prenatal care.

Source: As of June 8, 2020. State health department websites and proposed and passed state legislation; CDC Vital Statistics - Natality Expanded 2018 (from CDC WONDER). For additional information please refer to the Methods and Sources section of <u>pn3policy.org</u>.



Explore your state's interactive data at **pn3policy.org/interactive**.

STRATEGY

EVIDENCE-BASED HOME VISITING PROGRAMS

Evidence-based home visiting programs are an effective state STRATEGY to impact:



Participation in evidence-based home visiting programs lead to:

- small but positive impacts on parenting skills; but
- less consistent evidence of impacts on other outcomes.

23

states supplement federal funding and have an estimated percentage of eligible children served by home visiting programs that is at or above the median state value (7.3%).

WHAT ARE EVIDENCE-BASED HOME VISITING PROGRAMS?

Home visiting programs, which provide support and education to parents in the home through a trained professional (e.g., nurse or social worker) or paraprofessional, have a growing evidence base and have expanded rapidly over the last decade as a state-based investment to support parents and children.¹

WHY ARE EVIDENCE-BASED HOME VISITING PROGRAMS IMPORTANT?

Supporting Families in the Early Years Produces Long-Term Benefits

Parents play a critical role in shaping children's early development.² Improving parents' knowledge, social support, and coping and problem-solving skills, as well as connecting families to community and health resources during the prenatal and early childhood periods, promotes positive long-term developmental trajectories in children.³

Nurturing Relationships Can Buffer Children From Adversity

Teaching parents the skills for warm and responsive caregiving can buffer the long-term negative effects of childhood stress and adversity.⁴

The Home-Based Delivery of Services Is Convenient for Many Families and Can Keep Them More Engaged

The convenience of home-based service delivery can maximize the likelihood that families will participate by eliminating or reducing barriers, such as transportation costs and child care needs.⁵ By providing support to families in their homes, it may be easier for the entire family, including fathers, to participate, and this delivery method may facilitate more personalized, individual attention, potentially increasing families' engagement in the programs.⁶

WHAT IMPACT DO EVIDENCE-BASED HOME VISITING PROGRAMS HAVE?

Participation in evidence-based home visiting programs leads to small but positive impacts on parenting skills, but these effects exist within the context of many more null findings. Fewer consistent impacts have been found on other important child and family outcomes, including birth outcomes,^{7,8} child maltreatment,^{9,10} and child health,^{11,12} but our review of the evidence on home visiting to date is limited to parenting impacts.

Strong Causal Studies Show That Evidence-Based Home Visiting Programs Impact One Prenatal-to-3 Policy Goal

Examples of Impact:



- Home visiting led to small but significant effects for improving parenting behaviors (overall effect sizes on parenting outcomes from meta-analyses range from 0.09 to 0.37) (A,C,D,E)
- Significant effects emerge within the context of many more null findings (B,E)

Note. Results are based on comprehensive reviews of the evidence. The letters in parentheses in the table above correspond to a strong causal study in the comprehensive evidence review of evidence-based home visiting programs. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at <u>pn3policy.org</u>.

WHAT DO WE STILL NEED TO LEARN ABOUT EVIDENCE-BASED HOME VISITING?

More Research Is Needed to Identify a State Policy Lever to Implement Evidence-Based Home Visiting Programs

As a state strategy, evidence-based home visiting programs are effective at improving parenting skills, but research does not provide a specific state policy lever to guide the optimal funding or implementation of home visiting programs. Recent studies have attempted to identify which factors or components of home visiting—including targeting high-risk families versus taking a more universal approach—are associated with better outcomes, but no consistent pattern has emerged. States would benefit from knowing which aspects of home visiting matter the most for families, such as the frequency of visits or the target population served, and future research should seek to elucidate these answers.

More Needs to Be Studied About the Impacts of Evidence-Based Home Visiting Programs on People of Color

Most of the research on parenting outcomes in home visiting programs either does not examine impacts by race and ethnicity, or no significant differences emerge in subgroup analyses. Research does suggest that matching clients and home visitors on race and/or ethnicity can have better effects on birth outcomes, but this finding does not hold for parenting outcomes.¹³ Future studies should examine differential impacts of evidence-based home visiting programs based on race and ethnicity.

The Return on Investment for Evidence-Based Home Visiting Programs Needs to Be Studied More

High-quality home visiting programs have been found to produce \$1.75 to \$5.70 in cost savings for every dollar spent on the program. Savings attributed to home visiting programs have been identified in areas including child welfare, special education, and criminal justice. However, the current evidence base has not demonstrated how parenting behaviors specifically are linked to cost savings, and future research should prioritize examining the mechanisms through which home visiting could yield cost savings.

Additional Studies Will Be Helpful to Further Understand the Effects of Evidence-Based Home Visiting Programs on Other Policies

More research is necessary to understand how evidence-based home visiting programs interact with other policies that impact the prenatal-to-3 population, such as comprehensive screening and referral programs, which are a common referral source into home visiting programs.

Tracking and Evaluating How States Have Responded to COVID-19 Will Be Essential

The COVID-19 pandemic has required states to shift much of their home visiting practice to a remote environment. A survey of 1,312 programs implementing more than 30 different home visiting models found that 88% of programs stopped in-person visits completely, allowing only telephone or virtual visits aided by teleconferencing technology.¹⁴ More time is needed to assess the full impact of the evolving pandemic on states' home visiting programs and family outcomes.

HOW DO STATES VARY IN THEIR IMPLEMENTATION OF EVIDENCE-BASED HOME VISITING PROGRAMS?

In the absence of a clear state policy lever to assess variation across the states, we describe instead how states compare to one another in their progress toward implementing evidence-based home visiting programs.

The Majority of States Supplement Federal Funding to Implement Home Visiting, and Many Also Serve Eligible Children at a Percentage Higher Than the Median State Value

Currently, all 51 states implement home visiting programs using federal funds or a combination of federal and state funds. Thirty-eight states supplement federal funding with state funding to implement evidence-based home visiting,¹⁵ and 23 of those states also serve eligible children at a percentage at or above the median value across states (7.3%). The percentage of eligible children is determined by calculating the number of children participating in home visiting as a proportion of the number of low-income children under age 3 (below 150% of the FPL). Thirteen states do not supplement federal funding with additional state funding, but of these states, three states serve a proportion of their children at or above the median state value of 7.3%.

How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?

Without state statute or law to review for progress toward a defined legislative or regulatory action, we leveraged available data assessing state variation in each of the strategies to demonstrate how states are making progress implementing the six strategies relative to one another. Indicators of variation included factors such as the percentage of children or families that states serve through the strategy, states' eligibility criteria for the strategy, whether states invest state funds in the strategy, and whether states meet the federal recommendations for implementing the strategy.

Based on information from the National Home Visiting Resource Center, the Home Visiting Evidence of Effectiveness, the National Conferences of State Legislatures (NCSL) FY19 state budget survey, state statutes and adopted FY19 budgets, and data estimating the percent of eligible children served by home visiting relative to other states, we determined whether a state supplemented federal funding for evidence-based home visiting programs and if the estimated percent of eligible children served by home visiting is at or above the median state value (7.3%).

The figure on the next page shows the progress states have made to date toward implementing evidence-based home visiting programs. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

k

Explore your state's interactive data at **pn3policy.org/interactive**.

Have States Made Substantial Progress Toward Implementing Evidence-Based Home Visiting Programs?

Progress		Detail	# of States
	10		
Substantial Progress	9	State supplements federal funding, and the estimated percentage of eligible children served by home visiting is more than twice the median state value (14.6%).	5
	8		
	7	State supplements federal funding, and the estimated percentage of eligible children served by home visiting is between the median state value (7.3%) and twice the median state value (14.6%).	18
	6		
Some Progress	5	State supplements federal funding, but the estimated percentage of eligible children served by home visiting is below the median state value (7.3%).	15
	4	State does not supplement federal funding, but the estimated percent of eligible children served by home visiting is more than twice the median state value (14.6%).	0
	3	State does not supplement federal funding, but the estimated percentage of eligible children served by home visiting is between the median state value (7.3%) and twice the median state value (14.6%).	3
Little to No Progress	2		
	1	State does not supplement federal funding, and the estimated percentage of eligible children served by home visiting is below the median state value (7.3%).	10
	0		

Numbers in the map below correspond to each state's level of progress, shown in the figure above. A higher number indicates a greater level of progress.

AK 1 ME 9

					WI 7				VT 7	NН 1
WA 7	ID 1	MT 3	ND 1	MN 7	IL 7	MI 5		NY 1	MA 5	
OR 7	NV 1	WY 3	SD 1	IA 9	IN 7	ОН 7	PA 7	NJ 7	СТ 7	RI 9
CA 5	UT 5	CO 7	NE 5	MO 9	КҮ 7	WV 7	VA 5	MD 5	DE 7	
	AZ 7	NM 5	KS 9	AR 5	TN 5	NC 7	SC 1	DC 5		
			ОК 5	LA 5	MS 1	AL 5	GA 1			
HI 5			TX 5					FL 3		
At Least Two Evidence-Based Home Visiting Programs Are Implemented in Each State

At least two home visiting program models that have a demonstrated impact on parenting serve families in every state. California, Maryland, and North Carolina are implementing eight different evidence-based models that have demonstrated an impact on parenting.

The Reach of Home Visiting Varies Across States, but Generally Is Small

The reach of home visiting is relatively small across the country. The percentage of children participating in home visiting as a proportion of the number of low-income children under age 3 (less than 150% of the federal poverty threshold) ranges from a low of 0.8% in Nevada to a high of 23.7% in Maine and Rhode Island. The median state value is 7.3%, which implies that half of states serve more than this percentage of eligible children and half of states serve fewer.

Children Served by Home Visiting

Estimated % of eligible children under age 3 served by home visiting programs



States with a "Yes" have made substantial progress toward implementing evidence-based home visiting programs.

Source: As of June 11, 2020. National Home Visiting Resource Center; 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS). For additional information, please refer to the Methods and Sources section of pn3policy.org.



STRATEGY

EARLY HEAD START

Early Head Start is an effective state STRATEGY to impact:



Early Head Start:

- improves numerous aspects of childparent relationships;
- positively impacts participation in good-quality child care; and
- positively impacts language and vocabulary skills and problem behaviors.

7

states supplement federal funding and have an estimated percentage of income-eligible children with access to EHS that is at or above the median state value (8.9%).

WHAT IS EARLY HEAD START?

Early Head Start is a federally funded program serving low-income pregnant women, infants, toddlers, and their families.¹ Early Head Start promotes healthy social, emotional, cognitive, and physical development in young children, assists parents in developing positive parenting skills and moving toward self-sufficiency goals, and brings together community partners and resources to provide families with comprehensive services and support.²

WHY IS EARLY HEAD START IMPORTANT?

Early Head Start Is Delivered in Various Formats to Promote Child and Family Wellbeing

Early Head Start can be home-based, center-based, focused on family child care, or an alternative locally designed approach. Each format approaches the goal of child wellbeing and healthy development differently. By providing comprehensive services to the family, including mental and physical health services to children and a variety of supports to parents, EHS aims to bolster the child's social support through family members.³

Home-Based Early Head Start Supports Parents, Promoting Child Development Indirectly

Early Head Start provided in the home aims to improve child development indirectly through providing services and supports to parents. By improving parents' knowledge of child development, warm and responsive caregiving skills, social support, and coping and problem-solving skills, as well as connecting families to community and health resources during the prenatal and early childhood period, home-based Early Head Start can promote positive short-term child wellbeing outcomes⁴ and long-term developmental trajectories in children⁵ and buffer the long-term negative effects of childhood stress and adversity.⁶

Center-Based Early Head Start Impacts Children Directly Through Classroom Environments and Teacher-Child Interactions

Early Head Start early care and education (ECE) environments have the potential to impact children by providing highquality classroom environments that can lead to improved child outcomes (e.g., school readiness).⁷ Early Head Start ECE environments include direct support to children through their classroom context (e.g., evidence-based curricula, physical environment) and indirect supports through quality teacher-child interactions (fostered by small group sizes, low childto-adult ratios, and high teacher qualifications).^{8,9,10}

Policies Versus Strategies in This Roadmap

In this Roadmap, we define policies as having clear legislative or regulatory action, based on research gleaned through comprehensive reviews of rigorous evidence. By contrast, the evidence on effective strategies does not provide clear legislative guidance on how to fund or implement the strategy to garner the impacts at a statewide level that were demonstrated in studies. The evidence base will continue to expand to provide more direction to states. Please see pn3policy.org for additional information.



WHAT IMPACT DOES EARLY HEAD START HAVE?

Early Head Start improves numerous aspects of children's relationships with the adults in their lives, leaving children better off due to more nurturing and responsive relationships with parents and teachers in safe settings. Early Head Start also may improve child health and development.

Early Head Start May Benefit Black Families the Most

Although no strong causal evidence evaluates the effectiveness of EHS at reducing racial disparities, research demonstrates that the impact of EHS on child-parent relationships and optimal child health and development is stronger for Black families than for White and Hispanic families.¹

Strong Causal Studies Show That Early Head Start Impacts Three Prenatal-to-3 Policy Goals

Examples of Impact:

- EHS participation led to more supportive home environments for language and literacy (effect sizes 0.12) (I, S), particularly for Black families (effect size 0.19) (N) and families with moderate-level risk factors (effect size 0.18) (N)
 - Fewer parents participating in EHS reported spanking their child (effect size -0.13) (J, S)
 - Black EHS parents were more involved in school at grade 5 follow-up (effect size 0.37) (T)



Nurturing

and Responsive

- The share of children participating in good-quality center-based care was three times greater among children in EHS (K)
- In center-based care, caregiver-child interactions were better among EHS participants than among nonparticipants (K)



- Children in EHS were more engaged during play (effect size 0.18) (J, S)
- Children in EHS had higher developmental functioning assessment scores (effect sizes 0.14) (I, S), particularly Black children in EHS (effect size 0.23) (N)

Note. Results are based on comprehensive reviews of the evidence, Letters in parentheses in the table above correspond to a strong causal study in the comprehensive evidence review of Early Head Start Each strong causal study reviewed has been assigned a letter. AA complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at <u>pn3policy.org</u>.

WHAT DO WE STILL NEED TO LEARN ABOUT EARLY HEAD START?

More Research Is Needed to Identify a State Policy Lever to Implement Early Head Start

The current evidence base draws primarily from the Early Head Start Research and Evaluation Project, but it does not provide clear guidance to states on the necessary level of resources to make EHS an effective statewide policy—such as the best funding methods, the optimal program dosage, and the most effective components of EHS. States currently support EHS through various funding strategies including, supplemental funding, leveraging federal funding, or through other mechanisms within early childhood systems. Existing research on EHS does not measure program dosage (e.g., number of home visits, weeks in center-based care, amount of comprehensive services received) well, which could mask important variation in what services families receive. Current research also does not identify which specific components of EHS lead to better outcomes or if certain delivery formats are more beneficial than others. Learning more about the variation in funding, dosage, delivery, and program components will help states determine the best way to implement EHS.

More Needs to Be Studied About the Impacts of Early Head Start on People of Color

The bulk of EHS evidence does not include diverse samples, and often, between-group differences based on race and ethnicity are not provided. Thus, drawing conclusions about how EHS can reduce racial and ethnic disparities is not yet possible. Some research suggests that Black families benefit the most from EHS, in absolute terms, relative to their nonparticipant counterparts. Future research should seek to explore differential impacts even more.

Additional Studies Will Be Helpful to Further Understand the Effects of Early Head Start on Other Policies

More research is necessary to understand how EHS programs interact with other policies that impact the prenatal-to-3 population, such as comprehensive screening and referral programs, which are a common referral source into EHS programs. Additional studies on how EHS and other ECE policies impact one another also will be critical. Unfortunately, policies that may positively impact families financially, such as a state minimum wage and state EITC can increase the income of some families who use EHS services, putting them over the income eligibility threshold for EHS. More research is necessary to understand whether the additional income offsets the loss of access to programs like EHS. States should continue to explore avenues to implement policies that support the family financially while also allowing continued eligibility in programs that benefit the family in other ways.

The Return on Investment for Early Head Start Needs to Be Studied More

Data on the cost of EHS are limited: In 2014-15, the national average federal funding per child in EHS was \$12,575 (adjusted for cost of living).¹² Cost figures vary widely by state and do not include grantee cost-sharing spending. No additional studies identified in our evidence review examined the return on investment for EHS.

Tracking and Evaluating How States Have Responded to COVID-19 Will Be Essential

As part of the CARES Act, \$750 million is allocated for Head Start services to support preventative, preparedness, and responsive activities to the coronavirus. Awarded on a non-competitive basis, \$500 million is available for programs to operate supplemental summer programs, and \$250 million is available for one-time activities as a response to the coronavirus.¹³ The Office of Head Start also has provided updates around Head Start Activities in response to COVID-19 and has created the Virtual Early Education Center, which is an online tool that is designed to look and feel like an early care and education center.¹⁴ The impact of virtual Head Start activities and related policies remains to be determined.

HOW DO STATES VARY IN THEIR IMPLEMENTATION OF EARLY HEAD START?

In the absence of a clear state policy lever to assess variation across the states, we describe instead how states compare in their progress toward implementing Early Head Start.

A Minority of States Supplement Federal Funding With State Funding to Implement Early Head Start Programs

Only nine states supplement federal funding with state dollars to implement EHS, and seven of these nine states both supplement EHS with state funds and serve at least 8.9% (the median state value) of income-eligible children.

Early Head Start Is Primarily a Federally Funded Program

Early Head Start is primarily a federal-to-local program, meaning that the federal government provides grants for operating Early Head Start programs directly to local-level organizations such as community agencies (nonprofit and for-profit), local governments, and existing Head Start grantees; however, states and territories are also eligible to be Early Head Start grantees and may apply and receive funding directly from the federal government to operate Early Head Start programs.¹⁵ As of Program Year 2019, Early Head Start programs exist in every state, and one state, Pennsylvania, is an Early Head Start state grantee.¹⁶

All States Have Center-Based and Home-Based Early Head Start Programs, and Some States Have Additional Delivery Formats

Center- and home-based EHS programs are available in all 51 states.¹⁷ Home-based EHS provides weekly home visits to families to promote parents' skills to support healthy child development, as well as group activities for enrolled families. Center-based services operate in a classroom setting within a child care center, Early Head Start center, or school and generally provide at least 1,380 hours of care, education, and child development services annually. Thirty-two states provide family child care, which includes services similar to center-based EHS programs, but in a home or family-care setting.^{18,19} To date, 24 states have grantees offering locally designed options, which combine aspects of various program approaches. For example, families may receive both home- and center-based services as part of a locally designed Early Head Start program.²⁰

How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?

Without state statute or law to review for progress toward a defined legislative or regulatory action, we leveraged available data assessing state variation in each of the strategies to demonstrate how states are making progress implementing the six strategies relative to one another. Indicators of variation included factors such as the percentage of children or families that states serve through the strategy, states' eligibility criteria for the strategy, whether states invest state funds in the strategy, and whether states meet the federal recommendations for implementing the strategy.

Based on information from the National Head Start Association 2019 report, confirmation emails and phone calls with state EHS experts, 2019 Early Head Start (EHS) Program Information Report (PIR), and data estimating the percent of income-eligible children with access to EHS relative to other states, we determined whether a state supplemented federal funding for Early Head Start and if the estimated percent of income-eligible children with access to EHS relative to EHS is at or above the median state value (8.9%).

The figure on the following page shows the progress states have made to date toward implementing Early Head Start. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

Progress		Detail	# of States
Substantial	10		
	9	State supplements federal funding, and the estimated percent of income-eligible children with access to EHS is more than twice the median state value (17.8%).	0
Progress	8		
	7	State supplements federal funding, and the estimated percent of income-eligible children with access to EHS is between the median state value (8.9%) and twice the median state value (17.8%).	7
Some Progress	6		
	5	State supplements federal funding, but the estimated percent of income-eligible children with access to EHS is below the median state value (8.9%).	2
	4	State does not supplement federal funding, but the estimated percent of income-eligible children with access to EHS is more than twice the median state value (17.8%).	4
	3	State does not supplement federal funding, but the estimated percent of income-eligible children with access to EHS is between the median state value (8.9%) and twice the median state value (17.8%).	15
Little to No Progress	2		
	1	State does not supplement federal funding, and the estimated percent of income-eligible children with access to EHS is below the median state value (8.9%).	23
	0		

Have States Made Substantial Progress Toward Implementing Early Head Start?



ME 7

AK 4

					WI 7				VT 4	NH 1
WA 3	ID 1	MT 4	ND 3	MN 7	IL 3	MI 3		NY 1	MA 5	
OR 7	NV 1	WY 3	SD 3	IA 7	IN 1	ОН 1	PA 3	NJ 1	CT 5	RI 3
CA 3	UT 1	CO 1	NE 3	MO 7	КҮ 1	WV 1	VA 1	MD 3	DE 3	
	AZ 1	NM 3	KS 3	AR 1	TN 1	NC 1	SC 1	DC 4		
			ОК 7	LA 1	MS 3	AL 1	GA 1			
HI 1			TX 1					FL 1		

213

State Investments in Early Head Start Are Limited

Only nine states invest state funds in Early Head Start. These states facilitated the additional infusion of EHS funding through state statute—as is the case in Connecticut—and through line-item or department-specific budget allocations. In five of the nine states, funding is allocated to both Head Start and Early Head Start programs in a single statute or budgetary line item, which makes delineating the exact impact on EHS programs challenging. Whereas some states dedicate funds to serve a larger number of eligible children, other states set aside funds to increase pay for Early Head Start staff, to extend the hours that Early Head Start is available throughout the day, to improve program quality, or to aid local programs so they can meet the non-federal share-matching requirement of 20%.

Relatively Few Income-Eligible Children Have Access to Early Head Start in Most States

States vary in the share of income-eligible children with access to Early Head Start in each state, ranging from 3.5% in Tennessee to 26.0% in the District of Columbia, the highest in the nation. The percentages refer to children with access to funded slots for Early Head Start. More children may actually be served by Early Head Start, but state funding influences the slots available.

Children With Access to EHS

Estimated % of income-eligible children under age 3 with access to Early Head Start



States with a "Yes" have made substantial progress toward funding and providing access to EHS.

Source: As of 2020. National Head Start Association report, confirmation emails and phone calls from state EHS experts, 2019 Early Head Start (EHS) Program Information Report (PIR) and 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS). For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

STRATEGY

EARLY INTERVENTION SERVICES

Early Intervention services are an effective state STRATEGY to impact:



Early Intervention Services:

- improve parents' self-confidence and satisfaction; and
- improve children's cognitive, motor, behavioral, and language development, especially for infants born preterm or low birthweight.

5

states have moderate or broad criteria to determine eligibility and also serve children who are at risk for later developmental delays or disabilities.

WHAT ARE EARLY INTERVENTION SERVICES?

Early Intervention (EI) is a federal grant program that provides funds to states to coordinate services for infants and toddlers (birth to age 3) with disabilities or developmental delays, regardless of family income.¹ EI services are authorized by Part C of the Individuals with Disabilities Education Act (IDEA). States are charged with developing eligibility rules and ensuring that children who may have a developmental delay or who may be at risk for developing a delay are evaluated for Part C eligibility in a timely manner.² To supplement the federal dollars, states use a variety of funding streams, including Medicaid, private insurance, and parent fees for services, often on a sliding scale.³

WHY ARE EARLY INTERVENTION SERVICES IMPORTANT?

Access to Early Intervention Services Can Prevent Further Delays and Reduce the Need for Special Education Services

Access to services, such as speech therapy for a child with language delays or physical therapy for a child with motor challenges, can improve the developmental trajectories of infants and toddlers and prevent further delays—also reducing the need for special education services in grade school or more intensive supports when children are older.⁴

Early Intervention Services Can Promote Longer-Term Self-Sufficiency

Services that support children with disabilities early in life can help them develop independent living skills in the long term.⁵

Family-Centered Services Can Help Support Parents and Other Caregivers

Early Intervention services can help parents and caregivers develop skills to interact with and care for their infant or toddler in a way that will best support their development.⁶

Millions of Children Need Early Intervention Services

National research suggests that the prevalence of children under age 3 with delays and disabilities who can benefit from Early Intervention services is between 13% and 20%.⁷ In 2018, Part C served 409,315 children (and their families) ages 0 to 3–3.5% of the US population under age 3.^{8,9}

Unfortunately, Families of Color and Low-Income Families May Not Have Equal Access to Early Intervention Services

Children from lower-income families and communities of color do not have equitable access to Early Intervention services and often experience disruptions in the pathway from referral to evaluation and enrollment.^{10,11,12} This inequity limits the ability of EI programs to reduce disparities in developmental outcomes.

Policies Versus Strategies in This Roadmap

In this Roadmap, we define policies as having clear legislative or regulatory action, based on research gleaned through comprehensive reviews of rigorous evidence. By contrast, the evidence on effective strategies does not provide clear legislative guidance on how to fund or implement the strategy to garner the impacts at a statewide level that were demonstrated in studies. The evidence base will continue to expand to provide more direction to states. Please see pn3policy.org for additional information.



WHAT IMPACT DO EARLY INTERVENTION SERVICES HAVE?

Early Intervention services for infants and toddlers with developmental delays or diagnosed medical conditions can improve children's cognitive development, language/communication skills, and motor skills, especially for infants born preterm or low birthweight, for whom the most rigorous research exists. Early Intervention services also boost maternal confidence.

Early Intervention Services Can Save States Money by Reducing the Need for Special Education Services

A recent analysis of six states found that EI services helped between 760 and 3,000 children per state to avoid special education services at age 3, with a 1-year cost avoidance of between \$7.6 million to \$68.2 million depending on the state.¹³ Three-year cost avoidance estimates, which accounted for children re-entering special education services after an initial exit, still projected substantial cost savings. For example, Michigan calculated a potential 3-year cost savings of \$27.1 million even when 25% of children were expected to return to special education services in the second and third years.¹⁴

Strong Causal Studies Show That Early Intervention Services Impact Two Prenatal-to-3 Policy Goals

Examples of Impact:

Parental Health and Emotional Wellbeing

• Mothers of low birthweight infants who received EI services scored significantly higher on scales of maternal self-confidence and maternal role satisfaction than control groups (D, H)

Optimal Child Health and Development

- A meta-analysis of 31 studies found an average effect size of 0.62 for improving children's cognitive skills (F)
- Low birthweight, premature infants who were assigned to EI services saw better cognitive and behavioral outcomes at age 3 than infants in control groups (C, D)
- El services improved toddlers' receptive language skills relative to a control group (0.35 effect size) (E)

Note. Results are based on comprehensive reviews of the evidence. The letters in parentheses in the table above correspond to a strong causal study in the comprehensive evidence review of Early Intervention services. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the Appendix. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at <u>pn3policy.org</u>.

WHAT DO WE STILL NEED TO LEARN ABOUT EARLY INTERVENTION SERVICES?

More Research Is Needed to Identify a State Policy Lever to Implement Early Intervention

The evidence base for Early Intervention services focuses on the benefits that participation in services can produce for infants and toddlers, rather than examining the impacts of a state-level EI policy. Studies regarding state eligibility policies are correlational rather than causal and find mixed results, making them inadequate for attributing a causal impact of the eligibility policy on participation in EI services. Because all children must be provided services who are identified as eligible, experimental studies would be unethical, further limiting the ability to make conclusions about the causal impact of EI services as a statewide policy.

More Needs to Be Studied About the Impacts of Early Intervention Services on People of Color

Studies have shown that inequities in access to EI services exist by race and socioeconomic status. For example, by age 2, Black children were found to be 5 to 8 times less likely to receive EI services than White children, depending on the eligibility category.¹⁵ States would benefit from knowing more about how to increase access among communities of color and families with lower incomes, as well as whether EI services have a different impact on certain subgroups.

Additional Studies Will Be Helpful to Further Understand the Effects of Early Intervention Services on Other Policies

More research is necessary to understand how Early Intervention services interact with other policies that impact the prenatal-to-3 population, such as comprehensive screening and referral programs and home visiting programs, which could be a referral source into Early Intervention programs.

Tracking and Evaluating How States Have Responded to COVID-19 Will Be Essential

In response to the COVID-19 pandemic, states such as Texas, Minnesota, and Illinois have been offering telehealth services for Early Intervention.^{16,17,18} Colorado began providing outdoor Early Intervention services on August 3, 2020, and all Early Intervention services took place virtually through at least July 2020. As states continue to respond to the pandemic, the effects of adapted Early Intervention services remain to be seen.



Search the new Prenatal-to-3 Policy Clearinghouse for an ongoing inventory of rigorous evidence reviews at **pn3policy.org/clearinghouse**.

HOW DO STATES VARY IN THEIR IMPLEMENTATION OF EARLY INTERVENTION SERVICES?

In the absence of a clear state policy lever to assess variation across the states, we describe instead whether states meet certain federal recommendations, discussed below.

Five States Serve Children at Risk for Delays and Use Broad or Moderate Eligibility Criteria

States can serve children who do not meet eligibility criteria (based on medical conditions or the percentage delay in a given developmental area) if the children experience other conditions or circumstances that put them at risk for later delays or disabilities. These conditions often include low birthweight and preterm birth, but each state can independently define the "at-risk" criteria. Currently, only one state (New Mexico) serves children at risk for delays and also uses broad criteria to determine eligibility (the broader the eligibility criteria, the more children eligible for services). An additional four states serve children at risk of delays, but instead use moderate eligibility criteria. No other states provide services to children who are at risk for later developmental delays or disabilities. Sixteen states, in fact, use narrow criteria, severely limiting the number of children eligible to be served.

How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?

Without state statute or law to review for progress toward a defined legislative or regulatory action, we leveraged available data assessing state variation in each of the strategies to demonstrate how states are making progress implementing the six strategies relative to one another. Indicators of variation included factors such as the percentage of children or families that states serve through the strategy, states' eligibility criteria for the strategy, whether states invest state funds in the strategy, and whether states meet the federal recommendations for implementing the strategy.

Based on information from the IDEA Infant and Toddler Coordinators Association, state regulations retrieved from state legal statutes, health department regulations, and Early Intervention program websites, we determined whether a state has moderate or broad criteria to determine eligibility and serves children who are at risk for later delays or disabilities.

The figure on the following page shows the progress states have made to date toward implementing Early Intervention services. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.



Progress		Detail	# of States
Substantial Progress	10		
	9	State uses broad criteria to determine eligibility, and the state serves children who are at risk for later delays or disabilities.	1
	8		
	7	State uses moderate criteria to determine eligibility, and the state serves children who are at risk for later delays or disabilities.	4
	6	State uses broad criteria to determine eligibility, but the state does not serve children who are at risk for later delays or disabilities.	16
Some Progress	5		
	4	State uses moderate criteria to determine eligibility, but the state does not serve children who are at risk for later delays or disabilities.	14
	3	State uses narrow criteria to determine eligibility, but the state serves children who are at risk for later delays or disabilities.	0
Little to No Progress	2		
	1	State uses narrow criteria to determine eligibility, and the state does not serve children who are at risk for later delays or disabilities.	16
	0		

Have States Made Substantial Progress Toward Implementing Early Intervention Services?



Numbers in the map below correspond to each state's level of progress, shown in the figure above. A higher number indicates a greater level of progress.



					WI 6				VT 6	NH 7
WA 6	ID 1	MT 1	ND 4	MN 4	IL 4	MI 6		NY 4	MA 7	
OR 1	NV 1	WY 4	SD 4	IA 6	IN 4	OH 4	PA 6	NJ 1	СТ 1	RI 4
CA 7	UT 4	CO 6	NE 4	МО 1	KY 1	WV 7	VA 6	MD 6	DE 6	
	AZ 1	NM 9	KS 6	AR 6	TN 4	NC 4	SC 1	DC 6		
			ОК 1	LA 1	MS 4	AL 6	GA 1			
HI 6			TX 6					FL 1		

States Vary in How They Determine Who Is Eligible to Receive Early Intervention Services

In general, EI services are intended to support the development of infants and toddlers with a variety of delays and disabilities, not just children with the most severe impairments. Each state determines its own eligibility requirements within the federal guidelines, which means that the percentage of children ages 0 to 3 who may qualify for EI services varies greatly based on state policy. State eligibility policies are classified as "broad," "moderate," or "narrow," depending on the percentage delay in a developmental area required to receive services (typically 25 percent, 33 percent, and 50 percent, respectively), but specific eligibility criteria vary considerably.¹⁹ The percentage delay is determined by calculating the difference between a child's score on a standardized screening tool and the average score on that screening assessment based on the child's age. Over 20 unique eligibility formulas are used by the states that use a numerical definition of developmental delay.²⁰

The following tables show the criteria used by states to determine eligibility for EI services and whether those criteria are considered broad, moderate, or narrow.

Criteria Used to Determine Eligibility for Early Intervention Services in States With <u>Broad</u> Eligibility Criteria

State	Criteria Used to Determine Eligibility for El Services (<u>Broad</u> Criteria)
Alabama	25% delay in one area
Arkansas	25% delay in one area
Colorado	25% delay in one area
Delaware	25% delay or 1.75 standard deviations below the mean in one area
District of Columbia	50% delay in one area or 25% delay in two areas
Hawaii	1.4 standard deviations below the mean in one area; or 1 standard deviation below the mean in two areas
Iowa	25% or more delay in one area
Kansas	25% delay in one area; or 20% delay in two areas
Maryland	25% delay or more in one area; or manifests behavior that is likely to result in a subsequent delay
Michigan	20% delay or 1 standard deviation below the mean in one area
New Mexico	25% delay or 1.5 standard deviations below the mean in one area
Pennsylvania	25% delay or 1.5 standard deviations below the mean in one area
Texas	25% delay in one area; if the only delay is expressive language development there must be a 33% delay
Vermont	Clearly observable and measurable delay in one area
Virginia	25% delay in one area
Washington	25% delay or 1.5 standard deviations below the mean in at least one area
Wisconsin	25% delay in one area

Sources: As of June 2020. 2018 IDEA Infant and Toddler Coordinators Association, state regulations retrieved from state legal statutes, health department regulations, and Early Intervention program websites. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Criteria Used to Determine Eligibility for Early Intervention Services in States With <u>Moderate</u> Eligibility Criteria

State	Criteria Used to Determine Eligibility for El Services (<u>Moderate</u> Criteria)
California	33% delay in one area or are at high risk for developing a delay, for children up to 36 months old
Illinois	30% or more delay one area
Indiana	25% delay or 2 standard deviations below the mean in one area; or 20% delay or 1.5 standard deviations below the mean in two areas
Massachusetts	1.5 standard deviations below the mean in one area
Minnesota	1.5 standard deviations below the mean in one area
Mississippi	33% delay or 2 standard deviations below the mean in one area; or 25% delay or 1.5 standard deviations below the mean in two areas
Nebraska	2 standard deviations below the mean in one area or 1.3 standard deviations below the mean in two areas
New Hampshire	33% delay in one area or "atypical behavior" as documented by the family and qualified personnel
New York	33% delay, 12-month delay, or 2 standard deviations below the mean in one area; or 25% delay or 1.5 standard deviations below the mean in two areas
North Carolina	30% delay or 2 standard deviations below the mean in one area; or 25% delay or 1.5 standard deviations below the mean in two areas
North Dakota	50% delay in one area or 25% delay in two areas
Ohio	1.5 standard deviations below the mean in one area
Rhode Island	2 standard deviations below the mean in one area or 1.5 standard deviations below the mean in two areas
South Dakota	1.5 standard deviations below the mean in one area
Tennessee	40% delay in one area or 25% delay in two areas
Utah	1.5 standard deviations below the mean or at or below the 7th percentile in one area
West Virginia	40% delay in one area; or 25% delay in two areas
Wyoming	25% delay or 1.5 standard deviations below the mean in one area

Sources: As of June 2020. 2018 IDEA Infant and Toddler Coordinators Association, state regulations retrieved from state legal statutes, health department regulations, and Early Intervention program websites. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Criteria Used to Determine Eligibility for Early Intervention Services in States With <u>Narrow</u> Eligibility Criteria

State	Criteria Used to Determine Eligibility for El Services (<u>Narrow</u> Criteria)
Alaska	50% delay in one area
Arizona	50% delay in one area
Connecticut	2 standard deviations below the mean in one area; or 1.5 standard deviations below the mean in two areas
Florida	2 standard deviations below the mean in one area; or 1.5 standard deviations below the mean in two areas
Georgia	Diagnosed developmental delay confirmed by a qualified team of professionals
Idaho	30% delay, 6-month delay or 2 standard deviations below the mean in one area; or 1.5 standard deviations below the mean in two areas
Kentucky	2 standard deviations below the mean in one area or 1.5 standard deviations below the mean in two areas
Louisiana	1.5 standard deviations below the mean in two areas
Maine	2 standard deviations below the mean in one area; or 1.5 standard deviations below the mean in two areas
Missouri	50% delay in one area
Montana	50% delay in one area or 25% delay in two areas
Nevada	50% delay in one area or 25% delay in two areas
New Jersey	2 standard deviations below the mean in one area or 1.5 standard deviations below the mean in two areas
Oklahoma	50% delay or 2 standard deviations below the mean in one area; or 25% delay or 1.5 standard deviations below the mean in two areas
Oregon	30% delay or 2 standard deviations below the mean in one area; or 15% delay or 1.5 standard deviations below the mean in two areas
South Carolina	40% delay or 2 standard deviations below the mean in one area; or 25% delay or 1.5 standard deviations below the mean in two areas

Sources: As of June 2020. 2018 IDEA Infant and Toddler Coordinators Association, state regulations retrieved from state legal statutes, health department regulations, and Early Intervention program websites. For additional information, please refer to the Methods and Sources section of pn3policy.org.

States Vary in the Percentage of Children Served by Early Intervention

The percentage of children served through Early Intervention services ranges from a low of 0.9% in Arkansas to a high of 10.1% in Massachusetts, despite research suggesting that the national prevalence of children under age 3 with delays and disabilities who can benefit from Early Intervention services is between 13% and 20%.²¹

Children Receiving Early Intervention Services

% of all children under age 3 receiving Early Intervention services



States with a "Yes" have made substantial progress toward implementing Early Intervention services.

Sources: 2018 IDEA Infant and Toddler Coordinators Association, state regulations retrieved from state legal statutes, health department regulations, and Early Intervention program websites, all as of June 2020. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

STRENGTHENING THE PRENATAL-TO-3 SYSTEM OF CARE IN ALL STATES

The Prenatal-to-3 State Policy Roadmap provides states with the information they need to:



EFFECTIVE POLICIES AND STRATEGIES STRENGTHEN THE PRENATAL-TO-3 SYSTEM

Through comprehensive reviews of the most rigorous evidence to date, the Prenatal-to-3 Policy Impact Center at the University of Texas at Austin identified five effective policies and six effective strategies that foster the nurturing environments infants and toddlers need to thrive and many of which, reduce long-standing disparities in outcomes based on race, ethnicity, and socioeconomic status. As the evidence base grows and more information becomes available, the list of effective policies and strategies will expand, and additional information on the return on investment of each effective solution will be provided. Currently, states should strive to implement the 11 PN-3 solutions with the strongest evidence of effectiveness to date.

The Roadmap chart on the following page identifies the effective policies and strategies that positively impact each PN-3 goal. Some policies and strategies impact multiple goals. For example, implementation of a state minimum wage can help a state work toward four different policy goals: sufficient household resources, healthy and equitable births, parental health and emotional wellbeing, and optimal child health and development. At the same time, a single goal may be impacted by several policies and strategies. For example, states that want to increase sufficient household resources can look to five policies (expanded income eligibility for health insurance, reduced administrative burden for SNAP, paid family leave, state minimum wage, and state EITC) and one strategy (child care subsidies) to help them achieve this goal.

In the Roadmap chart, each goal is represented in a column, and the circles in the columns align with the policies and strategies that impact the goals. This chart helps each state select the policies and strategies that directly impact the

Prenatal-to-3 State Policy Roadmap



STRENGTHENING THE PRENATAL-TO-3 SYSTEM OF CARE IN ALL STATES

Prenatal-to-3 Policies Have a Big Impact

The impact that some of the policies have on outcomes associated with the PN-3 goals is quite substantial and direct. For example, expanding income eligibility for health insurance to most adults with low incomes increases women's access to Medicaid prior to conception by 8.6 percentage points. Moreover, a 10% increase in a state's minimum wage reduces poverty for children under age 6 by 9.6%.

Some policies also have indirect effects that are substantial and somewhat surprising. For example, a policy aimed at increasing household resources—the state EITC—not only increases earnings, but is also more effective at reducing racial and ethnic disparities in adverse birth outcomes than is group prenatal care, a program directly designed to improve birth outcomes.

Most policies and strategies impact more than one PN-3 goal, but paid family leave and expanded income eligibility for health insurance are the most broadly effective, impacting six and five goals, respectively. These two policies not only provide children and families with access to services and greater resources within their households, but they also promote better parental health and child wellbeing.

More detailed information on each of the policies and strategies is available in the Policy Profile section of this Roadmap and at the Prenatal-to-3 Policy Clearinghouse at <u>pn3policy.org</u>.

We Still Need to Learn More, Especially About Quality Child Care

As more rigorous evaluations are conducted on the innovative approaches that states are taking to improve the wellbeing of infants and toddlers, the evidence base will expand, and we will identify additional policies and strategies that positively impact the PN-3 goals. Learning more about how to enhance nurturing and affordable child care for infants and toddlers should be a priority for the field. To date, most of the research conducted has focused on 3- and 4-year-old children in prekindergarten settings, rather than on infants and toddlers. Yet, even the existing research on preschoolers provides insufficient guidance to states on how to support high-quality, affordable child care that improves child outcomes.



NO STATE IS DOING IT ALL, BUT MANY ARE MAKING PROGRESS

Currently, only three states—California, the District of Columbia, and New Jersey—are fully implementing all five effective policies, and no state is making substantial progress toward implementing all six effective strategies.

Seven states have not fully implemented any effective policies—Florida, Georgia, Mississippi, North Carolina, South Carolina, Texas, and Wyoming—and 15 states have not made substantial progress toward implementing any of the effective strategies.

Over time, we will track every state's adoption and implementation of these policies and strategies, with the goal of each

Three states—Florida, Mississippi, and Wyoming—have not fully implemented any of the 11 effective solutions that strengthen the prenatal-to-3 system of care.



Some states have adopted a policy, but they have not fully implemented it, or they do not provide the level of benefit, indicated by the evidence reviews, necessary to impact the PN-3 goal. Additionally, many states have implemented aspects of the effective strategies, but states are assessed relative to one another on making substantial progress.

Policy Variation Across States

Have states adopted and fully implemented the effective policies?

EFFECTIVE POLICIES

Expanded Income Eligibility for Health Insurance

37 states have adopted and fully implemented the Medicaid expansion under the Affordable Care Act (ACA) that includes coverage for most adults with incomes up to 138% of the federal poverty level (FPL).



Sources: As of October 1, 2020. Medicaid state plan amendments (SPAs) and Section 1115 waivers.

Paid Family Leave

5 states have adopted and fully implemented a paid family leave program of a minimum of 6 weeks following the birth, adoption, or the placement of a child into foster care.



Sources: As of October 1, 2020. State statutes and legislation on paid family leave.

Reduced Administrative Burden for SNAP

32 states have a median recertification interval that is 12 months or longer among households with SNAP-eligible children under age 18.



Sources: As of 2018. United States Department of Agriculture (USDA) Fiscal Year 2018 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel.

State Minimum Wage

19 states have adopted and fully implemented a minimum wage of \$10 or greater.



Sources: As of October 1, 2020. State labor statutes and state labor department websites.

Policy Variation Across States (continued)

Have states adopted and fully implemented the effective policies?

EFFECTIVE POLICIES

State Earned Income Tax Credit

18 states have adopted and fully implemented a refundable EITC of at least 10% of the federal EITC for all eligible families with any children under age 3.



Note: Some states in the "no" category for Policy Variation Across States have adopted a policy, but they have not fully implemented it, or they do not provide the level of benefit, indicated by the evidence reviews, necessary to impact the PN-3 goal. For additional information see<u>pn3policy.org</u>.

Sources: As of October 1, 2020. State income tax statutes.



Strategy Variation Across States

Have states made substantial progress relative to other states toward implementing the effective strategies?

EFFECTIVE STRATEGIES

Comprehensive Screening and Referral Programs

8 states have both evidence-based comprehensive screening and referral programs: Family Connects and Healthy Steps.



Sources: As of June 12, 2020. Family Connects and Healthy Steps national websites.

Group Prenatal Care

10 states support the implementation of group prenatal care financially through enhanced reimbursements for group prenatal care providers.



Sources: As of June 8, 2020. State health department websites and proposed and passed state legislation.

Child Care Subsidies

1 state's base reimbursement rates (for infants and toddlers in center-based care and family child care) meet the federally recommended 75th percentile using a recent market rate survey.



Sources: As of July, 12020. State children and families' department websites and state market rate surveys.

Evidence-Based Home Visiting Programs

23 states have supplemented federal funding, and the estimated percentage of eligible children served by home visiting is at or above the median state value (7.3%).



Sources: As of June 11, 2020. National Home Visiting Resource Center. Home Visiting Evidence of Effectiveness. National Conferences of State Legislatures (NCSL) FY19 state budget survey. State statutes and adopted FY19 budgets. 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS).

Strategy Variation Across States (continued)

Have states made substantial progress relative to other states toward implementing the effective strategies?

EFFECTIVE STRATEGIES

Early Head Start

7 states supplement federal funding, and the estimated percentage of income-eligible children with access to EHS is at or above the median state value (8.9%).



Sources: As of 2020. National Head Start Association report, confirmation emails and phone calls from state EHS experts, 2019 Early Head Start (EHS) Program Information Report (PIR), and 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS).

Early Intervention Services

5 states have moderate or broad criteria to determine eligibility and serve children who are at risk for later delays or disabilities.



Sources: As of June 2020. IDEA Infant and Toddler Coordinators Association 2018, state regulations retrieved from state legal statutes, health department regulations, and Early Intervention program websites.

Note: Many states in the "no" category for Strategy Variation Across States have implemented aspects of the effective strategies, but states are assessed relative to one another on making substantial progress. For additional information see <u>pn3policy.org</u>.

Policy Adoption and Implementation Take Time

Policy adoption does not typically happen quickly. States may introduce legislation several times before adopting a policy and take even more time to fully implement it. We tracked states' progress toward fully implementing each of the five effective policies and making substantial progress relative to other states toward implementing the six effective strategies. This information shows states where they stand relative to other states with regard to building an effective and equitable PN-3 system of care, and over time, this information also will demonstrate the progress states have made. The figures below show the progress states have made to date toward adopting and fully implementing each effective policy and toward making substantial progress relative to other states in implementing the effective strategies.

More detailed information on each of the policies and strategies is available in the Policy Profile section of this Roadmap and in the Prenatal-to-3 Policy Clearinghouse at <u>pn3policy.org</u>.

Have states adopted and fully implemented the effective policies?

		N	0		SO	ME PROGRE	SS	YES			
Policies	0	1	2	3	4	5	6	7	8	9	10
Expanded Income Eligibility for Health Insurance	5 states	4 states		3 states			2 states	3 states	4 states	28 states	2 states
Reduced Administrative Burden for SNAP	12 states					7 states		1 state	10 states	21 states	
Paid Family Leave		29 states		1 state	12 states	1 state	3 states				5 states
State Minimum Wage	9 states	2 states		10 states	3 states	4 states	4 states		1 state		18 states
State Earned Income Tax Credit	9 states	8 states		2 states	3 states	6 states	5 states	1 state	5 states		12 states

Have states made substantial progress relative to other states toward implementing the effective strategies?

	LITTLE	TO NO PRO	GRESS	so	OME PROGRE	ss	SUBSTANTIAL PROGRESS				
Strategies	1	2	3	4	5	6	7	8	9	10	
Comprehensive Screening and Referral Programs	21 states		5 states		14 states	3 states	7 states		1 state		
Child Care Subsidies	21 states		20 states		9 states		1 state				
Group Prenatal Care	16 states		11 states	1 state	9 states	4 states	2 states		8 states		
Evidence-Based Home Visiting	10 states		3 states		15 states		18 states		5 states		
Early Head Start	23 states		15 states	4 states	2 states		7 states				
Early Intervention Services	16 states			14 states		16 states	4 states		1 state		

Benefits and Services Vary Considerably Across States

The Policy Profile section of this Roadmap provides additional information on the variation across states in the generosity of the benefit levels associated with each policy and strategy, as well as variation in the percentage of eligible families who are served. Generosity and the percentage of eligible families served vary considerably, such that families with similar needs may receive substantially different services based on where they live.

For example, in Texas, parents must have annual incomes that are at or below 17% of the federal poverty level (FPL) to be eligible for Medicaid, whereas in the District of Columbia, parents with incomes up to 221% of the FPL qualify for Medicaid. This difference in generosity is linked to a large disparity in the percentage of low-income women of childbearing age who have access to health care; in Texas, nearly half (47.7%) of low-income women lack health insurance, compared to only 6.4% of low-income women who lack health insurance in the District of Columbia.

Early Intervention (EI) services provide another example of large variation in benefits and services across states. States differ considerably in the criteria they use to determine whether an infant or toddler is eligible for these important services that are designed to address developmental delays and disabilities. The percentage of children under age 3 who receive EI services also varies widely across states, from a low of 0.9% in Arkansas to a high of 10.1% in Massachusetts.

OUTCOMES VARY FOR INFANTS AND TODDLERS ACROSS STATES

The purpose of states' implementing effective PN-3 solutions is to improve the wellbeing of infants, toddlers, and their parents, and to reduce long-standing disparities in outcomes by race and ethnicity. This Roadmap provides information on how children and families are faring on 20 outcome measures that depict states' progress toward achieving each PN-3 goal. Each of the outcome measures is intentionally calculated in the negative direction to demonstrate where states have room for improvement and to help states prioritize PN-3 policy goals for which progress is lagging.

The results show that there is wide variation across states in the wellbeing of children and families. For example, 14.2% of babies are born preterm (prior to 37 weeks of gestation) in Mississippi (the lowest ranked state), compared to 7.8% of babies in Oregon (the highest ranked state). Similarly, the proportion of children under age 3 who live in poverty in Mississippi (the worst state on this outcome) is 30.8% compared to 10.4% in Utah (the best state on this outcome); but even in the best state, 1 in 10 children lives in poverty. Maternal mental health varies as well, with 10.2% of children under age 3 in Vermont (the worst state) living with a mother who has poor mental health compared to only 1.2% in New Jersey (the best state).

Racial and Ethnic Disparities in Outcomes Persist

In addition to PN-3 outcomes varying across states, the outcomes also differ substantially by race and ethnicity. The sample sizes are too small in most national data sets to measure racial and ethnic differences on each outcome within a state, but state-level variation in outcomes mirrors the racial and ethnic disparities revealed at the US level. On measure after measure, children of color are exposed to greater adversity and experience poorer wellbeing than their White counterparts. These gaps reflect state policy choices and long-standing discrimination, and states should strive to eradicate these differences.



Explore your state's interactive data at **pn3policy.org/interactive**.

Prenatal-to-3 Outcomes to Measure Impact

Goal: Access to Needed Services

Lack of Health Insurance

% low-income women of childbearing age who do NOT have any health insurance coverage



Lack of Access to SNAP

% eligible families with children <18 NOT receiving SNAP



Lack of Developmental Screenings

% children <3 NOT receiving developmental screenings



Goal: Parents' Ability to Work

Insecure Parental Employment

% children <3 in families in which NO parent has regular, full-time employment



A Note on Data Quality:

For the majority of measures, it is not possible to present differences by race and ethnicity at the state level due to small sample sizes and subsequent poor data accuracy and quality. For additional information regarding state-level variation in outcomes, calculation details, data quality, and source data please refer to the Methods and Sources section of pn3policy.org.

Goal: Sufficient Household Resources

Child Poverty

% children <3 living in poverty



Crowded Housing

% children <3 living in crowded households



Food Insecurity

% households with at least one child <3 reporting low/very low child food security



Goal: Healthy and Equitable Births

Preterm Births



Low Birthweight % babies born low birthweight (<5.5 pounds) 8.3%



Infant Mortality Rate

of infant deaths per 1,000 births



Goal: Parental Health and Emotional Wellbeing

Poor Maternal Mental Health

% children <3 whose mother reports fair or poor mental/emotional health



Low Parenting Support

% children <3 whose parent lacks emotional parenting support



Goal: Nurturing and Responsive Child-Parent Relationships

Lack of Daily Reading

% children <3 not read to daily



Lack of Daily Nurturing Behaviors

% children <3 not nurtured daily



Parenting Stress

% children <3 whose parent reports they are not coping very well with parenting demands



STRENGTHENING THE PRENATAL-TO-3 SYSTEM OF CARE IN ALL STATES



Goal: Optimal Child Health and Development



Use This Roadmap to Know Where You Are and Where You Need to Go

The outcome measures help states prioritize which PN-3 goal state leaders should target first and, therefore, which effective policy or strategy they should implement to improve the corresponding outcomes. The outcome measures may be lagging even within states that have adopted or implemented the effective solutions, because the level of benefits the state offers is less generous than other states or a large portion of families who are eligible for the benefit are not receiving it.

If your state is lagging on a particular outcome or PN-3 goal, answering the following questions will help to build a stronger and more equitable prenatal-to-3 system of care in your state:

- Has my state adopted and fully implemented the effective policies and effective strategies that positively impact the PN-3 goal?
- If not, what progress has my state made toward adoption and implementation?
- Are my state's benefits for the policy or strategy as generous as those in other states?
- Are all eligible families in my state receiving the benefits they need?

The Prenatal-to-3 State Policy Roadmap helps your state answer these questions and more. For additional information, see <u>pn3policy.org</u>.

MOVING FORWARD

This Roadmap provides baseline information to states to help state leaders understand not only how they are doing, but how they can do better. The Prenatal-to-3 Policy Impact Center at the University of Texas at Austin will update this Roadmap annually to track state progress on policy adoption, generosity, and implementation. We also will measure improvements in the overall wellbeing of infants, toddlers, and parents in each state, in addition to whether states are closing racial and ethnic gaps in wellbeing. In the wake of the COVID-19 pandemic, national data that measure the health and wellbeing of children and families is extremely important, but unfortunately, due to time lags in data collection and availability, we will not have a clear picture of the impact of the pandemic on babies and parents for years to come. What can be measured in the short term is states' policy reactions to the crisis, and how they implement effective policies to help build strong and equitable prenatal-to-3 systems of care.

The next Roadmap also will dive deeper into understanding the return on investment of each policy and strategy. Lawmakers not only want to know if a policy works, but also how much it costs and how to pay for it. Some of this information is provided in this Roadmap, and more is provided in the Prenatal-to-3 Policy Clearinghouse at pn3policy.org, but we plan to conduct more rigorous analyses of the costs and measurable benefits associated with each effective solution, to answer these questions more fully.

As stated previously, the science is clear with regard to the conditions necessary to help children thrive. Previously, states lacked clear guidance on which effective policies foster those conditions, and they didn't know where to start. Although the evidence base will continue to expand over time, the solutions are clearer, and states can use this Prenatal-to-3 State Policy Roadmap to get to work building a solid prenatal-to-3 system of care.



APPENDICES

References and Notes: Strong Causal Studies

Expanded Income Eligibility for Health Insurance Strong Causal Studies

- A. Brown, C. C., Moore, J. E., Felix, H. C., Stewart, M. K., Bird, T. M., Lowery, C. L., & Tilford, J. M. (2019). Association of state Medicaid expansion status with low birth weight and preterm birth. *JAMA*, *321*(16), 1598–1609. https://doi.org/10.1001/jama.2019.3678
- B. Clapp, M. A., James, K. E., Kaimal, A. J., & Daw, J. R. (2018). Preconception coverage before and after the Affordable Care Act Medicaid expansions. *Obstetrics & Gynecology*, *132*(6), 1394–1400. https://doi.org/10.1097/AOG.00000000002972
- C. Johnston, E. M., Strahan, A. E., Joski, P., Dunlop, A. L., & Adams, E. K. (2018). Impacts of the Affordable Care Act's Medicaid expansion on women of reproductive age: Differences by parental status and state policies. *Women's Health Issues*, 28(2), 122– 129. https://doi.org/10.1016/j.whi.2017.11.005
- D. Adams, E. K., Dunlop, A. L., Strahan, A. E., Joski, P., Applegate, M., & Sierra, E. (2018). Prepregnancy insurance and timely prenatal care for Medicaid births: Before and after the Affordable Care Act in Ohio. *Journal of Women's Health*, 28(5), 654–664. https://doi. org/10.1089/jwh.2017.6871
- E. Clapp, M. A., James, K. E., Kaimal, A. J., Sommers, B. D., & Daw, J. R. (2019). Association of Medicaid expansion with coverage and access to care for pregnant women. *Obstetrics & Gynecology*, 134(5), 1066–1074. https://doi.org/10.1097/ AOG.0000000000003501
- F. Baicker, K., Taubman, S. L., Allen, H. L., Bernstein, M., Gruber, J. H., Newhouse, J. P., Schneider, E. C., Wright, B. J., Zaslavsky, A. M., & Finkelstein, A. N. (2013). The Oregon experiment — Effects of Medicaid on clinical outcomes. *New England Journal of Medicine*, 368(18), 1713–1722. https://doi.org/10.1056/NEJMsa1212321
- G. Finkelstein, A., Taubman, S., Wright, B., Bernstein, M., Gruber, J., Newhouse, J. P., Allen, H., Baicker, K., & Oregon Health Study Group. (2012). The Oregon health insurance experiment: Evidence from the first year. *The Quarterly Journal of Economics*, 127(3), 1057–1106. https://doi.org/10.1093/qje/qjs020
- H. Margerison, C. E., MacCallum, C. L., Chen, J., Zamani-Hank, Y., & Kaestner, R. (2020). Impacts of Medicaid expansion on health among women of reproductive age. *American Journal of Preventive Medicine*, 58(1), 1–11. https://doi.org/10.1016/j. amepre.2019.08.019
- I. Gordon, S. H., Sommers, B. D., Wilson, I. B., & Trivedi, A. N. (2020). Effects of Medicaid expansion on postpartum coverage and outpatient utilization. *Health Affairs*, *39*(1), 77–84. https://doi.org/10.1377/hlthaff.2019.00547
- J. Eliason, E. L. (2020). Adoption of Medicaid expansion is associated with lower maternal mortality. *Women's Health Issues*. https://doi.org/10.1016/j.whi.2020.01.005
- K. Miller, S., & Wherry, L. R. (2019). Four years later: Insurance coverage and access to care continue to diverge between ACA Medicaid expansion and non-expansion states. AEA Papers and Proceedings, 109, 327–333. https://doi.org/10.1257/ pandp.20191046
- L. McMorrow, S., Gates, J. A., Long, S. K., & Kenney, G. M. (2017). Medicaid expansion increased coverage, improved affordability, and reduced psychological distress for low-income parents. *Health Affairs*, *36*(5), 808–818. http://dx.doi.org.ezproxy.lib.utexas. edu/10.1377/hlthaff.2016.1650
- M. Abramowitz, J. (2020). The effect of ACA state Medicaid expansions on medical out-of-pocket expenditures. *Medical Care Research and Review*, 77(1), 19–33. https://doi.org/10.1177/1077558718768895
- N. Caswell, K. J., & Waidmann, T. A. (2019). The Affordable Care Act Medicaid expansions and personal finance. *Medical Care Research and Review*, 76(5), 538–571. https://doi.org/10.1177/1077558717725164
- O. Allen, H., Swanson, A., Wang, J., & Gross, T. (2017). Early Medicaid expansion associated with reduced payday borrowing in California. *Health Affairs*, 36(10), 1769–1776. https://doi.org/10.1377/hlthaff.2017.0369
- P. Allen, H. L., Eliason, E., Zewde, N., & Gross, T. (2019). Can Medicaid expansion prevent housing evictions? *Health Affairs*, 38(9), 1451–1457. https://doi.org/10.1377/hlthaff.2018.05071

REFERENCES AND NOTES: STRONG CAUSAL STUDIES

- Q. Golberstein, E., Gonzales, G., & Sommers, B. D. (2015). California's early ACA expansion increased coverage and reduced out-of-pocket spending for the state's low-income population. *Health Affairs*, 34(10), 1688–1694. https://doi.org/10.1377/ hlthaff.2015.0290
- R. Miller, S., Hu, L., Kaestner, R., Mazumder, B., & Wong, A. (2018). *The ACA Medicaid expansion in Michigan and financial health* (No. w25053). National Bureau of Economic Research. https://doi.org/10.3386/w25053
- S. Levy, H., Buchmueller, T., & Nikpay, S. (2019). The impact of Medicaid expansion on household consumption. *Eastern Economic Journal*, 45(1), 34–57. https://doi.org/10.1057/s41302-018-0124-7
- T. Zewde, N., Eliason, E., Allen, H., & Gross, T. (2019). The effects of the ACA Medicaid expansion on nationwide home evictions and eviction-court initiations: United States, 2000–2016. *American Journal of Public Health*, 109(10), 1379–1383. https://doi. org/10.2105/AJPH.2019.305230
- U. Brown, E. C. B., Garrison, M. M., Bao, H., Qu, P., Jenny, C., & Rowhani-Rahbar, A. (2019). Assessment of rates of child maltreatment in states with Medicaid expansion vs states without Medicaid expansion. JAMA Network Open, 2(6), e195529– e195529. https://doi.org/10.1001/jamanetworkopen.2019.5529
- V. Wiggins, A., Karaye, I. M., & Horney, J. A. (2020). Medicaid expansion and infant mortality, revisited: A difference-in-differences analysis. *Health Services Research*, *OO*(1-6). https://doi.org/10.1111/1475-6773.13286
- W. Boudreaux, M. H., Dagher, R. K., & Lorch, S. A. (2018). The association of health reform and infant health: evidence from Massachusetts. *Health Services Research*, 53(4), 2406–2425. https://doi.org/10.1111/1475-6773.12779

Reduced Administrative Burden for SNAP Strong Causal Studies

- A. Dickert-Conlin, S., Fitzpatrick, K., Tiehen, L., & Stacy, B. (2019). The downs and ups of the SNAP caseload: What matters? [Unpublished update to published 2016 manuscript.] U.S. Dept. of Agriculture, Michigan State University.
- B. Ganong, P., & Liebman, J. B. (2018). The decline, rebound, and further rise in SNAP enrollment: Disentangling business cycle fluctuations and policy changes. *American Economic Journal: Economic Policy*, *10*(4), 153–176. https://doi.org/10.1257/pol.20140016
- C. Gray, C. (2019). Leaving benefits on the table: Evidence from SNAP. *Journal of Public Economics*, 179, 1–15. https://doi. org/10.1016/j.jpubeco.2019.104054
- D. Pomerleau, K. (2013). Just a phone call away: The association between state SNAP caseloads and the waiver of the face-to-face certification interview. Georgetown University Master's Thesis. https://pdfs.semanticscholar.org/4aae/ff187c3975dfb0553eaf79066d3bb889a4eb.pdf?_ga=2.97474265.715027600.1580333108-254500070.1580333108
- E. Ratcliffe, C., McKernan, S., & Finegold, K. (2008). Effects of food stamp and TANF policies on food stamp receipt. *Social Service Review*, 82(2), 291–334. https://doi.org/10.1086/589707
- F. Ribar, D. C., Edelhoch, M., & Liu, Q. (2008). Watching the clocks: The role of food stamp recertilication and TANF time limits in caseload dynamics. *The Journal of Human Resources, 43(1),* 208–239. https://doi.org/10.1353/jhr.2008.0018
- G. Mabli, J., & Ferrerosa, C. (2010). Supplemental Nutrition Assistance Program caseload trends and changes in measures of unemployment, labor underutilization, and program policy from 2000 to 2008. Mathematica Policy Research, Inc. https://www. mathematica.org/our-publications-and-findings/publications/supplemental-nutrition-assistance-program-caseload-trends-andchanges-in-measures-of-unemployment-labor-underutilization-and-program-policy-from-2000-to-2008
- H. Ziliak, J. P. (2016). Why are so many Americans on food stamps? The role of the economy, policy, and demographics. In Ziliak, J. P., Bartfeld, J., Gundersen, C., Smeeding, T. (Eds.), SNAP matters: How food stamps affect health and well-being (pp. 18-48). Stanford University Press.
- Hanratty, M. J. (2006). Has the food stamp program become more accessible? Impacts of recent changes in reporting requirements and asset eligibility limits. *Journal of Policy Analysis and Management*, 25(3), 603–621. https://doi.org/10.1002/ pam.20193
- J. Kabbani, N. S., & Wilde, P. E. (2003). Short recertification periods in the U.S. food stamp program. *The Journal of Human Resources*, *38*, 1112. https://doi.org/10.2307/3558983
- K. Klerman, J. A., & Danielson, C. (2011). The transformation of the Supplemental Nutrition Assistance Program. *Journal of Policy Analysis and Management*, 30(4), 863–888. https://doi.org/10.1002/pam.20601
- L. Homonoff, T., & Somerville, J. (2019). *Program recertification costs: Evidence from SNAP*. New York University Wagner School of Public Service. https://wagner.nyu.edu/files/faculty/publications/Homonoff%20%26%20Somerville%20-%20April%20 2019_0_0.pdf

REFERENCES AND NOTES: STRONG CAUSAL STUDIES

Paid Family Leave Strong Causal Studies

- A. Bailey, M., Byker, T., Patel, E., Ramnath, S. (2019). The long-term effects of California's 2004 paid family leave act on women's careers: Evidence from U.S. tax data (No. w26416). National Bureau of Economic Research. https://www.nber.org/papers/w26416. pdf
- B. Baum, C. & Ruhm, C. (2016). The effects of paid leave in California on labor market outcomes. *Journal of Policy Analysis and Management*, 35(2), 333–356. https://onlinelibrary.wiley.com/doi/epdf/10.1002/pam.21894
- C. Bullinger, L.R. (2019). The effect of paid family leave on infant and parental health in the United States. *Journal of Health Economics*, 66, 101–116. https://doi.org/10.1016/j.jhealeco.2019.05.006
- D. Byker, T. S. (2016). Paid parental leave laws in the United States: Does short-duration leave affect women's labor-force attachment? American Economic Review, *106*(2), 242–246.
- E. Choudhury, A.R. & Polachek, S.W. (2019). *The impact of paid family leave on the timing of infant vaccinations* (No. 12483). IZA Institute of Labor Economics. https://www.iza.org/publications/dp/12483/the-impact-of-paid-family-leave-on-the-timing-of-infant-vaccinations
- F. Das, T. & Polachek, S. W. (2015). Unanticipated effects of California's paid family leave program. *Contemporary Economic Policy*, 33(4), 619–635. https://doi.org/10.1111/coep.12102
- G. Hamad, R., Mordrek, S. & White, J.S. (2019). Paid family leave effects on breastfeeding: A quasi-experimental study of US policies. *American Journal of Public Health*, *109*(1), 164–166. https://doi.org/10.2105/AJPH.2018.304693
- H. Huang, R. & Yang, M. (2015). Paid maternity leave and breastfeeding practice before and after California's implementation of the nation's first paid family leave program. *Economics and Human Biology*, *16*, 45–59. https://doi.org/10.1016/j.ehb.2013.12.009
- Klevens, J., Luo, F., Xu, L., Peterson, C., & Latzman, N. E. (2016). Paid family leave's effect on hospital admissions for pediatric abusive head trauma. *Journal of the International Society for Child and Adolescent Injury Prevention*, 22(6), 442–445. http://dx.doi. org/10.1136/injuryprev-2015-041702
- J. Lichtman-Sadot, S. and Bell, N. P. (2017). Child health in elementary school following California's paid family leave program. Journal of Policy Analysis and Management, 36, 790–827. https://doi.org/10.1002/pam.22012
- K. Pac, J., Bartel, A., Ruhm, C. & Waldfogel, J. (2019). Paid family leave and breastfeeding: Evidence from California (No. w25784). National Bureau of Economic Research. https://www.nber.org/papers/w25784.
- L. Pihl, A. & Basso, G. (2018). Did California paid family leave impact infant health? *Journal of Policy Analysis and Management*, 38(1), 155–180. https://doi.org/10.1002/pam.22101
- M. Stanczyk, A.B. (2019). Does paid family leave improve household economic security following a birth? Evidence from California. *Social Service Review*, 93(2), 262–304. https://doi.org/10.1086/703138
- N. Rossin-Slater, M., Ruhm, C., Waldfogel, J. (2013). The effects of California's paid family leave program on mothers' leave-taking and subsequent labor market outcomes. *Journal of Policy Analysis and Management*, 32(2), 224–245. https://doi.org/10.1002/ pam.21676
- O. Bana, S., Bedard, K., Rossin-Slater, M. (2018). The impacts of paid family leave benefits: Regression kink evidence from California administrative data (No. w24438). National Bureau of Economic Research. https://www.nber.org/papers/w24438.pdf
- P. Lee, B., Modrek, S., White, J., Batra, A., Collin, D., Hamad, R. (2020). The effect of California's paid family leave policy on parent health: A quasi-experimental study. *Social Science & Medicine*, 251, 1–8. https://doi.org/10.1016/j.socscimed.2020.112915
- Q. Jones, K., and Wilcher, B. (2019). *Reducing maternal labor market detachment: A role for paid family leave.* American University Working Paper. https://ideas.repec.org/p/amu/wpaper/2019-07.html
- R. Bartel, A. P., Rossin-Slater, M., Ruhm, C. J., Stearns, J., & Waldfogel, J. (2018). Paid family leave, fathers' leave-taking and leavesharing in dual earner households. Journal of Policy Analysis and Management, *37*(1), 10–37. https://doi.org/10.1002/pam.22030

State Minimum Wage Strong Causal Studies

- A. Allegretto, S., Godøy, A., Nadler, C., & Reich, N. (2018). The new wave of local minimum wage policies: Evidence from six cities. Center on Wage and Employment Dynamics, University of California, Berkeley. https://irle.berkeley.edu/files/2018/09/The-New-Wave-of-Local-Minimum-Wage-Policies.pdf
- B. Bullinger, L. (2017). The effect of minimum wages on adolescent fertility: A nationwide analysis. *American Journal of Public Health*, 107(3), 447-52. https://doi.org/10.2105/AJPH.2016.303604
- C. Card, D. & Krueger, A. (1994). Minimum wages and employment: A case study of the fast-food industry in New Jersey and Pennsylvania. *American Economic Review*, 84(4), 772-793. https://www.jstor.org/stable/2677856
- D. Cengiz, D., Dube, A., Lindner, A., & Zipperer, B. (2019). The effect of minimum wages on low-wage jobs: Evidence from the United States using a bunching estimator (No. w25434). National Bureau of Economic Research. https://www.nber.org/papers/w25434
- E. Dube, A. (2019). Minimum wages and the distribution of family incomes. *American Economic Journal*, 11(4), 268-304. https://doi. org/10.1257/app.20170085
- F. Dube, A., Lester, W., & Reich, M. (2010). Minimum wage effects across state borders: Estimates using contiguous counties. *The Review of Economics and Statistics*, 92(4), 945-964. https://www.jstor.org/stable/40985804
- G. Godøy, A., & Reich, M. (July 2019). *Minimum wage effects in low-wage areas*. Institute for Research on Labor and Employment, University of California, Berkeley. https://irle.berkeley.edu/minimum-wage-effects-in-low-wage-areas/
- H. Jalali, A. (2018). The minimum wage and infant mortality. University of Utah, Department of Economics. https://dx.doi.org/10.2139/ ssrn.3308213
- I. Jardim, E., Long, M., Plotnick, R., van Wegen, E., Vigdor, J., & Wething, H. (2018). *Minimum wage increases, wages, and low-wage employment: Evidence from Seattle* (No. 23532). National Bureau of Economic Research. https://www.nber.org/papers/w23532
- J. Komro, K., Livingston, M., Markowitz, S., & Wagenaar, A. (2016). The effect of an increased minimum wage on infant mortality and birth weight. *American Journal of Public Health*, 106(8), 1514-16. https://doi.org/10.2105/AJPH.2016.303268
- K. Neumark, D., & Wascher, W. (2011). Does a higher minimum wage enhance the effectiveness of the earned income tax credit? Industrial and Labor Relations Review, 64(4), 712-746. https://doi.org/10.1177%2F001979391106400405
- L. Raissian, K.M., & Bullinger, L.R. (2017). Money matters: Does the minimum wage affect child maltreatment rates? *Children and Youth Services Review*, 72, 60-70. https://doi.org/10.1016/j.childyouth.2016.09.033
- M. Reich, M., Montialoux, C., Allegretto, S., Jacobs, K., Bernhardt, A., & Thomason, S. (2016). The effects of a \$15 minimum wage by 2019 in San Jose and Santa Clara County. Center on Wage and Employment Dynamics, University of California, Berkeley. https:// www.cupertino.org/home/showdocument?id=11886
- N. Agarwal, S., Ambrose, B., & Diop., M. (2019). Do minimum wage increases benefit intended households? Evidence from the performance of residential leases. University of Southern California, Pennsylvania State University, and National University of Singapore. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3283913
- O. Sabia, J. & Nielsen, R. (2015). Minimum wages, poverty, and material hardship: New evidence from the SIPP. *Review of Economics of the Household*, *13*(1), 95-134. https://doi.org/10.1007/s11150-012-9171-8
- P. Tsao, T., Konty, K., Van Wye, G., Barbot, O., Hadler, J., Linos, N., & Bassett, M. (2016). Estimating potential reductions in premature mortality in New York City from raising the minimum wage to \$15. American Journal of Public Health, 106(6), 1036-41. https://ajph. aphapublications.org/doi/abs/10.2105/AJPH.2016.303188
- Q. Wehby, G., Dave, D., & Kaestner, R. (2018). *Effects of the minimum wage on infant health* (No. w22373). National Bureau of Economic Research. https://www.nber.org/papers/w22373
- R. Wehby, G., Kaestner, R., Lyu, W., & Dave, D. (2020). *Effects of the minimum wage on child health* (No. w26691). National Bureau of Economic Research. https://www.nber.org/papers/w26691.pdf
- S. Dow, W., Godøy, A., Lowenstein, C., & Reich, M. (2019). *Can economic policies reduce deaths of despair?* (No. w25787). National Bureau of Economic Research. https://www.nber.org/papers/w25787
- T. Kaufman, J., Salas-Hernandez, L., Komro, K., & Livingston, M. (2020). Effects of increased minimum wages by unemployment rate on suicide in the U.S.A. *Journal of Epidemiology and Community Health*, 74(3), 1-6. http://dx.doi.org/10.1136/jech-2019-212981
- U. Buszkiewicz, J., Hill, H., & Otten, J. (2020). State minimum wage rates and health in working-age adults using the National Health Interview Survey. American Journal of Epidemiology. https://doi.org/10.1093/aje/kwaa018
- V. Yonezawa, K., Gomez, M., & McLaughlin, E. (2020). Impacts of minimum wage increases in the U.S. retail sector: Full-time versus part-time employment. Cornell University. https://dx.doi.org/10.2139/ssrn.3520915
- W. Cooper, D., Luengo-Prado, M., & Parker, J. (2019). The local aggregate effects of minimum wage increases. *Journal of Money, Credit, and Banking, 52*(1), 5-35. https://doi.org/10.1111/jmcb.12684
- X. Wang, W., Phillips, P., & Su, L. (2019). The heterogeneous effects of the minimum wage on employment across states. *Economics Letters*, 174, 179-185. https://doi.org/10.1016/j.econlet.2018.11.002
- Y. Godøy, A., Reich, M., & Allegretto, S. (2019). Parental labor supply: Evidence from minimum wage changes. University of California, Berkeley, Institute for Research on Labor and Employment. https://irle.berkeley.edu/parental-labor-supply-evidence-fromminimum-wage-changes/
- Z. Averett, S., Smith, J., Wang, Y. (Sept. 2019). *Minimum wages and the health and access to care of immigrants' children*. Institute of Labor Economics, Discussion Paper Series. http://ftp.iza.org/dp12606.pdf

- AA. DeFina, R. (2008). The impact of state minimum wages on child poverty in female-headed families. *Journal of Poverty*, 12(2), 155-174. https://doi.org/10.1080/10875540801973542
- BB. Ibragimov, U., Beane, S., Friedman, S., Komro, K., Edwards, J., Williams, L., Livingston, M., Stall, R., Wingood, G., Cooper, H. (2019). States with higher minimum wages have lower STI rates among women: Results of an ecological study of 66 U.S. metropolitan areas, 2003-2015. PLoS One, 14(10), 1-18.

State Earned Income Tax Credit Strong Causal Studies

- A. Lim, Y. (2009). Can 'refundable' state earned income tax credits explain child poverty in the American states? *Journal of Children* and *Poverty*, 15(1), 39–53. https://doi.org/10.1080/10796120802685415
- B. Strully, K. W., Rehkopf, D. H., & Xuan, Z. (2010). Effects of prenatal poverty on infant health: State earned income tax credits and birth weight. *American Sociological Review*, 75(4), 534–562. https://doi.org/10.1177%2F0003122410374086
- C. Bollinger, C., Gonzalez, L., & Ziliak, J. P. (2009). Welfare reform and the level and composition of income. In J. P. Ziliak (Ed.), Welfare Reform and Its Long-Term Consequences for America's Poor (pp. 59–103). https://doi.org/10.1017/CB09780511605383.004
- D. Jones, L. E., & Michelmore, K. (2018). The impact of the earned income tax credit on household finances. *Journal of Policy Analysis* and Management, 37(3), 521–545. https://doi.org/10.1002/pam.22062
- E. Pilkauskas, N., & Michelmore, K. (2019). The effect of the earned income tax credit on housing and living arrangements. *Demography*, 56(4), 1303–1326. https://doi.org/10.1007/s13524-019-00791-5
- F. Kenkel, D. S., Schmeiser, M. D., & Urban, C. J. (2014). *Is smoking inferior? Evidence from variation in the earned income tax credit* (No. w20097). National Bureau of Economic Research. https://www.nber.org/papers/w20097.pdf
- G. Schmeiser, M. D. (2009). Expanding wallets and waistlines: the impact of family income on the BMI of women and men eligible for the earned income tax credit. *Health Economics*, *18*(11), 1277–1294. https://doi.org/10.1002/hec.1430
- H. Muennig, P. A., Mohit, B., Wu, J., Jia, H., & Rosen, Z. (2016). Cost effectiveness of the earned income tax credit as a health policy investment. *American Journal of Preventive Medicine*, 51(6), 874–881. https://doi.org/10.1016/j.amepre.2016.07.001
- I. Gangopadhyaya, A., Blavin, F., Gates, J., & Braga, B. (2019). Credit where it's due: investigating pathways from EITC expansion to maternal mental health (No. 12233). IZA Institute of Labor Economics. http://ftp.iza.org/dp12233.pdf
- J. Markowitz, S., Komro, K. A., Livingston, M. D., Lenhart, O., & Wagenaar, A. C. (2017). Effects of state-level earned income tax credit laws in the U.S. on maternal health behaviors and infant health outcomes. *Social Science & Medicine*, 194, 67–75. https://doi.org/10.1016/j.socscimed.2017.10.016
- K. Baughman, R. A., & Duchovny, N. (2016). State earned income tax credits and the production of child health: Insurance coverage, utilization, and health status. *National Tax Journal*, 69(1), 103-132. http://dx.doi.org/10.17310/ntj.2016.1.04
- L. Braga, B., Blavin, F., & Gangopadhyaya, A. (2019). *The long-term effects of childhood exposure to the earned income tax credit on health outcomes* (No. 12417). IZA Institute of Labor Economics. http://ftp.iza.org/dp12417.pdf
- M. Biehl, A. M., & Hill, B. (2018). Foster care and the earned income tax credit. *Review of Economics of the Household*, *16*(3), 661–680. https://doi.org/10.1007/s11150-017-9381-1
- N. Paxson, C., & Waldfogel, J. (2003). Welfare reforms, family resources, and child maltreatment. Journal of Policy Analysis and Management, 22(1), 85–113. https://doi.org/10.1002/pam.10097
- O. Klevens, J., Schmidt, B., Luo, F., Xu, L., Ports, K. A., & Lee, R. D. (2017). Effect of the earned income tax credit on hospital admissions for pediatric abusive head trauma, 1995-2013. *Public Health Reports*, 132(4), 505–511. https://doi. org/10.1177/0033354917710905
- P. Hardy, B. L., Muhammad, D., Casey, M. D., & Samudra, R. (2018). EITC expansions, earnings growth, and inequality: Evidence from Washington, DC. University of Kentucky Center for Poverty Research. Discussion Paper Series (1936-9379). http://ukcpr.org/sites/ ukcpr/files/research-pdfs/DP2018-09.pdf
- Q. Wicks-Lim, J., & Arno, P. S. (2017). Improving population health by reducing poverty: New York's earned income tax credit. SSM *Population Health*, *3*, 373–381. https://doi.org/10.1016/j.ssmph.2017.03.006
- R. Rostad, W., Ports, K., Tang, S., & Klevens, J. (2020). Reducing the number of children entering foster care: Effects of state earned income tax credits. *Child Maltreatment*, 1-5. https://journals.sagepub.com/doi/full/10.1177/1077559519900922
- S. Neumark, D., & Shirley, P. (2020). The long-run effects of the earned income tax credit on women's earnings (No. w24114). National Bureau of Economic Research. https://www.nber.org/papers/w24114.pdf
- T. Meyer, B. & Rosenbaum, D. (1999). Welfare, the earned income tax credit, and the labor supply of single mothers (No. w7363). National Bureau of Economic Research. https://www.nber.org/papers/w7363

- U. Wilson, R. (2020). The EITC and employment transitions: Labor force attachment and annual exit. *National Tax Journal*, 73(1), 11-46. https://doi.org/10.17310/ntj.2020.1.01
- V. Hill, B., & Gurley-Calvez, T. (2019). Earned income tax credits and infant health: A local EITC investigation. *National Tax Journal*, 72(3), 617–646. http://dx.doi.org/10.17310/ntj.2019.3.06
- W. Schmeiser, M. (2012). Expanding New York State's earned income tax credit programme: the effect on work, income and poverty. *Applied Economics*, 44, 2035-2050. https://www.tandfonline.com/doi/abs/10.1080/00036846.2011.558478
- X. Cancian, M., & Levinson, A. (2006). Labor supply effects of the earned income tax credit: Evidence from Wisconsin's supplemental benefit for families with three children. *National Tax Journal*, 59(4), 781-800. https://www.jstor.org/ stable/41790358?seq=1#metadata_info_tab_contents
- Y. Kleven, H. (2019). The EITC and the extensive margin: A reappraisal (No. w26405). National Bureau of Economic Research. https:// www.nber.org/papers/w26405.pdf
- Z. Bastian, J. & Jones, M. (2019). Do EITC expansions pay for themselves? Effects on tax revenue and public assistance spending. Rutgers University Working Paper. https://www.aeaweb.org/conference/2020/preliminary/paper/zB4hn9nf
- AA. Lenhart, O. (2019). The effects of state-level earned income tax credits on suicides. *Health Economics*, 28, 1476-1482. https://doi. org/10.1002/hec.3948
- BB. Michelmore, K., & Lopoo, L. (2019). The effects of EITC exposure in childhood on marriage and early childbearing. Maxwell School of Citizenship and Public Affairs, Center for Policy Research, Working Paper Series (215). https://ideas.repec.org/p/max/cprwps/215. html
- CC. Wagenaar, A., Livingston, M., Markowitz, S., & Komro, K. (2019). Effects of changes in earned income tax credit: Time-series analyses of Washington, DC. SSM Population Health, 7, 1-4. https://doi.org/10.1016/j.ssmph.2019.100356
- DD. Stokan, E. (2019). An estimate of the local economic impact of state-level earned income tax credits. *Economic Development Quarterly*, 33(3), 170-186. https://doi.org/10.1177%2F0891242419858412
- EE. Dow, W., Godøy, A., Lowenstein, C., & Reich, M. (2019). Can economic policies reduce deaths of despair? (No. w25787). National Bureau of Economic Research. http://www.nber.org/papers/w25787
- FF. Song, Z. (2019). Long-term health effect of earned income tax credit. SSRN Electronic Journal. https://doi.org/10.2139/ ssrn.3487069
- GG. Neumark, D., & Wascher, W. (2011). Does a higher minimum wage enhance the effectiveness of the earned income tax credit? Industrial and Labor Relations Review, 64(4), 712-746. https://doi.org/10.1177%2F001979391106400405
- HH. Bastian, J., & Michelmore, K. (2018). The long-term impact of the earned income tax credit on children's education and employment outcomes. *Journal of Labor Economics*, 36(4), 1127-1163. http://doi.org/10.1086/697477
- II. Komro, K. A., Markowitz, S., Livingston, M. D., & Wagenaar, A. C. (2019). Effects of state-level earned income tax credit laws on birth outcomes by race and ethnicity. *Health Equity*, 3(1), 61–67. https://doi.org/10.1089/heq.2018.0061Using numbers instead of letters to differentiate these from the strong studies at a glance.
- JJ. Hamad, R. & Rehkopf, D.H. (2016). Poverty and child development: A longitudinal study of the impact of the earned Income tax credit. *American Journal of Epidemiology*, 183(9), 775–84. https://doi.org/10.1093/aje/kwv317.

Comprehensive Screening and Referral Programs Strong Causal Studies

- A. Dodge, K. A., Goodman, W. B., Murphy, R. A., O'Donnell, K., & Sato, J. (2013). Randomized controlled trial of universal postnatal nurse home visiting: Impact on emergency care. *Pediatrics*, 132(Supplement 2), S140–S146. https://doi.org/10.1542/peds.2013-1021M
- B. Dodge, K. A., Goodman, W. B., Murphy, R. A., O'Donnell, K., Sato, J., & Guptill, S. (2014). Implementation and randomized controlled trial evaluation of universal postnatal nurse home visiting. *American Journal of Public Health*, *104 Suppl 1*, S136-143. https://doi.org/10.2105/AJPH.2013.301361
- C. Goodman, W. B., Dodge, K. A., Bai, Y., O'Donnell, K. J., & Murphy, R. A. (2019). Randomized controlled trial of Family Connects: Effects on child emergency medical care from birth to 24 months. *Development and Psychopathology*, 31(5), 1863–1872. https:// doi.org/10.1017/S0954579419000889
- D. Dodge, K. A., Goodman, W. B., Bai, Y., O'Donnell, K., & Murphy, R. A. (2019). Effect of a community agency–administered nurse home visitation program on program use and maternal and infant health outcomes: A randomized clinical trial. *JAMA Network Open*, 2(11), e1914522. https://doi.org/10.1001/jamanetworkopen.2019.14522
- E. Minkovitz, C. (2001). Early effects of the Healthy Steps for Young Children program. *Archives of Pediatrics & Adolescent Medicine*, 155(4), 470. https://doi.org/10.1001/archpedi.155.4.470

- F. Minkovitz, C. S., Hughart, N., Strobino, D., Scharfstein, D., Grason, H., Hou, W., Miller, T., Bishai, D., Augustyn, M., McLearn, K. T., & Guyer, B. (2003). A practice-based intervention to enhance quality of care in the first 3 years of life: The Healthy Steps for Young Children Program. JAMA, 290(23), 3081. https://doi.org/10.1001/jama.290.23.3081
- G. Minkovitz, C. S., Strobino, D., Mistry, K. B., Scharfstein, D. O., Grason, H., Hou, W., Ialongo, N., & Guyer, B. (2007). Healthy Steps for Young Children: Sustained results at 5.5 Years. *Pediatrics*, *120*(3), e658–e668. https://doi.org/10.1542/peds.2006-1205
- H. Caughy, M. O., Miller, T. L., Genevro, J. L., Huang, K.-Y., & Nautiyal, C. (2003). The effects of Healthy Steps on discipline strategies of parents of young children. *Journal of Applied Developmental Psychology*, 24(5), 517–534. https://doi.org/10.1016/j. appdev.2003.08.004
- Caughy, M. O., Huang, K.-Y., Miller, T., & Genevro, J. L. (2004). The effects of the Healthy Steps for Young Children Program: Results from observations of parenting and child development. *Early Childhood Research Quarterly*, 19(4), 611–630. https://doi. org/10.1016/j.ecresq.2004.10.004

Child Care Subsidies Strong Causal Studies

- A. Enchautegui, M. E., Chien, N., & Burgess, K. (2016). Effects of the CCDF subsidy program on the employment outcomes of low income mothers. U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. https:// aspe.hhs.gov/system/files/pdf/253961/EffectsCCSubsidiesMaternalLFPTechnical.pdf
- B. Ros Pilarz, A. (2018). Child care subsidy programs and child care choices: Effects on the number and type of arrangements. *Children and Youth Services Review*, *95*, 160–173. https://doi.org/10.1016/j.childyouth.2018.10.013
- C. Schochet, O. N., & Johnson, A. D. (2019). The impact of child care subsidies on mothers' education outcomes. *Journal of Family and Economic Issues*, 40(3), 367–389. https://doi.org/10.1007/s10834-019-09628-0
- D. Washbrook, E., Ruhm, C. J., Waldfogel, J., & Han, W.-J. (2011). Public policies, women's employment after childbearing, and child well-being. *The B.E. Journal of Economic Analysis & Policy*, *11*(1). https://doi.org/10.2202/1935-1682.2938.
- E. Danziger, S., Ananat, E.O., Browning, K. (2004). Childcare subsidies and the transition from welfare to work. *Family Relations*, 53(2), 219-228. https://www.jstor.org/stable/3700265
- F. Lemke, R., Witte, A., Queralt, M., Witt, R. (2000). *Child care and the welfare to work transition.* National Bureau of Economic Research Working Papers (No. 7583). http://www.nber.org/papers/w7583
- G. Witte, A., Queralt, M. (2004). An examination of the child care choices of low-income families receiving child care subsidies. Wellesley College Department of Economics and National Bureau of Economic Research. http://academics.wellesley.edu/Economics/partner/Child%20Care%20Choices4_02.pdf
- H. Griffen, A. S. (2019). Evaluating the effects of childcare policies on children's cognitive development and maternal labor supply. *Journal of Human Resources, 54*(3), 604-655. https://doi.org/10.3368/jhr.54.3.0315.6988r1
- I. Krafft, C., Davis, E. E., & Tout, K. (2017). Child care subsidies and the stability and quality of child care arrangements. *Early Childhood Research Quarterly*, *39*, 14–34. https://doi.org/10.1016/j.ecresq.2016.12.002

Group Prenatal Care Strong Causal Studies

- A. Crockett, A.H., Heberlein, E.C., Smith, J.C., Ozluk, P., Covington-Kolb, S., & Willis, C. (2019). Effects of a multi-site expansion of group prenatal care on birth outcomes. *Maternal and Child Health Journal*, 23(10), 1424-1433. dx.doi.org/10.1007/s10995-019-02795-4
- B. Cunningham, S.D., Lewis, J.B., Shebl, F.M., Boyd, L.M., Robinson, M.A., Grilo, S.A., Lewis, S.M., Pruett, A.L., & Ickovics, J.R. (2019). Group prenatal care reduces risk of preterm birth and low birth weight: A matched cohort study. *Journal of Women's Health, 28*(1), 17-22. dx.doi.org/10.1089/jwh.2017.6817
- C. Felder, J.N., Epel, E., Lewis, J.B., Cunningham, S.D., Tobin, J.N., Rising, S.S., Thomas, M., & Ickovics, J.R. (2017). Depressive symptoms and gestational length among pregnant adolescents: Cluster randomized control trial of Centering Pregnancy® plus group prenatal care. *Journal of Consulting and Clinical Psychology*, *85*(6), 574-584. dx.doi.org/10.1037/ccp0000191
- D. Ford, K., Weglicki, L., Kershaw, T., Schram, C., Hoyer, P.J., & Jacobson, M.L. (2002). Effects of a prenatal care intervention for adolescent mothers on birth weight, repeat pregnancy, and educational outcomes at one year postpartum. *The Journal of Perinatal Education*, *11*(1), 35-38. dx.doi.org/10.1624/105812402X88588
- E. Gareau, S., Lòpez-De Fede, A., Loudermilk, B.L., Cummings, T.H., Hardin, J.W., Picklesimer, A.H., Crouch, E., & Covington-Kolb, S. (2016). Group prenatal care results in Medicaid savings with better outcomes: A propensity score analysis of CenteringPregnancy participation in South Carolina. *Maternal and Child Health Journal*, 20(7), 1384-1393. dx.doi.org/10.1007/s10995-016-1935-y

- F. Hill, I., Dubay, L., Courtot, B., Benatar, S., Garrett, B., Blavin, F., Howell, E., Johnston, E., Allen, E., Thornburg, S., Markell, J., Morgan, J., Silow-Carroll, S., Bitterman, J., Rodin, D., Odendahl, R., Paez, K., Thompson, L., Lucado, J., ...Rouse, M. (2018). Strong Start for Mothers and Newborns Evaluation: Year 5 Project Synthesis. Urban Institute. https://downloads.cms.gov/files/cmmi/strongstartprenatal-finalevalrpt-v1.pdf
- G. Ickovics, J.R., Kershaw, T.S., Westdahl, C., Magriples, U., Massey, Z., Reynolds, H., & Rising, S.S. (2007). Group prenatal care and perinatal outcomes: A randomized controlled trial. *Obstetrics and Gynecology*, 110(2 Pt 1), 330-339. dx.doi.org/10.1097/01. AOG.0000275284.24298.23
- H. Ickovics, J.R, Reed, E., Magriples, U., Westdahl, C., Rising, S.S., & Kershaw, T.S. et al. (2011). Effects of Group prenatal care on psychosocial risk in pregnancy: Results from a randomized controlled trial. *Psychology & Health*, 26(2), 235-250. dx.doi.org/10.10 80/08870446.2011.531577
- Ickovics, J.R., Earnshaw, V., Lewis, J.B., Kershaw, T.S., Magriples, U., Stasko, E., Rising, S.S., Cassells, A., Cunningham, S., Bernstein, P., & Tobin, J.N. (2016). Cluster randomized trial of group prenatal care: Perinatal outcomes among adolescents in New York City health centers. *American Journal of Public Health*, 106(2), 359-365. dx.doi.org/10.21054/AJPH.2015.302960
- J. Kennedy, H.P., Farrell, T., Paden, R., Hill, S., Jolivet, R.R., Cooper, B.A., & Rising, S.S. (2011). A randomized clinical trial of group prenatal care in two military settings. *Military Medicine*, *176*(10), 1169-1177. dx.doi.org/10.7205/MILMED-D-10-00394
- K. Kershaw, T.S., Magriples, U., Westdahl, C., Rising, S.S., & Ickovics, J. (2009). Pregnancy as a window of opportunity for HIV prevention: Effects of an HIV intervention delivered within prenatal care. *American Journal of Public Health*, 99(11), 2079-2086. dx.doi.org/10.2105/AJPH.2008.154476
- L. Klerman, L.V., Ramey, S.L., Goldenberg, R.L., Marbury, S., Hou, J., & Cliver, S.P. (2001). A randomized trial of augmented prenatal care for multiple-risk, Medicaid eligible African American women. *American Journal of Public Health*, *91*(1), 105-111. dx.doi. org/10.2105/ajph.91.1.105
- M. Magriples, U., Boynton, M.H., Kershaw, T.S., Lewis, J., Rising, S.S., Tobin, J.N., Epel, E., & Ickovics, J.R. (2015). The impact of group prenatal care on pregnancy and postpartum weight trajectories. *American Journal of Obstetrics and Gynecology*, 213(5), 688.e1-9. dx.doi.org/10.1016/j.ajog.2015.06.066.
- N. Tanner-Smith, E.E., Steinka-Fry, K.T., & Lipsey M.W. (2013). Effects of CenteringPregnancy group prenatal care on breastfeeding outcomes. *Journal of Midwifery & Women's Health*, 58(4), 389-395. dx.doi.org/10.1111/jmwh.12008
- O. Tanner-Smith, E.E., Steinka-Fry, K.T., & Lipsey M.W. (2013). The Effects of CenteringPregnancy group prenatal care on gestational age, birth weight, and fetal demise. *Maternal and Child Health Journal*, *18*(4), 801-809. dx.doi.org/10.1007/s10995-013-1304-z
- P. Tanner-Smith, E.E., Steinka-Fry, K.T., & Gesell, S.B. (2014). Comparative effectiveness of group and individual prenatal care on gestational weight gain. *Maternal and Child Health Journal*, *18*(7), 1711-1720. dx.doi.org/10.1007/s10995-013-1413-8

Evidence-Based Home Visiting Programs Strong Causal Studies

- A. Casillas, K. L., Fauchier, A., Derkash, B. T., & Garrido, E. F. (2016). Implementation of evidence-based home visiting programs aimed at reducing child maltreatment: A meta-analytic review. *Child Abuse and Neglect*, 53, 64-80. https://doi.org/10.1016/j. chiabu.2015.10.009
- B. Sama-Miller, E., Akers, L., Mraz-Esposito, A., Couhglin, R. & Zukiewicz, M. (2019). Home visiting evidence of effectiveness review: Executive summary. OPRE Report 2019-93. https://homvee.acf.hhs.gov/sites/default/files/2019-09/HomeVEE_Executive_ Summary_2019_B508.pdf
- C. Filene, J. H., Kaminski, J. W., Valle, L. A., & Cachat, P. (2013). Components associated with home visiting program outcomes: A meta-analysis. *Pediatrics*, *132*, S100-S109. https://doi.org/10.1542/peds.2013-1021H
- D. Nievar, M. A., Van Egeren, L. A., & Pollard, S. (2010). A meta-analysis of home visiting programs: Moderators of improvements in maternal behavior. *Infant Mental Health Journal*, *31*, 499-520. https://doi.org/10.1002/imhj.20269
- E. Michalopoulos, C., Faucetta, K., Hill, C. J., Portilla, X. A., Burrell, L., Lee, H., Duggan, A. & Knox. V. (2019). Impacts on family outcomes of evidence-based early childhood home visiting: Results from the mother and infant home visiting program evaluation. OPRE Report 2019-07. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. https://www.acf.hhs.gov/sites/default/files/opre/mihope_impact_report_final20_508.pdf

Early Head Start Strong Causal Studies

- A. Burgette, J. M., Preisser, J. S., Weinberger, M., King, R. S., Lee, J. Y., & Rozier, R. G. (2017). Impact of Early Head Start in North Carolina on dental care use among children younger than 3 years. *American Journal of Public Health*, 107(4), 614–620. https://doi. org/10.2105/AJPH.2016.303621
- B. Burgette, J. M., Preisser, J. S., Weinberger, M., King, R. S., Lee, J. Y., & Rozier, R. G. (2017). Enrollment in early head start and oral health-related quality of life. *Quality of Life Research*, 26(10), 2607–2618. https://doi.org/10.1007/s11136-017-1584-7
- C. Chazan-Cohen, R., Ayoub, C., Pan, B. A., Roggman, L., Raikes, H., McKelvey, L., Whiteside-Mansell, L., & Hart, A. (2007). It takes time: Impacts of Early Head Start that lead to reductions in maternal depression two years later. *Infant Mental Health Journal*, 28(2), 151–170. https://doi.org/10.1002/imhj.20127
- D. Chazan-Cohen, R., & Kisker, E. E. (2013). VI. Links between early care and education experiences birth to age 5 and prekindergarten outcomes. Monographs of the Society for Research in Child Development, 78(1), 110–129. https://doi.org/10.1111/ j.1540-5834.2012.00705.x
- E. Chazan-Cohen, R., Raikes, H. H., & Vogel, C. (2013). V. Program subgroups: Patterns of impacts for home-based, center-based, and mixed-approach programs. *Monographs of the Society for Research in Child Development*, 78(1), 93–109. https://doi.org/10.1111/j.1540-5834.2012.00704.x
- F. Green, B. L., Ayoub, C., Bartlett, J. D., Von Ende, A., Furrer, C., Chazan-Cohen, R., Vallotton, C., & Klevens, J. (2014). The effect of Early Head Start on child welfare system involvement: A first look at longitudinal child maltreatment outcomes. *Children and Youth Services Review*, 42, 127–135. https://doi.org/10.1016/j.childyouth.2014.03.044
- G. Jones Harden, B., Chazan-Cohen, R., Raikes, H., & Vogel, C. (2012). Early Head Start home visitation: The role of implementation in bolstering program benefits. *Journal of Community Psychology*, *40*(4), 438–455. https://doi.org/10.1002/jcop.20525
- H. Jones Harden, B., Sandstrom, H., & Chazan-Cohen, R. (2012). Early Head Start and African American families: Impacts and mechanisms of child outcomes. *Early Childhood Research Quarterly*, 27(4), 572–581. https://doi.org/10.1016/j.ecresq.2012.07.006
- Love, J. M., Eliason Kisker, E., Ross, C. M., Schochet, P. Z., Brooks-Gunn, J., Paulsell, D., Boller, K., Constantine, J., Vogel, C., Sidle Fuligni, A., & Brady-Smith, C. (2001). Building their futures: How Early Head Start programs are enhancing the lives of infants and toddlers in low-income families. Mathematica Policy Research, Inc. https://www.acf.hhs.gov/opre/resource/building-their-futureshow-early-head-start-programs-are-enhancing-the-1
- J. Love, J. M., Eliason Kisker, E., Ross, C. M., Schochet, P. Z., Brooks-Gunn, J., Paulsell, D., Boller, K., Constantine, J., Vogel, C., Sidle Fuligni, A., & Brady-Smith, C. (2002). *Making a difference in the lives of infants and toddlers and their families: The Impacts of Early Head Start*. Mathematica Policy Research, Inc. https://www.acf.hhs.gov/sites/default/files/opre/impacts_vol1.pdf
- K. Love, J. M., Eliason Kisker, E., Ross, C. M., Schochet, P. Z., Brooks-Gunn, J., Paulsell, D., Boller, K., Constantine, J., Vogel, C., Sidle Fuligni, A., & Brady-Smith, C. (2004). The role of Early Head Start programs in addressing the child care needs of low-income families with infants and toddlers: Influences on child care use and quality. Mathematica Policy Research, Inc. https://www.acf.hhs.gov/opre/ resource/the-role-of-early-head-start-programs-in-addressing-the-child-care-needs-of
- L. McKelvey, L., Schiffman, R. F., Brophy-Herb, H. E., Bocknek, E. L., Fitzgerald, H. E., Reischl, T. M., Hawver, S., & Deluca, M. C. (2015). Examining long-term effects of an infant mental health home-based Early Head Start program on family strengths and resilience. *Infant Mental Health Journal*, 36(4), 353–365. https://doi.org/10.1002/imhj.21518
- M. Paschall, K. W., Mastergeorge, A. M., & Ayoub, C. C. (2019). Associations between child physical abuse potential, observed maternal parenting, and young children's emotion regulation: Is participation in Early Head Start protective? *Infant Mental Health Journal*, 40(2), 169–185. https://doi.org/10.1002/imhj.21767
- N. Raikes, H. H., Vogel, C., & Love, J. M. (2013). IV. Family subgroups and impacts at ages 2, 3, and 5: Variability by race/ethnicity and demographic risk. *Monographs of the Society for Research in Child Development*, 78(1), 64–92. https://doi.org/10.1111/j.1540-5834.2012.00703.x
- O. Robinson, J. L., & Emde, R. N. (2004). Mental health moderators of Early Head Start on parenting and child development: Maternal depression and relationship attitudes. *Parenting*, 4(1), 73–97. https://doi.org/10.1207/s15327922par0401_4
- P. Roggman, L. A., Boyce, L. K., & Cook, G. A. (2009). Keeping kids on track: Impacts of a parenting-focused Early Head Start program on attachment security and cognitive development. *Part of Special Issue: Early Head Start: New Looks at Program Impacts*, 20(6), 920–941. https://doi.org/10.1080/10409280903118416
- Q. Roggman, L. A., & Cook, G. A. (2010). Attachment, aggression, and family risk in a low-income sample. *Family Science*, 1(3–4), 191–204. https://doi.org/10.1080/19424620.2010.567829

- R. Vallotton, C. D., Harewood, T., Ayoub, C. A., Pan, B., Mastergeorge, A. M., & Brophy-Herb, H. (2012). Buffering boys and boosting girls: The protective and promotive effects of Early Head Start for children's expressive language in the context of parenting stress. *Early Childhood Research Quarterly*, 27(4), 695–707. https://doi.org/10.1016/j.ecresq.2011.03.001
- S. Vogel, C., Brooks-Gunn, J., Martin, A., & Klute, M. M. (2013). III. Impacts of Early Head Start participation on child and parent outcomes at ages 2, 3, and 5. *Monographs of the Society for Research in Child Development*, 78(1), 36–63. https://doi.org/10.1111/ j.1540-5834.2012.00702.x
- T. Vogel, C. A., Xue, Y., Moiduddin, E. M., & Lepidus Carlson, B. (2010). Early Head Start children in grade 5: Long-term follow-up of the Early Head Start Research and Evaluation Project Study sample (OPRE 2011-8; p. 193). Office of Planning, Research & Evaluation, Administration for Children & Families, U.S. Department of Health and Human Services. https://www.acf.hhs.gov/opre/resource/ early-head-start-children-in-grade-5-long-term-followup-of-the-early-head
- U. Whiteside-Mansell, L., Bradley, R., McKelvey, L., & Lopez, M. (2009). Center-based Early Head Start and children exposed to family conflict. *Early Education and Development*, 20(6), 942–957. https://doi.org/10.1080/10409280903206211
- V. Yazejian, N., Bryant, D. M., Hans, S., Horm, D., Clair, L. S., File, N., & Burchinal, M. (2017). Child and parenting outcomes after 1 year of Educare. *Child Development*, 88(5), 1671–1688. https://doi.org/10.1111/cdev.12688

Early Intervention Services Strong Causal Studies

- A. Vanderveen, J.A., Bassler, D., Robertson, C.M.T., & Kirpalani, H. (2009). Early interventions involving parents to improve neurodevelopmental outcomes of premature infants: a meta-analysis. *Journal of Perinatology*, 29, 343–351. https://doi. org/10.1038/jp.2008.229
- B. McManus, B., Carle, A., & Poehlmann, J. (2012). Effectiveness of Part C Early Intervention physical, occupational, and speech therapy services for preterm or low birth weight infants in Wisconsin, United States. *Academic Pediatrics*, 12(2), 96–103. https:// doi.org/10.1016/j.acap.2011.11.004
- C. Ramey, C., Bryant, D., Wasik, B., Sparling, J., Fendt, K., & LaVange, L. (1992). Infant Health and Development Program for low birth weight, premature infants: Program elements, family participation, and child intelligence. *Pediatrics*, *3*, 454–465. https:// pediatrics.aappublications.org/content/89/3/454.long
- D. Rauh, V., Achenbach, T., Nurcombe, B., Howell, C., & Teti, D. (1988). Minimizing adverse effects of low birthweight: Four-year results of an early intervention program. *Child Development*, *59*(3), 544–553. https://www.ncbi.nlm.nih.gov/pubmed/2454783
- E. Roberts, M., & Kaiser, A. (2015). Early intervention for toddlers with language delays: A randomized controlled trial. *Pediatrics,* 135(4), 686–693. https://doi.org/10.1542/peds.2014-2134
- F. Shonkoff, J. & Hauser-Cram, P. (1987). Early intervention for disabled infants and their families: A quantitative analysis. *Pediatrics,* 80(5), 650-58. https://pediatrics.aappublications.org/content/80/5/650
- G. Guralnick, M. (1998). Effectiveness of Early Intervention for vulnerable children: A developmental perspective. *American Journal on Intellectual and Developmental Disabilities, 102*(4), 319–345. https://depts.washington.edu/chdd/guralnick/pdfs/effect_EI_AJMR_vol102_98.pdf
- H. Teti, D., Black, M., Viscardi, R., Glass, P., O'Connell, M., Baker, L., Cusson, R., Reiner Hess, C. (2009). Intervention with African American premature infants: Four-month results of an Early Intervention program. *Journal of Early Intervention*, *31*(2), 146-166. https://doi.org/10.1177%2F1053815109331864
- I. McCormick, M., Brooks-Gunn, J., Buka, S., Goldman, J., Yu, J., Salganik, M., Scott, D., Bennett, F., Kay, L., Bernbaum, J., Bauer, C., Martin, C., Woods, E., Martin, A., & Casey, P. (2006). Early Intervention in low birth weight premature infants: Results at 18 years of age for the Infant Health and Development Program. *Pediatrics*, *117*(3), 771–780. https://doi.org/10.1542/peds.2005-1316
- J. Hill, J., Brooks-Gunn, J., Waldfogel, J. (2003). Sustained effects of high participation in an Early Intervention for low birthweight premature infants. *Developmental Psychology*, *39*(4), 730-744. https://doi.org/10.1037/0012-1649.39.4.730

References and Notes: Prenatal-to-3 Policy Goals

Access to Needed Services

¹ Stuber, J. P., Maloy, K. A., Rosenbaum, S., & Jones, K.C. (2000). Beyond stigma: What barriers actually affect the decisions of lowincome families to enroll in Medicaid? The George Washington University School of Public Health and Health Services. https://hsrc. himmelfarb.gwu.edu/sphhs_policy_briefs/53/

² Brien, M., & Swann, C. (1999). Prenatal WIC participation and infant health: Selection and maternal fixed effects. Deloitte Financial Advisory Services, LLP, and University of North Carolina, Greensboro. https://www.researchgate.net/profile/Michael_ Brien/publication/241815776_Prenatal_WIC_Participation_and_Infant_Health_Selection_and_Maternal_Fixed_Effects/ links/555b32b108ae6fd2d829a9cd.pdf

³ Feinberg, E., Silverstein, M., Donahue, S., & Bliss, R. (2011). The impact of race on participation in Part C Early Intervention services. *Journal of Developmental & Behavioral Pediatrics*, 32, 284–291. https://dx.doi.org/10.1097%2FDBP.0b013e3182142fbd

⁴ Herd, P., & Moynihan, D. P. (2018). Administrative burden: Policymaking by other means. New York, NY: Russell Sage Foundation.

⁵ Heckman. (n.d.). Why early investment matters. https://heckmanequation.org/resource/why-early-investment-matters/

Parents' Ability to Work

¹ Novoa, C., & Jessen-Howard, S. (2020, February 18). The child care crisis causes job disruptions for more than 2 million parents each year. *Center for American Progress*. https://www.americanprogress.org/issues/early-childhood/news/2020/02/18/480554/child-care-crisis-causes-job-disruptions-2-million-parents-year/

² Shonkoff, J., Richter, L., van der Gaag, J., & Bhutta, Z. A. (2012). An integrated scientific framework for child survival and early childhood development. *Pediatrics*,129(2): e460-e472. doi:10.1542/peds.2011-0366

³ Research Policy Brief: The Brain Science of Poverty and its Policy Implications- Institute for Research on Poverty- UW-Madison. June 2019, No. 40-2019

⁴ Barch, D., Pagliaccio, D., Belden, A., Harms, M. P., Gaffrey, M., Sylvester, C. M., et al. (2016). Effect of hippocampal and amygdala connectivity on the relationship between preschool poverty and school-age depression. *American Journal of Psychiatry* 173, 625–634. doi: 10.1176/appi.ajp.2015.15081014

⁵ Bureau of Labor Statistics. (2019, April 21). Employment characteristics of families. https://www.bls.gov/news.release/pdf/famee.pdf

⁶ Bureau of Labor Statistics. (2020, July 2). The employment situation-June 2020. https://www.bls.gov/news.release/pdf/empsit.pdf

⁷ Harknett, K., Schneider, D., & Luhr, S. (2019). Who cares if parents have unpredictable work schedules?: The association between just-intime work schedules and child care arrangements. Washington Center for Equitable Growth. https://equitablegrowth.org/working-papers/ who-cares-if-parents-have-unpredictable-work-schedules-the-association-between-just-in-time-work-schedules-and-child-carearrangements/

⁸ Schneider, D., & Harknett, K. (2019). *Parental exposure to routine work schedule uncertainty and child behavior.* Washington Center for Equitable Growth. https://equitablegrowth.org/working-papers/parental-exposure-to-routine-work-schedule-uncertainty-and-child-behavior/

⁹ Vogtman, J., & Schulman, K. (2016). *Set up to fail: When low-wage work jeopardizes parents' and children's success*. National Women's Law Center. https://nwlc.org/wp-content/uploads/2016/01/FINAL-Set-Up-To-Fail-When-Low-Wage-Work-Jeopardizes-Parents%E2%80%99-and-Children%E2%80%99s-Success.pdf

¹⁰ National Women's Law Center. (2019). *State and local laws advancing fair work schedules* [Fact sheet]. https://nwlc-ciw49tixgw5lbab. stackpathdns.com/wp-content/uploads/2019/10/Fair-Schedules-Factsheet-v2.pdf

¹¹ Williams, J. C., Lambert, S., J., Kesavan, S., Fugiel, P. J., Ospina, L. A., Rapoport, E. D., Jarpe, M., Bellisle, D., Pendem, P, McCorkell, L., & Adler-Milstein, C. (2018). Stable scheduling increases productivity and sales: The stable scheduling study. *Worklife Law.* http://worklifelaw. org/publications/Stable-Scheduling-Study-Report.pdf

¹² Schneider, D., Harknett, K. Haley, A., Lambert, S., & Romich, J. (2018). *The evaluation of Seattle's Secure Scheduling Ordinance: Baseline report and considerations for the year 1 evaluation.* West Coast Poverty Center: University of Washington.

¹³ National Conference of State Legislatures. (2018). *Two-generation approaches to addressing poverty: A toolkit for state legislators.* https://www.ncsl.org/research/human-services/two-generation-strategies-toolkit.aspx

¹⁴ Chase-Lansdale, P.L. & Brooks-Gunn, J. (2014). Two-generation programs in the twenty-first century. The Future of Children, 24(1): 13-39.

¹⁵ Hsueh, J., & Farrell, M. E. (2012). Enhanced Early Head Start with employment services: 42-month impacts from the Kansas and Missouri sites of the Enhanced Services for the Hard-to-Employ Demonstration and Evaluation Project. Washington, DC: Administration for Children and Families. https://www.acf.hhs.gov/opre/resource/enhanced-early-head-start-with-employment-services-42-month-impacts-from;

¹⁶ Huston, A. C., Miller, C., Richburg-Hayes, L., Duncan, G., Eldred, C., Weisner, T. S., Lowe, E. D., McLoyd, V., Crosby, D., Ripke, M. N., Redcross, C. (2003). *New Hope for families and children: Five-year results of a program to reduce poverty and reform welfare.* New York, NY: MDRC. https://www.mdrc.org/publication/new-hope-families-and-children

¹⁷ Quint, J. C., Bos, J. M., & Polit, D. F. (1997). New chance: Final report on a comprehensive program for young mothers in poverty and their children. New York, NY: MDRC. https://www.mdrc.org/publication/new-chance

¹⁸ St. Pierre, R. G., Layzer, J. I., Goodson, B. D., & Bernstein, L. S. (1997). *National impact evaluation of the Comprehensive Child Development Program.* Washington, DC: Administration for Children and Families. https://www.acf.hhs.gov/opre/resource/national-impact-evaluationof-the-comprehensive-child-development

Sufficient Household Resources

¹ Shonkoff, J. (2017). Breakthrough impacts: What science tells us about supporting early childhood development. *YC Young Children*, *72*(2), 8-16

² Calculations were done by the Prenatal-to-3 Policy Impact Center using the 2018 American Community Survey (ACS), 1-Year Public Use Microdata Sample (PUMS)

³ National Academies of Sciences, Engineering, and Medicine. (2019). *A roadmap to reducing child poverty*. Washington, DC: The National Academies Press. https://doi.org/10.17226/25246

⁴ Center on the Developing Child. (n.d.) Serve and return. https://developingchild.harvard.edu/science/key-concepts/serve-and-return/#:~:text=Serve%20and%20return%20interactions%20shape,of%20communication%20and%20social%20skills

⁵ Center on the Developing Child. (n.d.) Neglect. https://developingchild.harvard.edu/science/deep-dives/neglect/

⁶ Calculations were done by the Prenatal-to-3 Policy Impact Center using the 2018 American Community Survey (ACS), 1-Year Public Use Microdata Sample (PUMS)

⁷ Altman, D. Coronavirus' unequal economic toll. *Axios.* https://www.axios.com/coronavirus-economy-jobs-unemployent-racialdisparities-29e3c6c4-bb43-4eaf-bf90-04697ca66b2d.html

⁸ Coleman-Jensen, A., Rabbitt, M. P., Gregory, C. A., & Singh, A. (2017). *Household food security in the United States in 2016 (Economic Research Report No. 237).* Washington, DC: US Department of Agriculture

⁹ Alaimo, K. (2005.) Food insecurity in the United States: An overview. *Topics in Clinical Nutrition* 20(4):281–298

¹⁰ Gundersen, C., & Ziliak, J. P. (2014.) Childhood food insecurity in the US: Trends, causes, and policy options. *The Future of Children* 24(2):1–19

¹¹ Solari, C. D., & Mare, R. D. (2012). Housing crowding effects on children's wellbeing. *Social Science Research*, 41(2), 464–476. https://doi. org/10.1016/j.ssresearch.2011.09.012

¹² Mabli, J., & Worthington, J. (2014). Supplemental Nutrition Assistance Program participation and child food security. *Pediatrics,* 133(4), 610–619. https://doi.org/10.1542/peds.2013-2823

¹³ Tax Policy Center. (2020). What is the child tax credit? *Tax Policy Center briefing book: Key elements of the U.S. tax system.* https://www. taxpolicycenter.org/briefing-book/what-child-tax-credit

¹⁴ Maag, E. (2018). Who benefits from the child tax credit now? Urban Institute. https://www.urban.org/research/publication/whobenefits-child-tax-credit-now

¹⁵ Tax Credits for Workers and Their Families. (2019). State Tax Credits. http://www.taxcreditsforworkersandfamilies.org/state-taxcredits/#1468434105770-44f9c6c5-52e0

¹⁶ West, R. (2019). Harnessing state child tax credits will dramatically reduce child poverty. Center for American Progress. https://www. americanprogress.org/issues/poverty/reports/2019/04/16/467299/harnessing-state-child-tax-credits-will-dramatically-reduce-childpoverty/

¹⁷ Tax Policy Center. (2020). How does the tax system subsidize child care expenses? *Briefing book: Key elements of the U.S. tax system.* https://www.taxpolicycenter.org/briefing-book/how-does-tax-system-subsidize-child-care-expenses

¹⁸ Tax Policy Center. (2020). How does the tax system subsidize child care expenses? *Briefing book: Key elements of the U.S. tax system.* https://www.taxpolicycenter.org/briefing-book/how-does-tax-system-subsidize-child-care-expenses

¹⁹ Tax Credits for Workers and Their Families. (2019). State tax credits. http://www.taxcreditsforworkersandfamilies.org/state-taxcredits/#1468434107561-be99920d-11c4

²⁰ Shonkoff, J. (2017). Breakthrough impacts: What science tells us about supporting early childhood development. *YC Young Children* 72(2), 8–16. www.jstor.org/stable/90004117

²¹ Shonkoff, J., Richter, L., van der Gaag, J., & Bhutta, Z. A. (2012). An integrated scientific framework for child survival and early childhood development. *Pediatrics*, 129(2), e460. https://doi.org/10.1542/peds.2011-0366

²² Baby's First Years. (n.d). Data collection. https://www.babysfirstyears.com/data-collection

Healthy and Equitable Births

¹ National Institutes of Child Health and Human Development. (2012). The long-lasting effects of preterm birth. US Department of Health and Human Services. https://www.nichd.nih.gov/newsroom/resources/spotlight/012612-effects-preterm-birth

² Institute of Medicine (US) Committee on Understanding Premature Birth and Assuring Healthy Outcomes (2007). *Preterm birth: Causes, consequences, and prevention.* Behrman, R. E., & Butler, A. S. (Eds.). Washington (DC): National Academies Press (US). https://www.ncbi. nlm.nih.gov/books/NBK11382/

³ National Institutes of Child Health and Human Development. (2012). The long-lasting effects of preterm birth. US Department of Health and Human Services. https://www.nichd.nih.gov/newsroom/resources/spotlight/012612-effects-preterm-birth

⁴ Martin, J. A., Hamilton, B. E., Osterman, M. J. K., Driscoll, A. K. (2019, November 27). Births: Final data for 2018. *National Vital Statistics Reports, 68*(13). https://www.cdc.gov/nchs/data/nvsr/0vsr68/nvsr68_13-508.pdf

⁵ Hoyert, D. L., & Miniño, A. M. (2020). Maternal mortality in the United States: Changes in coding, publication, and data release, 2018. *National Vital Statistics Reports, (69)*2. Hyattsville, MD: National Center for Health Statistics.

⁶ Creanga, A. A., Bateman, B. T., Kuklina, E. V., & Callaghan, W. M. (2014). Racial and ethnic disparities in severe maternal morbidity: A multistate analysis, 2008-2010. *American Journal of Obstetrics and Gynecology, 210*(5), 435.e1-435.e8. https://doi.org/10.1016/j. ajog.2013.11.039

⁷ Novoa, C., & Taylor, J. (2018). Exploring African Americans' high maternal and infant death rates. https://www.americanprogress.org/ issues/early-childhood/reports/2018/02/01/445576/exploring-african-americans-high-maternal-infant-death-rates/

⁸ Lu, M. C., Kotelchuck, M., Hogan, V., Jones, L., Wright, K., & Halfon, N. (2010). Closing the Black-White gap in birth outcomes: a lifecourse approach. *Ethnicity & Disease, 20*(1 Suppl 2), S2–76.

⁹ The Division of MCH Workforce Development. (n.d.). Life course approach in MCH. https://mchb.hrsa.gov/training/lifecourse.asp

¹⁰ Centers for Disease Control. (2020, June 25). COVID-19 in racial and ethnic minority groups. https://www.cdc.gov/coronavirus/2019ncov/need-extra-precautions/racial-ethnic-minorities.html

¹¹ Bion, X. S. (2020, April 20). Efforts to reduce black maternal mortality complicated by COVID-19. California Health Care Foundation. https://www.chcf.org/blog/efforts-reduce-black-maternal-mortality-complicated-covid-19/

¹² Centers for Disease Control and Prevention. (2019). Pregnancy-related deaths. https://www.cdc.gov/reproductivehealth/ maternalinfanthealth/pregnancy-relatedmortality.htm

¹³ 2018 CDC National Vital Statistics Report: Maternal Mortality in the United States: Changes in Coding, Publication, and Data Release, 2018.

¹⁴ Main, E. K., Markow, C., & Gould, J. (2018). Addressing maternal mortality and morbidity in California through public-private partnerships. *Health Affairs*, *37*(9), 1484–1493. https://doi.org/10.1377/hlthaff.2018.0463

¹⁵ Centers for Disease Control and Prevention (CDC). (2019). *Pregnancy-related deaths*. https://www.cdc.gov/reproductivehealth/ maternalinfanthealth/pregnancy-relatedmortality.htm

¹⁶ Main, E. K. (2018). Reducing maternal mortality and severe maternal morbidity through state-based quality improvement initiatives. *Clinical Obstetrics and Gynecology*, 61(2), 319.

¹⁷ Main, E. K., Markow, C., & Gould, J. (2018). Addressing maternal mortality and morbidity in California through public-private partnerships. *Health Affairs*, *37*(9), 1484–1493. https://doi.org/10.1377/hlthaff.2018.0463

¹⁸ Zero to Three. (2019, October 29). California bill mandates implicit bias training for perinatal healthcare professionals. https://www.zerotothree.org/resources/2977-california-bill-mandates-implicit-bias-training-for-perinatal-healthcareprofessionals

¹⁹ Hayes, T. O., & McNeil, C. (2019, September 9). Maternal Mortality in the United States. Retrieved October 25, 2019, from https://www.americanactionforum.org/insight/maternal-mortality-in-the-united-states/

²⁰ Hayes, T. O., & McNeil, C. (2019, September 9). Maternal Mortality in the United States. Retrieved October 25, 2019, rom https://www.americanactionforum.org/insight/maternal-mortality-in-the-united-states/

²¹ Mahoney, J. (2018). The alliance for innovation in maternal health care: A way forward. *Clinical Obstetrics and Gynecology*, 61(2), 400.

²² Main, E. K., Markow, C., & Gould, J. (2018). Addressing maternal mortality and morbidity in California through public-private partnerships. *Health Affairs*, *37*(9), 1484–1493. https://doi.org/10.1377/hlthaff.2018.0463

²³ Main, E. K., Cape, V., Abreo, A., Vasher, J., Woods, A., Carpenter, A., & Gould, J. B. (2017). Reduction of severe maternal morbidity from hemorrhage using a state Perinatal Quality Collaborative. *American Journal of Obstetrics and Gynecology*, *216*(3), 298.e1-298.e11. https://doi. org/10.1016/j.ajog.2017.01.017

²⁴ Kozhimannil, K. B., Hardeman, R. R., Alarid-Escudero, F., Vogelsang, C. A., Blauer-Peterson, C., & Howell, E. A. (2016). Modeling the cost-effectiveness of doula care associated with reductions in preterm birth and cesarean delivery. *Birth*, *43*(1), 20–27. https://doi. org/10.1111/birt.12218

²⁵ Kozhimannil, K. B., Hardeman, R. R., Attanasio, L. B., Blauer-Peterson, C., & O'Brien, M. (2013). Doula care, birth outcomes, and costs among Medicaid beneficiaries. *American Journal of Public Health*, 103(4), e113–e121. https://doi.org/10.2105/AJPH.2012.301201

²⁶ Everson, C.L., Cheyney, M., & Bovbjerg, M.L. (2018). Outcomes of care for 1,892 doula-supported adolescent births in the United States: The DONA international data project, 2000 to 2013. *Journal of Perinatal Education, 27*(3): 135-147. doi: 10.1891/1058-1243.27.3.135

²⁷ National Health Law Program. As of February 20, 2020. For additional information, please refer to the Methods and Sources section of pn3policy.org

²⁸ Taylor, J., Novoa, C., Hamm, K., & Phadke, S. (2019). *Eliminating racial disparities in maternal and infant mortality*. Center for American Progress. https://www.americanprogress.org/issues/women/reports/2019/05/02/469186/eliminating-racial-disparities-maternalinfant-mortality/

²⁹ Council on Patient Safety in Women's Health Care. Reduction of Peripartum Racial/Ethnic Disparities (+AIM). (2016, October 27). Retrieved October 15, 2019, from https://safehealthcareforeverywoman.org/patient-safety-bundles/reduction-of-peripartum-racialethnic-disparities/

³⁰ California Maternal Quality Care Collaborative. Birth Equity. (2019). Retrieved October 15, 2019, from https://www.cmqcc.org/ qi-initiatives/birth-equity

³¹ Zero to Three. (2019, October 29). California bill mandates implicit bias training for perinatal healthcare professionals. https://www.zerotothree.org/resources/2977-california-bill-mandates-implicit-bias-training-for-perinatal-healthcareprofessionals

Parental Health and Emotional Wellbeing

¹ Committee on Obstetric Practice. (2015). ACOG Committee opinion: Screening for perinatal depression. The American College of Obstetricians and Gynecologists. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/11/screening-for-perinatal-depression

² Yawn, B. P., Olson, A. L., Bertram, S., Pace, W., Wollan, P., & Dietrich, A. J. (2012). Postpartum depression: screening, diagnosis, and management programs 2000 through 2010. *Depression Research and Treatment*, 2012. https://pubmed.ncbi.nlm.nih.gov/22900157/

³ Bauman, B. L., Ko, J. Y., Cox, S., D'Angelo, D. V., Warner, L., Folger, S., Tevendale, H. D., Coy, K., C., Harrison, L., Barfield, W. D. (2020, May 15). Vital signs: Postpartum depressive symptoms and provider discussions about perinatal depression – United States, 2018. *Morbidity and Mortality Weekly Report, 69*(19);575–581. Centers for Disease Control. https://www.cdc.gov/mmwr/volumes/69/wr/mm6919a2. htm?s_cid=mm6919a2_w

⁴ Braveman, P., & Gottlieb, L. (2014). The social determinants of health: It's time to consider the causes of the causes. *Public Health Reports*, *129*(Suppl 2): 19-31. https://doi:10.1177/00333549141291S206

⁵ Novoa, C. (2020). Ensuring Healthy births through prenatal support. Center for American Progress. https://www.americanprogress.org/ issues/early-childhood/reports/2020/01/31/479930/ensuring-healthy-births-prenatal-support/

⁶ Centers for Disease Control. (2020, June 25). COVID-19 in racial and ethnic minority groups. https://www.cdc.gov/coronavirus/2019ncov/need-extra-precautions/racial-ethnic-minorities.html

⁷ Massachusetts Child Psychiatry Access Program. (n.d.). Overview, vision, history. https://www.mcpap.com/About/ OverviewVisionHistory.aspx

⁸ Center on the Developing Child. (n.d.) MOMS Partnership. https://developingchild.harvard.edu/innovation-application/innovation-inaction/moms/

⁹Yale School of Medicine. (n.d.). Welcome to Elevate: A policy lab to elevate mental health and disrupt poverty. https://medicine.yale. edu/psychiatry/elevate/

¹⁰ Elevate. *Findings from six MOMS Partnership goals & needs assessments.* (2019). Yale School of Medicine. https://medicine.yale.edu/ psychiatry/elevate/our-work/scaling/GNA%20Findings%20From%20Six%20Sites_383295_284_47060_v1.pdf

¹¹ Office of Disease Prevention and Health Promotion. (n.d.). Get screened. U.S. Department of Health and Human Services. https:// health.gov/myhealthfinder/topics/doctor-visits/screening-tests/get-screened#:~:text=Screenings%20are%20medical%20tests%20 that,can%20do%20for%20your%20health.

¹² Committee on Obstetric Practice. (2015). ACOG Committee opinion: Screening for perinatal depression. The American Colege of Obstetricians and Gynecologists. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/11/screening-for-perinatal-depression

¹³ Committee on Obstetric Practice. (2015). ACOG Committee opinion: Screening for perinatal depression. The American Colege of Obstetricians and Gynecologists. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/11/screening-for-perinatal-depression

¹⁴ Wilkinson, A., Anderson, S., & Wheeler, S. B. (2017). Screening for and treating postpartum depression and psychosis: A costeffectiveness analysis. *Maternal and Child Health Journal*, 21(4), 90-914. https://link.springer.com/article/10.1007%2Fs10995-016-2192-9

¹⁵ King, T. M, Tandon, S. D., Macias, M. M., Healy, J. A., Duncan, P. M, Swigonski, N. L., Skipper, S. M. & Lipkin, P. H. (2010). Implementing developmental screening and referrals: Lessons learned from a national project. *Pediatrics*, *125*(2), 350-360

¹⁶ Schonwald, A., Huntington, N., Chan, E., Risko, W., & Bridgemohan, C. (2009). Routine developmental screening implemented in urban primary care settings: More evidence of feasibility and effectiveness. *Pediatrics*, *123*(2).

Nurturing and Responsive Child-Parent Relationships

¹ Center on the Developing Child. (n.d.) Serve and return. https://developingchild.harvard.edu/science/key-concepts/serve-and-return/#:~:text=Serve%20and%20return%20interactions%20shape,of%20communication%20and%20social%20skills

² Center on the Developing Child. (n.d.) Neglect. https://developingchild.harvard.edu/science/deep-dives/neglect/

³ Center on the Developing Child. (n.d.) Neglect. https://developingchild.harvard.edu/science/deep-dives/neglect/

⁴ Shonkoff, J. (2014). A healthy start before and after birth: Applying the biology of adversity to build the capabilities of caregivers. In K. McCartney, H., Yoshikawa, & L. B. Forcier (Eds.), *Improving the Odds for America's Children* (pp. 28-39). Harvard Education Press.

⁵ Peterman, A., Potts, A., O'Donnell, M., Thompson, K., Shah, N., Oertelt-Prigione, S., & van Gelder, N. (2020). Pandemics and violence against women and children. *Center for Global Development working paper, 528*. https://www.cgdev.org/publication/pandemics-and-violence-against-women-and-children

Nurturing and Responsive Child Care in Safe Settings

¹ Center on the Developing Child. (n.d.). *Serve and* return. https://developingchild.harvard.edu/science/key-concepts/serve-and-return/#:~:text=Serve%20and%20return%20interactions%20shape,of%20communication%20and%20social%20skills

² National Scientific Council on the Developing Child. (2012). *The science of neglect: The persistent absence of responsive care disrupts the developing brain: working paper* 12. https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2012/05/The-Science-of-Neglect-The-Persistent-Absence-of-Responsive-Care-Disrupts-the-Developing-Brain.pdf

³ National Research Council. (2012). The early childhood care and education workforce: Challenges and opportunities: A workshop report. National Academies Press. https://www.nap.edu/catalog/13238/the-early-childhood-care-and-education-workforce-challenges-and-opportunities

⁴ Shonkoff, J. (2014). A healthy start before and after birth: Applying the biology of adversity to build the capabilities of caregivers. In K. McCartney, H. Yoshikawa, & L. B. Forcier (Eds.), *Improving the Odds for America's Children* (pp. 28-39).

⁵ Otten, J. J., Bradford, V. A., Stover, B., Hill, H. D., Osborne, C., Getts, K., & Seixas, N. (2019). The culture of health in early care and education: Workers' wages, health, and job characteristics. *Health Affairs*, *38*(5), 709-720. https://pubmed.ncbi.nlm.nih.gov/31059354/

⁶ Whitebook, M., McLean, C., Austin, L. J. E., & Edwards, B. (2018). *Early childhood workforce index – 2018.* Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley. http://cscce.berkeley.edu/topic/early-childhood-workforce-index/2018/

⁷ National Survey of Early Care and Education Project Team. (2014, November). Characteristics of center-based early care and education programs: Initial findings from the National Survey of Early Care and Education (NSECE) (OPRE Report #2014-73a). Washington DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. https://www.acf.hhs.gov/sites/default/files/opre/characteristics_of_cb_ece_programs_111014.pdf

⁸ Burchinal, M. (2010). *Differentiating among measures of quality: Key characteristics and their coverage in existing measures*, OPRE Researchto-Policy, Research-to-Practice Brief OPRE 2011-10b. Office of Planning, Research and Evaluation, Administration for Children and Families, US Department of Health and Human Services. https://www.acf.hhs.gov/sites/default/files/opre/differ_measures.pdf

⁹ Gordan, R. A., Fujimoto, K., Kaestener, R., Korenman, S., & Abner, K. (2013). An assessment of the validity of the ECERS-R with implications for measures of child care quality and relations to child development. *Developmental Psychology*, *49*(1), 146-160. https://doi. org/10.1037/a0027899.

¹⁰ Mulligan, G., & Flanagan, K. (2006). *Findings from the 2-year-old follow-up of the Early Childhood Longitudinal Study, birth cohort (ECLS-B).* Washington, DC: National Center for Educational Statistics (NCES 2006-043). https://nces.ed.gov/pubsearch/pubsinfo. asp?pubid=2006043

¹¹ Child Care Aware of America. (2019). *The US and the high price of child care: An examination of a broken system*. https://cdn2. hubspot.net/hubfs/3957809/2019%20Price%20of%20Care%20State%20Sheets/Final-TheUSandtheHighPriceofChildCare-AnExaminationofaBrokenSystem.pdf?utm_referrer=https%3A%2F%2Fwww.childcareaware.org%2Four-issues%2Fresearch%2Fthe-usand-the-high-price-of-child-care-2019%2F

¹² Fuller B., Kagan, S. L., Caspary, G. L., & Gauthier, C. A. (2002). Welfare reform and child care options for low-income families. *Future Child*, *12*(1):96-119.

¹³ Brooks-Gunn, J. (2003). Do you believe in magic? What we can expect from early childhood intervention programs. *Social Policy Report, 17*(1), 3-15. doi:10.1002/j.2379-3988.2003.tb00020.x

¹⁴ Wright, T. S. (2011). Countering the politics of class, race, gender, and geography in early childhood education. *Education Policy*, 25(1), 240-261. doi:10.1177/0895904810387414

¹⁵ First Five Years Fund. (n.d.). *Head Start & Early Head Start. First Five Years Fund.* Retrieved January 22, 2020, from https://www.ffyf.org/ issues/head-start-early-head-start/

¹⁶ Head Start Early Childhood Learning & Knowledge Center. (2018, July 12). *Early Head Start programs*. https://eclkc.ohs.acf.hhs.gov/ programs/article/early-head-start-programs

¹⁷ Early Childhood Learning & Knowledge Center, Office of Head Start. (n.d.). About the Early Head Start Program. Retrieved January 23, 2020, from https://eclkc.ohs.acf.hhs.gov/programs/article/about-early-head-start-program

¹⁸ Isner, T., Tout, K., Zaslow, M., Soli, M., Quinn, K., Rothenberg, L., & Burkhauser, M. (2011). *Coaching in early care and education programs and Quality Rating and Improvement Systems (QRIS): Identifying promising features.* Child Trends. https://www.childtrends.org/wp-content/uploads/2013/05/2011-35CoachingQualityImprovement.pdf

¹⁹ National Association for the Education of Young Children & National Association of Child Care Resource & Referral Agencies. (2011). *Early childhood education professional development: Training and technical assistance glossary.* https://www.naeyc.org/sites/default/files/globallyshared/downloads/PDFs/our-work/public-policyadvocacy/glossarytraining_ta.pdf

²⁰ O'Keefe, B. (2017). *Primetime for coaching: Improving instructional coaching in early childhood education.* Bellwether Education Partners. https://bellwethereducation.org/publication/primetime-coaching-improving-instructional-coaching-earlychildhood-education

²¹National Center on Early Childhood Development, Teaching and Learning. (2018). *Early care and education coaching: A closer look at coaching models in child care and Head Start*. Office of Head Start, Early Childhood Learning & Knowledge Center. https://eclkc.ohs.acf.hhs. gov/sites/default/files/pdf/early-care-education-coaching.pdf

²² Zaslow, M., Tout, K., & Halle, T. (2012). *On-site approaches to quality improvement in Quality Rating and Improvement Systems: Building on the research on coaching*. Child Trends. https://www.childtrends.org/publications/on-site-approaches-to-qualityimprovement-in-quality-rating-and-improvement-systems-building-on-the-research-on-coaching

²³ Head Start Program Performance Standards, 45 C.F.R. Chapter XIII, Subchapter B §§ 1302.91 (2016). https://eclkc.ohs.acf.hhs.gov/policy/45-cfr-chap-xiii/1302-91-staff-qualifications-competency-requirements

²⁴ Crowley, A., Jeon, S., & Rosenthal, M. (2013). Health and safety of child care centers: An analysis of licensing specialists' reports of routine, unannounced inspections. *American Journal of Public Health*, 103(10), 52–58. https://dx.doi.org/10.2105%2FAJPH.2013.301298

²⁵ Institute of Medicine and National Research Council. (2015). *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation*. The National Academies Press. https://doi.org/10.17226/19401

²⁶ Bridges, M., Fuller, B., Huang, D. S., & Hamre, B. K. (2011). Strengthening the early childhood workforce: How wage incentives may boost training and job stability. *Early Education and Development* 22(6), 1009-1029. doi: 0.1080/10409289.2010.514537

Optimal Child Health and Development

¹ Shonkoff, J., & Garner, A. S., Siegel, B. S., Dobbins, M. I., Earls, M. F., McGuinn, L., Pascoe, J., Wood, D. L., & Committee on Psychosocial Aspects of Child and Family Health, Committee on Early Childhood, Adoption, and Dependent Care, & Section on Developmental and Behavioral Pediatrics. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics, 129*(1), e232-246. https://doi. org/10.1542/peds.2011-2663

² National Scientific Council on the Developing Child (2020). *Connecting the brain to the rest of the body: Early childhood development and lifelong health are deeply intertwined, Working Paper No. 15.* www.developingchild.harvard.edu.

³ Child Trends. (n.d.). Child maltreatment. https://www.childtrends.org/indicators/child-maltreatment

⁴ Jenco, M. (2019). Study: 1 in 6 children has developmental disability. AAP News. https://www.aappublications.org/news/2019/09/26/ disabilities092619

⁵ Jenco, M. (2019). Study: 1 in 6 children has developmental disability. AAP News. https://www.aappublications.org/news/2019/09/26/ disabilities092619

⁶ Centers for Disease Control and Prevention. (n.d.). Facts: Nationwide breastfeeding goals. https://www.cdc.gov/breastfeeding/data/facts.html

⁷ Centers for Disease Control and Prevention. (n.d.). Facts: Nationwide breastfeeding goals. https://www.cdc.gov/breastfeeding/data/facts.html

References and Notes: Policy and Strategy Profiles

Expanded Income Eligibility for Health Insurance

¹Kaiser Family Foundation. (2020). Health Insurance Coverage of Nonelderly 0-64, Multiple Sources of Coverage.

Retrieved July 15, 2020, from https://www.kff.org/other/state-indicator/health-insurance-coverage-of-nonelderly-0-64-multiple-sources-of-coverage/?currentTimeframe=0&sortModel=%7B%22colld%22:%22Location%22,%22sort%22:%22asc%22%7D#notes.

² Martin, J. A., Hamilton, B. E., Osterman, M. J. K., Driscoll, A. K. (2019, November 27). Births: Final data for 2018. *National Vital Statistics Reports* 68(13). https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_13-508.pdf

³ Hayes, S. L., Coleman, A., Collins, S. R. & Nuzum, R. (2019, Feb. 15). *The fiscal case for Medicaid expansion*. The Commonwealth Fund. https://www.commonwealthfund.org/blog/2019/fiscal-case-medicaid-expansion

⁴ Searing, A., & Ross, D. C. (2019, May). *Medicaid expansion fills gaps in maternal health coverage leading to healthier mothers and babies.* Georgetown University Health Policy Institute.https://ccf.georgetown.edu/wp-content/uploads/2019/05/Maternal-Health-3a.pdf

⁵ Wherry, L. R. (2018). State Medicaid expansions for parents led to increased coverage and prenatal care utilization among pregnant mothers. *Health Services Research*, 53(5), 3569–3591. https://doi.org/10.1111/1475-6773.12820

⁶ Berchick, E. R., Barnett, J. C., & Upton, R. D. (2019). *Health insurance coverage in the United States: 2018* (Current Population Reports, P60-267(RV). The United States Census Bureau. https://www.census.gov/library/publications/2019/demo/p60-267.html

⁷ Jiang, Y., Granja, M. R., & Koball, H. (2017). *Basic facts about low-income children: Children under 3 years, 2015*. National Center for Children in Poverty, Columbia University Mailman School of Public Health. http://www.nccp.org/publications/pdf/text_1171.pdf

⁸ Lowey, N. M. (2020, March 18). Text - H.R.6201 - 116th Congress (2019-2020): Families First Coronavirus Response Act (2019/2020). https://www.congress.gov/bill/116th-congress/house-bill/6201/text

⁹ Norris, L. (2020, June 23). Exceptional circumstances for special enrollment. Healthinsurance.org https://healthinsurance.org/specialenrollment-guide/exceptional-circumstances-for-special-enrollment/

¹⁰ Social Security Act, 42 U.S.C§1135-Suppl. 4 1934. https://www.loc.gov.iterm/uscode1934-005042007

¹¹ Center for Connected Healthy Action. (2020, May 31). COVID-19 related state actions. https://cchpca.org/covid-19-related-state-actions

Reduced Administrative Burden for SNAP

¹ United States Department of Agriculture. (2019). Supplemental Nutrition Assistance Program (SNAP): Overview. https://www.ers.usda. gov/topics/food-nutrition-assistance/supplemental-nutrition-assistance-program-snap/

² Calculations were done by the Prenatal-to-3 Policy Impact Center using the 2018 American Community Survey (ACS), 1-Year Public Use Microdata Sample (PUMS).

³ Fox, L., & Mykta, L. (2018). Supplemental Poverty Measure shows who benefits from government programs. US Census. https://www. census.gov/library/stories/2018/09/supplemental-nutrition-assistance-program-lifts-millions-out-of-poverty.html#:~:text=The%20 Supplemental%20Nutrition%20Assistance%20Program,out%20of%20poverty%20in%202017

⁴ Mabli, J., & Worthington, J. (2014). Supplemental Nutrition Assistance Program participation and child food security. *Pediatrics*, 133(4), 610–619. https://doi.org/10.1542/peds.2013-2823

⁵ Almond, D., Hoynes, H. W., & Schanzenbach, D. W. (2011). Inside the war on poverty: The impact of food stamps on birth outcomes. *The Review of Economics and Statistics*, *93(2)*, 387–403. https://doi.org/10.1162/REST_a_00089

⁶ Bronchetti, E., Christensen, G., & Hoynes, H. (2018). *Local food prices, SNAP purchasing power, and child health* (Working paper No. w24762). National Bureau of Economic Research. https://doi.org/10.3386/w24762

⁷ Hoynes, H., Schanzenbach, D. W., & Almond, D. (2016). Long-run impacts of childhood access to the safety net. *American Economic Review*, *106*(4), 903–934. https://doi.org/10.1257/aer.20130375

⁸ Schanzenbach, D. W. (2019). Exploring Options to Improve the Supplemental Nutrition Assistance Program (SNAP). *The ANNALS of the American Academy of Political and Social Science*, 686(1), 204–228. https://doi.org/10.1177/0002716219882677

⁹ Geller, D., Isaacs, J., Braga, B., & Zic, B. (2019). *Exploring the causes of state variation in SNAP administrative costs*. Prepared by Manhattan Strategy Group and the Urban Institute for the US Department of Agriculture, Food and Nutrition Service. https://fns-prod.azureedge.net/sites/default/files/media/file/SNAP-State-Variation-Admin-Costs-FullReport.pdf

¹⁰ Ziliak, J. P. (2016). Why are so many Americans on food stamps? The role of the economy, policy, and demographics. In Ziliak, J. P., Bartfeld, J., Gundersen, C., Smeeding, T. (Eds.), *SNAP matters: How food stamps affect health and well-being* (pp. 18–48). Stanford University Press.

¹¹ Ganong, P., & Liebman, J. B. (2018). The decline, rebound, and further rise in SNAP enrollment: disentangling business cycle fluctuations and policy changes. *American Economic Journal: Economic Policy*, *10*(4), 153–176. https://doi.org/10.1257/pol.20140016

¹² Stuber, J. P., Maloy, K. A., Rosenbaum, S., & Jones, K. C. (2000). *Beyond stigma: What barriers actually affect the decisions of low-income families to enroll in Medicaid?* [Issue brief]. The George Washington University School of Public Health and Health Services. https://hsrc. himmelfarb.gwu.edu/sphhs_policy_briefs/53/

¹³ Brien, M., & Swann, C. (1999). *Prenatal WIC participation and infant health: Selection and maternal fixed effects*. Deloitte Financial Advisory Services, LLP, and University of North Carolina, Greensboro.https://www.researchgate.net/profile/Michael_Brien/publication/241815776_ Prenatal_WIC_Participation_and_Infant_Health_Selection_and_Maternal_Fixed_Effects/links/555b32b108ae6fd2d829a9cd.pdf4

¹⁴ Center on Budget and Policy Priorities. (2020, March 31). Most States Are Using New Flexibility in SNAP to Respond to COVID-19 Challenges. https://www.cbpp.org/research/food-assistance/most-states-are-using-new-flexibility-in-snap-to-respond-to-covid-19

Paid Family Leave

¹ United States Department of Labor, Wage and Hour Division. Family and Medical Leave Act. https://www.dol.gov/agencies/whd/fmla

² Cornell Law School. Legal Information Institute. Definition of eligible employee under the Family and Medical Leave Act. https://www. law.cornell.edu/cfr/text/29/825.110

³ United States Department of Labor, Wage and Hour Division. *FMLA is working: Fact sheet*. https://www.dol.gov/whd/fmla/survey/FMLA_ Survey_factsheet.pdf

⁴ Bartel, A., Kim, S., Nam, J., Rossin-Slater, M., Ruhm, C., & Waldfogel, J. (2019). Racial and ethnic disparities in access to and use of paid family and medical leave: Evidence from four nationally representative datasets. *Monthly Labor Review*, 1-29. Retrieved July 8, 2020, from www.jstor.org/stable/26603839

⁵ Appelbaum, E. & Milkman, R. (2011). *Leaves that pay: Employer and worker experiences with paid family leave in California.* Center for Economic and Policy Research. http://cepr.net/publications/reports/leaves-that-pay

⁶ Setty, S., Skinner, C. & Wilson-Simmons, R. (2016). *Protecting workers, nurturing families: Building an inclusive family leave insurance program.* National Center for Children in Poverty. http://nccp.org/publications/pdf/text_1152.pdf

⁷ Ruhm, C. J. (2011). Policies to assist parents with young children. *The Future of Children*, *21*, 37–68. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3202345/#__ffn_sectitle

⁸ National Partnership for Women and Families. (2019). *Paid leave works: Evidence from state programs.* http://www.nationalpartnership.org/ our-work/resources/economic-justice/paid-leave/paid-leave-works-evidence-from-state-programs.pdf

⁹ Zero to Three & National Partnership for Women and Families. (2018). *The child development case for a national paid family and medical leave program.* http://www.nationalpartnership.org/our-work/resources/economic-justice/paid-leave/the-child-development-case-for-a-national-paid-family-and-medical-leave-insurance-program.pdf

¹⁰ Persson, P. & Rossin-Slater, M. (2019). When dad can stay home: Fathers' workplace flexibility and maternal health (No. w25902). National Bureau of Economic Research. https://www.nber.org/papers/w25902

¹¹ Pihl, A., &Basso, G. (2015). *Paid family leave, job protection and low take-up among low-wage workers*. University of California Davis Center for Poverty Research. https://poverty.ucdavis.edu/sites/main/files/file-attachments/cpr-pihl_basso_pfl_brief.pdf?1454959949

¹² Coronavirus Aid, Relief, and Economic Security Act, H.R. 748, 116th Cong. (2020)

¹³ Holzer, H. J. (2017). Paid family leave: Balancing benefits and costs. Brookings Institution. https://www.brookings.edu/blog/socialmobility-memos/2017/01/30/paid-family-leave-balancing-benefits-and-costs/

State Minimum Wage

¹ United States Congressional Budget Office (CBO). (2019). *The effects on employment and family income of increasing the federal minimum wage*. https://www.cbo.gov/system/files/2019-07/CBO-55410-MinimumWage2019.pdf

² National Conference of State Legislatures. (2020). State minimum wages: 2020 minimum wage by state. http://www.ncsl.org/research/ labor-and-employment/state-minimum-wage-chart.aspx More information about state variation is derived from individual state statutes. For additional information please refer to the Methods and Sources section of pn3policy.org

³ United States Department of Labor. (2020). State Minimum Wage Laws. https://www.dol.gov/agencies/whd/minimum-wage/state

⁴ National Conference of State Legislatures. (2020). State minimum wages: 2020 minimum wage by state. http://www.ncsl.org/research/ labor-and-employment/state-minimum-wage-chart.aspx. More information about state variation is derived from individual state statutes. For additional information please refer to the Methods and Sources section of pn3policy.org

⁵ Zipperer, B. (2018, June 13). The erosion of the federal minimum wage has increased poverty, especially for Black and Hispanic families. Economic Policy Institute. https://www.epi.org/publication/the-erosion-of-the-federal-minimum-wage-has-increased-poverty-especiallyfor-black-and-hispanic-families/

⁶ Cooper, D. (2019, Feb. 5). Raising the federal minimum wage to \$15 by 2024 would lift pay for nearly 40 million workers. Economic Policy Institute. https://www.epi.org/publication/raising-the-federal-minimum-wage-to-15-by-2024-would-lift-pay-for-nearly-40-million-workers/

⁷ United States Congressional Budget Office (CBO). (2019). *The effects on employment and family income of increasing the federal minimum wage*. https://www.cbo.gov/system/files/2019-07/CBO-55410-MinimumWage2019.pdf

⁸ Cooper, D. (2016, Feb. 3). Balancing paychecks and public assistance: How higher wages could strengthen what government can do [Briefing paper #418]. Economic Policy Institute. https://www.epi.org/files/2015/balancing-paychecks-and-public-assistance.pdf

⁹ Huizar, L. & Gebreselassie, T. (2016). What a \$15 minimum wage means for women and workers of color [Policy brief]. National Employment Law Project. https://s27147.pcdn.co/wp-content/uploads/Policy-Brief-15-Minimum-Wage-Women-Workers-of-Color.pdf

¹⁰ Derenoncourt, E., & Montialoux, C. (2019). *Minimum wages and racial inequality.* Princeton University and the University of California, Berkeley. http://www.clairemontialoux.com/files/DM2019.pdf

¹¹ Huizar, L. & Gebreselassie, T. (2016). What a \$15 minimum wage means for women and workers of color [Policy brief]. National Employment Law Project. https://s27147.pcdn.co/wp-content/uploads/Policy-Brief-15-Minimum-Wage-Women-Workers-of-Color.pdf

¹² Lathrop, Y. (2019, December 23) Raises From coast to coast in 2020: Minimum wage will increase in record-high 47 states, cities, and counties this January. National Employment Law Project. https://raisetheminimumwage.com/resource/raises-from-coast-to-coast-in-2020/

¹³ McIntosh, M., & Littler C. T. (2020). Virginia Increases its minimum wage to \$12 per hour by 2020. JD Supra. https://www.jdsupra.com/ legalnews/virginia-increases-its-minimum-wage-to-51692

¹⁴ Information about state variation is derived from individual state statutes. For additional information, please refer to the Methods and Sources section of pn3policy.org

¹⁵ Allegretto, S., Godøy, A., Nadler, C., & Reich, N. (2018, September 6). *The new wave of local minimum wage policies: Evidence from six cities* [Policy report]. Center on Wage and Employment Dynamics, University of California, Berkeley. https://irle.berkeley.edu/files/2018/09/The-New-Wave-of-Local-Minimum-Wage-Policies.pdf

¹⁶ Information about state variation is derived from individual state statutes. For additional information please refer to the Methods and Sources section of pn3policy.org.

¹⁷ Cesario, L. (2019). States weigh options on subminimum wages for workers with disabilities. The NCSL Blog: National Conference of State Legislatures. https://www.ncsl.org/blog/2019/08/28/states-weigh-options-on-subminimum-wages-for-workers-with-disabilities. aspx

¹⁸ United States Department of Labor. (2020). Minimum wages for tipped employees. https://www.dol.gov/agencies/whd/state/ minimum-wage/tipped

State Earned Income Tax Credit

¹ Urban Institute & Brookings Institution. (2020). What is the earned income tax credit? https://www.taxpolicycenter.org/briefing-book/ what-earned-income-tax-credit

² Johnson, N. & Williams, E. (2011). *A hand up: How state earned income tax credits help working families escape poverty in 2011.* Center on Budget and Policy Priorities. https://www.cbpp.org/sites/default/files/atoms/files/4-18-11sfp.pdf

³ Center on Budget and Policy Priorities. (2019). *Policy basics: The earned income tax credit*. https://www.cbpp.org/sites/default/files/atoms/ files/policybasics-eitc.pdf

⁴ Center on Budget and Policy Priorities. (2019). *Policy basics: The earned income tax credit*. https://www.cbpp.org/sites/default/files/atoms/ files/policybasics-eitc.pdf

⁵ National Center for Children in Poverty. (n.d.). United States: Demographics of low-income children. http://www.nccp.org/profiles/US_profile_6.html

⁶ Zippel, C. (2017). *Policy brief: DC's earned income tax credit.* Fiscal Policy Institute. https://www.dcfpi.org/wp-content/uploads/2017/09/ DC-EITC-Policy-Brief-2017.pdf

⁷ New York State. (2019). Department of Taxation and Finance. *Noncustodial parent earned income credit*. https://www.tax.ny.gov/pit/credits/nceic.htm

⁸ Argueza, M. (2020, July 3). California approves a tax credit to more low-income families, including undocumented workers. *Monterey County Weekly*. http://www.montereycountyweekly.com/blogs/california-approves-a-tax-credit-to-more-low-income-families-including-undocumented-workers/article_6caa80ca-bcbd-11ea-a8ef-b3fl9085c6d9.html

⁹ Reisman, N. (2020, June 29). Bill would expand earned income tax credit as pandemic recession will likely linger. *Spectrum News*. https://spectrumlocalnews.com/nys/central-ny/ny-state-of-politics/2020/06/29/bill-would-expand-the-earned-income-tax-credit-

¹⁰ A10522, 116th biennium, 2019-2020 Reg. Sess.(New York 2020) https://www.nysenate.gov/legislation/bills/2019/a10522

¹¹ Zippel, C. (2017). *Policy brief: DC's earned income tax credit*. Fiscal Policy Institute. https://www.dcfpi.org/wp-content/uploads/2017/09/ DC-EITC-Policy-Brief-2017.pdf

¹² New York State: Department of Taxation and Finance. (2019). *Noncustodial parent earned income credit*. https://www.tax.ny.gov/pit/ credits/nceic.htm

Comprehensive Screening and Referral Programs

¹ Shonkoff, J. (2017). Breakthrough impacts: What science teaches us about supporting early childhood development. *Young Children*, 72(2), 8–16. https://www.jstor.org/stable/90004117?seq=1

² Family Connects International. (2019). Family Connects: Frequently asked questions. http://www.familyconnects.org/faq

³ Healthy Steps & Zero to Three. (2019). Healthy Steps: Frequently asked questions. https://www.healthysteps.org/article/ preview/5118ad75-b1d0-4755-a66e-c08234054188#13

⁴ Shonkoff, J. (2017). Breakthrough impacts: What science teaches us about supporting early childhood development. *Young Children*, 72(2), 8–16. https://www.jstor.org/stable/90004117?seq=1

⁵ Hagan, J.F., Shaw, J.S. & Duncan, P.M. (2017). Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. *American Academy of Pediatrics*. https://brightfutures.aap.org/materials-and-tools/guidelines-and-pocket-guide/Pages/default.aspx

⁶ Dodge, K. A., Goodman, W. B., Murphy, R. A., O'Donnell, K., & Sato, J. (2013). Randomized controlled trial of universal postnatal nurse home visiting: Impact on emergency care. *Pediatrics*, *132*(Supplement 2), S140–S146. https://doi.org/10.1542/peds.2013-1021M

⁷ Dodge, K. A., Goodman, W. B., Murphy, R. A., O'Donnell, K., & Sato, J. (2013). Randomized controlled trial of universal postnatal nurse home visiting: Impact on emergency care. *Pediatrics*, 132(Supplement 2), S140–S146. https://doi.org/10.1542/peds.2013-1021M

⁸ Goodman, W. B., Dodge, K. A., Bai, Y., O'Donnell, K. J., & Murphy, R. A. (2019). Randomized controlled trial of Family Connects: Effects on child emergency medical care from birth to 24 months. *Development and Psychopathology*, 31(5), 1863–1872. https://doi.org/10.1017/ S0954579419000889

⁹ Caughy, M. O., Miller, T. L., Genevro, J. L., Huang, K.-Y., & Nautiyal, C. (2003). The effects of Healthy Steps on discipline strategies of parents of young children. Journal of Applied Developmental Psychology, 24(5), 517–534. https://doi.org/10.1016/j.appdev.2003.08.004

¹⁰ Caughy, M. O., Huang, K.-Y., Miller, T., & Genevro, J. L. (2004). The effects of the Healthy Steps for Young Children Program: Results from observations of parenting and child development. *Early Childhood Research Quarterly*, 19(4), 611–630. https://doi.org/10.1016/j. ecresq.2004.10.004

¹¹ Dodge, K. A., Goodman, W. B., Murphy, R. A., O'Donnell, K., & Sato, J. (2013). Randomized controlled trial of universal postnatal nurse home visiting: Impact on emergency care. *Pediatrics*, 132(Supplement 2), S140–S146. https://doi.org/10.1542/peds.2013-1021M

¹² Goodman, W. B., Dodge, K. A., Bai, Y., O'Donnell, K. J., & Murphy, R. A. (2019). Randomized controlled trial of Family Connects: Effects on child emergency medical care from birth to 24 months. *Development and Psychopathology*, 31(5), 1863–1872. https://doi.org/10.1017/ S0954579419000889

¹³ Santa Barbara County Education Office. (2020). Welcome Every Baby Family Connects services during COVID-19. https://www.sbceo. org/site/Default.aspx?PageID=395

¹⁴ Center for Child & Family Health. (n.d.). Family connects Durham. https://www.ccfhnc.org/programs/family-connects-durham/

¹⁵ Hennepin Healthcare. (2020). https://www.hennepinhealthcare.org/make-an-appointment/

¹⁶ The National Child Traumatic Stress Network. (2020). *Parent/caregiver guide to helping families cope with the Coronavirus disease 2019 (COVID-19).* https://www.chail.org/Images/webpages/NCTSN_Parent_guide_fo_helping_families_cope_with_COVID-19.pdf

¹⁷ Family Connects Texas. (2020). COVID-19 support for parents. https://www.familyconnectstexas.org/covid19-support-for-parents

¹⁸ Healthy Steps. (2020). Telehealth and Remote Service Delivery Resources amid COVID-19. https://www.healthysteps.org/article/ telehealth-and-remote-service-delivery-resources-amid-covid-19-162

Child Care Subsidies

¹ Child Care and Development Fund, 45 C.F.R. § 98.20 (2019). https://www.govinfo.gov/app/details/CFR-2019-title45-vol1/CFR-2019-title45-vol1-part98/summary

² American Academy of Pediatrics Committee on Early Childhood, Adoption, and Dependent Care. (2005). Quality early education and child care from birth to kindergarten. *Pediatrics*, *115*(1), 187–191. Gale OneFile: Health and Medicine. https://doi.org/10.1542/peds.2004-2213

³ Bradley, R. H., & Vandell, D. (2007). Child care and the well-being of children. *Archives of Pediatrics & Adolescent Medicine, 161*(7), 669-676. https://doi.org/10.1001/archpedi.161.7.669

⁴ Schmit, S. (2019). CCDBG: Helping working families afford child care. CLASP. https://www.clasp.org/publications/report/brief/ccdbghelping-working-families-afford-child-care

⁵ Child Care Aware of America. (2019). *The US and the high price of child care: 2019*. Child Care Aware of America. https://usa.childcareaware. org/priceofcare; Estimate uses average of program-weighted averages (method #3, see p. 44). Caution should be used comparing and interpreting price figures nationally; local context should be considered.

⁶ Office of Child Care, Administration for Children and Families. (2019, February 6). Characteristics of families served by the Child Care and Development Fund (CCDF) based on preliminary FY2018 data. Office of Child Care | ACF. https://www.acf.hhs.gov/occ/resource/ characteristics-of-families-served-by-child-care-and-development-fund-ccdf

⁷ Office of Child Care, Administration for Children and Families. (2019, February 6). Characteristics of families served by the Child Care and Development Fund (CCDF) based on preliminary FY2018 data. Office of Child Care | ACF. https://www.acf.hhs.gov/occ/resource/ characteristics-of-families-served-by-child-care-and-development-fund-ccdf

⁸ Ros Pilarz, A. (2018). Child care subsidy programs and child care choices: Effects on the number and type of arrangements. *Children and Youth Services Review*, 95, 160–173. https://doi.org/10.1016/j.childyouth.2018.10.013

⁹ Washbrook, E., Ruhm, C. J., Waldfogel, J., & Han, W.-J. (2011). Public policies, women's employment after childbearing, and child wellbeing. *The B.E. Journal of Economic Analysis & Policy*, *11*(1). https://doi.org/10.2202/1935-1682.2938

¹⁰ Weinraub, M., Shlay, A. B., Harmon, M., & Tran, H. (2005). Subsidizing child care: How child care subsidies affect the child care used by low-income African American families. *Early Childhood Research Quarterly*, 20(4), 373–392. https://doi.org/10.1016/j.ecresq.2005.10.001

¹¹ Hill, Z., Gennetian, L., & Mendez, J. (2019). *How state policies might affect Hispanic families' access to and use of Child Care and Development Fund subsidies* (Report 2019-04). National Research Center on Hispanic Children & Families. https://www.hispanicresearchcenter.org/ research-resources/how-state-policies-might-affect-hispanic-families-access-to-and-use-of-child-care-and-development-fund-subsidies

¹² Hill, Z., Gennetian, L., & Mendez, J. (2019). *How state policies might affect Hispanic families' access to and use of Child Care and Development Fund subsidies* (Report 2019-04). National Research Center on Hispanic Children & Families. https://www.hispanicresearchcenter.org/ research-resources/how-state-policies-might-affect-hispanic-families-access-to-and-use-of-child-care-and-development-fund-subsidies

¹³ Alliance for Early Success. (2020). *Child Care Subsidy and Payment Changes in Response to COVID-19.* https://legacy.earlysuccess.org/sites/ default/files/ChangestoChildCarePayments20200424.pdf

¹⁴ ChildCare Aware of America. (2020). State by State Resources. https://www.childcareaware.org/resources/map/

¹⁵ United States Department of Health & Human Services - Administration for Children & Families, Office of Child Care. (2019, December 3). FY 2018 Preliminary Data Table 2 - Percent of Children Served by Payment Method. https://www.acf.hhs.gov/occ/resource/fy-2018-preliminary-data-table-2

¹⁶ National Center on Subsidy Innovation and Accountability. (2018). *CCDF Family Co-payments*. Office of Child Care, Administration for Children and Families, U.S. Department of Health and Human Services. https://childcareta.acf.hhs.gov/sites/default/files/public/family_co-payment_brief_0.pdf

¹⁷ Office of Inspector General, U.S. Department of Health and Human Services. (2019). *States' Payment Rates Under the Child Care and Development Fund Program Could Limit Access to Child Care Providers (OEI-03-15-00170; 08/19)* (OEI-03-15-00170). Office of Inspector General, U.S. Department of Health and Human Services. https://oig.hhs.gov/oei/reports/oei-03-15-00170.pdf

¹⁸ Herrmann, M., Kirby, G., Deutsch, J., Wolfendale, C., Esposito, A. M., Caronongan, P. C., & Dragoset, L. (2019). *Quality ratings and system characteristics: Patterns in the round 1 Race to the Top - Early Learning Challenge states* (NCEE 2019-4004). National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, US Department of Education. https://eric.ed.gov/?id=ED594512

¹⁹ The Build Initiative & Child Trends. (2019). A Catalog and Comparison of Quality Initiatives (Data System). Retrieved July 13, 2020, from http://qualitycompendium.org/

Group Prenatal Care

¹ American College of Obstetricians and Gynecologists. (2018). Group prenatal care: ACOG committee opinion No. 731. *Obstetrics & Gynecology*; 131: e104–8. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/03/group-prenatal-care

² National Institutes of Health. (2017, January 31). What is prenatal care and why is it important? https://www.nichd.nih.gov/health/topics/ pregnancy/conditioninfo/prenatal-care

³ American College of Obstetricians and Gynecologists. (2018). Group prenatal care: ACOG committee opinion No. 731. *Obstetrics & Gynecology*; 131: e104–8. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/03/group-prenatal-care

⁴ Ickovics, J. R., Kershaw, T. S., Westdahl, C., Magriples, U., Massey, Z., Reynolds, H., & Rising, S. S. (2007). Group prenatal care and perinatal outcomes: A randomized controlled trial. *Obstetrics and Gynecology*, 110(2 Pt 1), 330-339. dx.doi.org/10.1097/01. AOG.0000275284.24298.23

⁵ National Center for Health Statistics, 2016-2018 final natality data. Retrieved July 15, 2020, from www.marchofdimes.org/peristats

⁶ Mehra, R., Keene, D. E., Kershaw, T. S., Ickovics, J. R., & Warren, J. L. (2019). Racial and ethnic disparities in adverse birth outcomes: Differences by racial residential segregation. *SSM - Population Health*, 8. https://doi.org/10.1016/j.ssmph.2019.100417

⁷ American College of Obstetricians and Gynecologists. (2018). Group prenatal care: ACOG committee opinion No. 731. *Obstetrics & Gynecology*; 131: e104–8. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/03/group-prenatal-care

⁸ American College of Obstetricians and Gynecologists. (2018). Group prenatal care: ACOG committee opinion No. 731. *Obstetrics & Gynecology*; 131: e104–8. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/03/group-prenatal-care

⁹ Centering Healthcare Institute. (n.d.). Locate Centering Sites. https://centeringhealthcare.secure.force.com/WebPortal/ LocateCenteringSitePage

¹⁰ Centering Health Institute. (2020). Coronavirus (COVID-19) and Centering. https://www.centeringhealthcare.org/covid-19

¹¹ University of Michigan. (2020). Redesigning Prenatal Care During the COVID-19 Pandemic. https://labblog.uofmhealth.org/rounds/ redesigning-prenatal-care-during-covid-19-pandemic

¹² As of June 8, 2020. State health department websites and proposed and passed state legislation

¹³ Ickovics, J.R., Kershaw, T.S., Westdahl, C., Magriples, U., Massey, Z., Reynolds, H., & Rising, S.S. (2007). Group prenatal care and perinatal outcomes: A randomized controlled trial. *Obstetrics and Gynecology*, 110(2 Pt 1), 330-339. dx.doi.org/10.1097/01. AOG.0000275284.24298.23

¹⁴ Kotelchuck, M. (1994). An evaluation of the Kessner Adequacy of Prenatal Care Index and a proposed Adequacy of Prenatal Care Utilization Index. *American Journal of Public Health, 84 (9)*, 1414-1420. https://ajph.aphapublications.org/doi/10.2105/AJPH.84.9.1414

Evidence-Based Home Visiting Programs

¹ Sandstrom, H. (2019). Early childhood home visiting programs and health. *Health Affairs*. https://www.healthaffairs.org/do/10.1377/ hpb20190321.382895/full/

² Bronfenbrenner, U. (1992). The ecology of human development. In R. Vasta (Ed.) *Six Theories of Child Development* (pp. 187–249). London: Kingsley Publishers

³ Sweet, M. A. & Appelbaum, M. I. (2004). Is home-visiting an effective strategy? A meta-analytic review of home visiting programs for families with young children. *Child Development, 75(5),* 1435–1456. https://doi.org/10.1111/j.1467-8624.2004.00750.x

⁴ National Scientific Council on the Developing Child. (2015). *Supportive relationships and active skill-building strengthen the foundations of resilience* [Working paper no.13]. https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2015/05/The-Science-of-Resilience2.pdf

⁵ Nievar, M. A., Van Egeren, L. A., & Pollard, S. (2010). A meta-analysis of home visiting programs: Moderators of improvements in maternal behavior. *Infant Mental Health Journal*, *31*, 499–520. https://doi.org/10.1002/imhj.20269

⁶ Sweet, M. A. & Appelbaum, M. I. (2004). Is home-visiting an effective strategy? A meta-analytic review of home visiting programs for families with young children. *Child Development, 75(5),* 1435–1456. https://doi.org/10.1111/j.1467-8624.2004.00750.x

⁷ Casillas, K. L., Fauchier, A., Derkash, B. T., & Garrido, E. F. (2016). Implementation of evidence-based home visiting programs aimed at reducing child maltreatment: A meta-analytic review. *Child Abuse and Neglect*, 53, 64–80. https://doi.org/10.1016/j.chiabu.2015.10.009

⁸ Lee, H., Crowne, S. S., Estarziau, M., Kranker, K., Michalopoulos, C., Warren, A., Mijanovich, T., Filene, J., Duggan, A., & Knox, V. (2019). *The effects of home visiting on prenatal health, birth outcomes, and health care use in the first year of life: Final implementation and impact findings from the Mother and Infant Home Visiting Program Evaluation – Strong Start* (OPRE Report #2019-08). Office of Planning, Research & Evaluation. https://www.acf.hhs.gov/opre/resource/effects-home-visiting-prenatal-health-birth-outcomes-health-care-first-year-finalimplementation-impact-findings-strong-start

⁹ Filene, J. H., Kaminski, J. W., Valle, L. A., & Cachat, P. (2013). Components associated with home visiting program outcomes: A metaanalysis. *Pediatrics*, *132 Suppl 2* (0 2), S100–S109. https://doi.org/10.1542/peds.2013-1021H

¹⁰ Sweet, M. A. & Appelbaum, M. I. (2004). Is home-visiting an effective strategy? A meta-analytic review of home visiting programs for families with young children. *Child Development*, *75*(5), 1435–1456. https://doi.org/10.1111/j.1467-8624.2004.00750.x

¹¹ Casillas, K. L., Fauchier, A., Derkash, B. T., & Garrido, E. F. (2016). Implementation of evidence-based home visiting programs aimed at reducing child maltreatment: A meta-analytic review. *Child Abuse and Neglect*, 53, 64–80. https://doi.org/10.1016/j.chiabu.2015.10.009

¹² Filene, J. H., Kaminski, J. W., Valle, L. A., & Cachat, P. (2013). Components associated with home visiting program outcomes: A metaanalysis. *Pediatrics*, 132 Suppl 2 (0 2), S100–S109. https://doi.org/10.1542/peds.2013-1021H

¹³ Filene, J. H., Kaminski, J. W., Valle, L. A., & Cachat, P. (2013). Components associated with home visiting program outcomes: A metaanalysis. *Pediatrics*, *132 Suppl 2* (0 2), S100–S109. https://doi.org/10.1542/peds.2013-1021H

¹⁴ Home Visiting Applied Research Collaborative. (2020). COVID-19's early impact on home visiting. https://www.hvresearch.org/wp-content/ uploads/2020/04/COVID-19s-Early-Impact-on-Home-Visiting.pdf

¹⁵ National Conference of State Legislatures. (2019). Early care and education state budget actions FY 2019. http://www.ncsl.org/research/ human-services/early-care-and-education-state-budget-actions-fy-2019.aspx

Early Head Start

¹ Head Start Early Childhood Learning & Knowledge Center. (2018, July 12). Early Head Start programs. https://eclkc.ohs.acf.hhs.gov/ programs/article/early-head-start-programs

² Early Childhood Learning & Knowledge Center, Office of Head Start. (n.d.). About the Early Head Start program. https://eclkc.ohs.acf.hhs. gov/programs/article/about-early-head-start-program

³ Bronfenbrenner, U. (1979). The ecology of human development experiments by nature and design. Harvard University Press; Brofenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner (Ed.), Handbook of child psychology. Volume 1, Theoretical Models of Human Development (6th ed., pp. 793–828). John Wiley & Sons. http://ebookcentral.proquest.com/lib/utxa/detail. action?docID=258892

⁴ Raikes, H. H., Roggman, L. A., Peterson, C. A., Brooks-Gunn, J., Chazan-Cohen, R., Zhang, X., & Schiffman, R. F. (2014). Theories of change and outcomes in home-based Early Head Start programs. *Early Childhood Research Quarterly*, 29(4), 574–585. https://doi.org/10.1016/j. ecresq.2014.05.003

⁵ Sweet, M.A. & Appelbaum, M. I. (2004). Is home-visiting an effective strategy? A meta-analytic review of home visiting programs for families with young children. *Child Development, 75(5),* 1435-1456. doi:10.1111/j.1467-8624.2004.00750.x

⁶ National Scientific Council on the Developing Child. (2015). *Supportive relationships and active skill-building strengthen the foundations of resilience* [Working paper no.13]. https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2015/05/The-science-of-Resilience2.pdf

⁷ Burchinal, M., Magnuson, K., Powell, D., & Soliday Hong, S. L. (2015). Early child care and education. In (7th ed.). R. M. Lerner, M. H. Bornstein, & T. Leventhal (Vol. Eds.), Handbook of Child Psychology and Developmental Science: Vol. 4, (pp. 223–267). Hoboken, NJ: Wiley

⁸ American Academy of Pediatrics (AAP), American Public Health Association (APHA), National Resource Center for Health and Safety in Child Care and Early Education (NRC). (2019). *Caring for our children: National health and safety performance standards; Guidelines for early care and education programs.* 4th ed. Itasca, IL: American Academy of Pediatrics. https://nrckids.org/CFOC

⁹ Institute of Medicine. (2000). From Neurons to Neighborhoods: The Science of Early Childhood Development. The National Academies Press. https://doi.org/10.17226/9824

¹⁰ NICHD Early Child Care Research Network (ECCRN) (2002). Child-care structure → Process → Outcome: Direct and indirect effects of child-care quality on young children's development. *Psychological Science* 12(3), 199-206.

¹¹ Raikes, H. H., Vogel, C., & Love, J. M. (2013). IV. Family subgroups and impacts at ages 2, 3, and 5: Variability by race/ethnicity and demographic risk. *Monographs of the Society for Research in Child Development*, 78(1), 64–92. https://doi.org/10.1111/j.1540-5834.2012.00703.x

¹² Barnett, W.S., & Friedman-Krauss, A. H. (2016). State(s) of Head Start. National Institute for Early Education Research. http://nieer.org/ headstart. See Figure 16; these numbers have been adjusted for cost of living.

¹³ Coronavirus Aid, Relief, and Economic Security Act, H.R. 748, 116th Cong. (2020)

¹⁴ Head Start Early Learning & Knowledge Center. (2020). COVID-19 and the Head Start Community. https://eclkc.ohs.acf.hhs.gov/aboutus/coronavirus/responding-covid-19

¹⁵ Matthews, H., & Schmit, S. (2014). What state leaders should know about Early Head Start. CLASP. https://eric.ed.gov/?id=ED561734

¹⁶ Office of Head Start (n.d.) *The Head Start Enterprise System*. https://hses.ohs.acf.hhs.gov/. State level program indicator report for Early Head Start for all states and territories included in the Head Start Enterprise System

¹⁷ Office of Head Start (n.d.) *The Head Start Enterprise System*. https://hses.ohs.acf.hhs.gov/. State level program indicator report for Early Head Start for all states and territories included in the Head Start Enterprise System. Note: Includes program approaches with funded enrollment slots offered under EHS and EHS-CCP in regions 1 - 10 (including interim grants) in program year 2019. Does not include American Indian and Alaska Native (AIAN) or Migrant and Seasonal Head Start (MSHS) EHS or EHS-CCP grants

¹⁸ Early Childhood Learning & Knowledge Center, Office of Head Start. (n.d.). Early Head Start Program Options. Retrieved January 23, 2020, from https://eclkc.ohs.acf.hhs.gov/programs/article/early-head-start-program-options

¹⁹ Head Start Program Performance Standards, 45 C.F.R. Chapter XIII, Subchapter B §§ 1302.20-1320.24 (2016). https://eclkc.ohs.acf.hhs. gov/policy/45-cfr-chap-xiii

²⁰ Head Start Program Performance Standards, 45 C.F.R. Chapter XIII, Subchapter B §§ 1302.20-1320.24 (2016). https://eclkc.ohs.acf.hhs. gov/policy/45-cfr-chap-xiii

Early Intervention Services

¹ Dragoo, K. (2019). The Individuals with Disabilities Education Act (IDEA), Part C: Early Intervention for infants and toddlers with disabilities. Congressional Research Service. https://fas.org/sgp/crs/misc/R43631.pdf

² United States Federal Register. Vol. 76, No. 188. Sept. 28, 2011. https://www.govinfo.gov/content/pkg/FR-2011-09-28/pdf/2011-22783. pdf#page=112

³ Vail, C. O., Lieberman-Betz, R. G., & McCorkle, L. S. (2018). The Impact of Funding on Part C Systems: Is the Tail Wagging the Dog? *Journal of Early Intervention*, 40(3), 229–245. https://doi.org/10.1177/1053815118771388

⁴ United States Dept. of Education, Individuals with Disabilities Education Act. *Section 1431.* https://sites.ed.gov/idea/statute-chapter-33/ subchapter-iii/1431

⁵ United States Dept. of Education, Individuals with Disabilities Education Act. *Section 1431.* https://sites.ed.gov/idea/statute-chapter-33/ subchapter-iii/1431

⁶ Ramey, C., Bryant, D., Wasik, B., Sparling, J., Fendt, K., & LaVange, L. (1992). Infant Health and Development Program for low birth weight, premature infants: Program elements, family participation, and child intelligence. *Pediatrics*, *3*, 454–465. https://pediatrics.aappublications. org/content/89/3/454.long

⁷ Grant, R. & Isakson, E. (2013). Regional variation in early intervention utilization for children with developmental delay. *Journal of Early Intervention*, 17, 1252–1259. https://doi.org/10.1007/s10995-012-1119-3

⁸ US Dept. of Education (2020). IDEA Section 618 Data Products: State Level Data Files. Part C Child Count and Settings, 2018-2019. https://www2.ed.gov/programs/osepidea/618-data/state-level-data-files/index.html?utm_content=&utm_medium=email&utm_ name=&utm_source=govdelivery&utm_term=#bccee

⁹ Bruner, C., & Johnson, K. (2018). Federal spending on prenatal to three: Developing a public response to improving developmental trajectories and preventing inequities. Center for the Study of Social Policy. https://cssp.org/wp-content/uploads/2018/08/CSSP-Prenatal-to-Three.pdf

¹⁰ Greene, M., & Patra, K. (2016). Part C early intervention utilization in preterm infants: Opportunity for referral from a NICU follow-up clinic. *Research in Developmental Disabilities*, 53–54, 287–295. https://doi.org/10.1016/j.ridd.2016.02.016

¹¹ Advocates for Children of New York and Citizens' Committee for Children of New York, Inc. (2019). *Early inequities: How underfunding Early Intervention leaves low-income children of color behind*. https://www.cccnewyork.org/wp-content/uploads/2019/12/EI-Report-FINAL-12-4-19. pdf

¹² Feinberg, E., Silverstein, M., Donahue, S., & Bliss, R. (2011). The impact of race on participation in Part C Early Intervention services. *Journal of Developmental & Behavioral Pediatrics*, 32, 284–291. https://dx.doi.org/10.1097%2FDBP.0b013e3182142fbd

¹³ Emerald Consulting. (n.d.). Cost avoidance return on investment. Document provided to the Prenatal-to-3 Policy Impact Center by Maureen Greer, Executive Director at the IDEA Infant & Toddler Coordinators Association, via email on April 1, 2020

¹⁴ Emerald Consulting. (n.d.). Cost avoidance return on investment. Document provided to the Prenatal-to-3 Policy Impact Center by Maureen Greer, Executive Director at the IDEA Infant & Toddler Coordinators Association, via email on April 1, 2020

¹⁵ Feinberg, E., Silverstein, M., Donahue, S., & Bliss, R. (2011). The impact of race on participation in Part C Early Intervention services. *Journal of Developmental & Behavioral Pediatrics*, 32, 284–291. https://dx.doi.org/10.1097%2FDBP.0b013e3182142fbd

¹⁶ Texas Health and Human Services. (2020). Little Lives Early Childhood Intervention (ECI). https://littleliveseci.com/telehealth/

¹⁷ Fraser. (2020). Early Beginnings Telehealth. https://www.fraser.org/resources/early-beginnings-telehealth

¹⁸ Western Illinois University. *Illinois Part C Early Intervention Live Video Visits (i.e. El Teletherapy) during COVID-19 Pandemic.* (2020). http://www.wiu.edu/coehs/provider_connections/pdf/20200406livevideovisits.pdf

¹⁹ McManus, B., McCormick, M., Acevedo-Garcia, D., Ganz, M., & Hauser-Cram, P. (2009). The effect of state early intervention eligibility policy on participation among a cohort of young children with special health care needs. *Pediatrics, 124*, Supplement 4, S368. https://doi. org/10.1542/peds.2009-1255G

²⁰ Rosenberg, S., Robinson, C., Shaw, E., & Ellison, M. (2013). Part C Early Intervention for infants and toddlers: Percentage eligible versus served. *Pediatrics*, *131*, 38–46. https://doi.org/10.1542/peds.2012-1662

²¹ Grant, R. & Isakson, E. (2013). Regional variation in early intervention utilization for children with developmental delay. *Journal of Early Intervention*, *17*, 1252–1259. https://doi.org/10.1007/s10995-012-1119-3

Tables from Goal, Policy, and Strategy Profiles

GOAL: ACCESS TO NEEDED SERVICES

Prenatal-to-3 Outcomes and Rankings to Identify Gaps in Access to Needed Services by State

State	% Low-Income Women Uninsured	Rank	% Eligible Families with Children <18 Not Receiving SNAP	Rank	% Children <3 Not Receiving Developmental Screening	Rank
Alabama	31.8%	46	3.0%	3	61.9%	27
Alaska	26.2%	39	7.4%	25	53.7%	10
Arizona	24.0%	33	11.6%	40	66.1%	36
Arkansas	20.3%	29	6.6%	19	68.4%	43
California	15.9%	20	26.7%	51	67.7%	40
Colorado	16.5%	21	17.1%	47	42.6%	3
Connecticut	14.4%	18	11.7%	41	53.1%	8
Delaware	11.1%	10	14.3%	45	70.6%	46
District of Columbia	6.4%	3	7.5%	26	63.5%	32
Florida	32.1%	47	8.7%	30	72.9%	49
Georgia	36.6%	50	5.9%	16	50.2%	5
Hawaii	8.4%	4	14.3%	45	61.9%	27
Idaho	28.5%	43	9.4%	34	69.8%	45
Illinois	18.0%	26	8.2%	29	57.4%	18
Indiana	21.5%	30	4.7%	7	68.0%	42
lowa	10.1%	6	6.5%	18	60.7%	23
Kansas	28.0%	41	10.9%	37	54.3%	11
Kentucky	11.1%	10	5.6%	14	67.2%	38
Louisiana	13.7%	16	2.9%	2	72.4%	47
Maine	18.2%	27	7.3%	24	53.3%	9
Maryland	16.5%	21	11.2%	38	56.0%	13
Massachusetts	5.5%	2	13.0%	43	49.7%	4
Michigan	11.0%	9	3.9%	5	65.2%	35
Minnesota	9.9%	5	13.1%	44	38.8%	1

TABLES FROM GOAL, POLICY, AND STRATEGY PROFILES

(continued)

State	% Low-Income Women Uninsured	Rank	% Eligible Families with Children <18 Not Receiving SNAP	Rank	% Children <3 Not Receiving Developmental Screening	Rank
Mississippi	34.1%	48	4.7%	7	76.1%	51
Missouri	27.4%	40	3.2%	4	67.6%	39
Montana	17.7%	25	7.6%	27	59.7%	22
Nebraska	29.5%	44	5.6%	14	67.8%	41
Nevada	25.4%	36	20.5%	49	68.8%	44
New Hampshire	10.6%	8	11.5%	39	56.0%	13
New Jersey	25.9%	38	21.2%	50	61.9%	27
New Mexico	19.5%	28	6.8%	22	57.6%	19
New York	11.2%	12	8.1%	28	73.7%	50
North Carolina	31.1%	45	9.5%	35	51.1%	7
North Dakota	17.2%	24	9.1%	33	61.2%	25
Ohio	13.2%	15	4.7%	7	58.5%	20
Oklahoma	36.2%	49	5.2%	11	63.4%	31
Oregon	17.0%	23	7.1%	23	39.5%	2
Pennsylvania	11.9%	14	5.2%	11	65.1%	34
Rhode Island	10.3%	7	6.0%	17	63.3%	30
South Carolina	24.0%	33	6.6%	19	61.7%	26
South Dakota	28.2%	42	5.0%	10	56.2%	16
Tennessee	23.0%	32	2.0%	1	55.3%	12
Texas	47.7%	51	19.8%	48	58.9%	21
Utah	22.6%	31	8.7%	30	61.0%	24
Vermont	5.4%	1	9.8%	36	50.8%	6
Virginia	25.2%	35	5.3%	13	63.9%	33
Washington	14.8%	19	8.7%	30	66.1%	36
West Virginia	11.6%	13	3.9%	5	56.1%	15
Wisconsin	14.1%	17	6.7%	21	57.0%	17
Wyoming	25.8%	37	11.7%	41	72.5%	48
National	22.9%		11.8%		62.0%	

Sources:

% Low-Income Women Uninsured: 2018 American Community Survey (ACS), 1-Year Public Use Microdata Sample (PUMS).

% Eligible Families with Children <18 Not Receiving SNAP: 2016-2018, Urban Institute's TRIM3 project.

% Children <3 Not Receiving Developmental Screening: Combined estimates from the 2016-2018 National Survey for Children's Health.

Note: Italicized estimates should be interpreted with caution. For additional information, please refer to the Methods and Sources section of pn3policy.org.

GOAL: PARENTS' ABILITY TO WORK

Prenatal-to-3 Outcome and Ranking to Identify Gaps in Parents' Ability to Work by State

	% Children <3 Without Any			% Children <3 Without Any	
State	Full-Time Working Parent	Rank	State	Full-Time Working Parent	Rank
Alabama	32.2%	45	Montana	20.8%	10
Alaska	32.6%	47	Nebraska	16.8%	1
Arizona	28.1%	33	Nevada	28.6%	37
Arkansas	32.2%	45	New Hampshire	26.4%	28
California	27.7%	32	New Jersey	22.7%	14
Colorado	20.5%	8	New Mexico	33.1%	48
Connecticut	27.3%	29	New York	28.1%	33
Delaware	22.5%	13	North Carolina	28.1%	33
District of Columbia	35.5%	50	North Dakota	19.1%	7
Florida	26.2%	26	Ohio	28.8%	38
Georgia	27.4%	30	Oklahoma	26.2%	26
Hawaii	29.5%	41	Oregon	23.0%	16
Idaho	21.3%	11	Pennsylvania	24.4%	21
Illinois	25.0%	23	Rhode Island	30.5%	42
Indiana	26.0%	25	South Carolina	29.2%	40
lowa	17.0%	2	South Dakota	17.2%	3
Kansas	21.6%	12	Tennessee	29.0%	39
Kentucky	31.3%	43	Texas	27.5%	31
Louisiana	31.6%	44	Utah	18.7%	6
Maine	20.7%	9	Vermont	25.4%	24
Maryland	22.7%	14	Virginia	23.3%	17
Massachusetts	24.1%	20	Washington	24.4%	21
Michigan	28.5%	36	West Virginia	37.0%	51
Minnesota	17.8%	5	Wisconsin	17.4%	4
Mississippi	33.9%	49	Wyoming	23.8%	19
Missouri	23.7%	18	National	26.3%	

Source: 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS) Estimates.

Note: Italicized estimates should be interpreted with caution. For additional information, please refer to the Methods and Sources section of pn3policy.org.

GOAL: SUFFICIENT HOUSEHOLD RESOURCES

Prenatal-to-3 Outcomes and Rankings to Identify Gaps in Sufficient Household Resources by State

State	% Children <3 in Poverty	Rank	% Crowded Housing	Rank	% Food Insecure	Rank
Alabama	29.9%	48	12.8%	10	8.2%	35
Alaska	14.5%	12	22.1%	42	7.0%	27
Arizona	21.9%	36	28.2%	48	10.4%	48
Arkansas	30.6%	50	16.9%	34	7.9%	31
California	17.2%	24	35.0%	50	5.9%	18
Colorado	11.4%	3	14.9%	22	5.0%	11
Connecticut	15.3%	16	16.8%	33	9.0%	41
Delaware	18.2%	26	18.1%	37	5.9%	18
District of Columbia	20.2%	32	25.3%	44	5.8%	17
Florida	20.9%	33	20.7%	39	7.6%	30
Georgia	23.3%	40	15.4%	28	6.8%	24
Hawaii	16.7%	23	38.1%	51	5.0%	11
Idaho	15.9%	20	14.5%	20	6.3%	22
Illinois	16.5%	22	15.2%	25	8.5%	37
Indiana	21.7%	35	14.2%	17	8.0%	33
Iowa	14.7%	13	11.1%	3	4.4%	9
Kansas	18.5%	27	15.3%	26	0.9%	1
Kentucky	26.5%	45	12.3%	7	9.7%	47
Louisiana	27.0%	46	16.6%	31	8.6%	38
Maine	12.7%	6	14.4%	18	4.2%	6
Maryland	11.3%	2	15.4%	28	5.3%	14
Massachusetts	12.9%	8	13.2%	13	5.1%	13
Michigan	22.1%	37	12.5%	8	8.1%	34
Minnesota	12.1%	5	12.8%	10	6.9%	25
Mississippi	30.8%	51	16.7%	32	7.2%	29
Missouri	19.5%	30	15.1%	23	9.4%	44
Montana	13.8%	10	12.1%	6	6.1%	21
Nebraska	15.1%	14	13.4%	14	4.3%	7

TABLES FROM GOAL, POLICY, AND STRATEGY PROFILES

(continued)

State	% Children <3 in Poverty	Rank	% Crowded Housing	Rank	% Food Insecure	Rank
Nevada	19.2%	29	27.7%	46	8.8%	40
New Hampshire	12.7%	6	13.8%	15	4.3%	7
New Jersey	16.1%	21	22.0%	41	4.9%	10
New Mexico	30.3%	49	27.9%	47	13.1%	51
New York	20.0%	31	31.2%	49	7.9%	31
North Carolina	21.6%	34	15.1%	23	9.0%	41
North Dakota	13.1%	9	11.2%	4	5.9%	18
Ohio	23.6%	43	12.5%	8	9.0%	41
Oklahoma	23.5%	41	17.0%	35	12.6%	50
Oregon	19.0%	28	24.6%	43	7.0%	27
Pennsylvania	17.3%	25	10.6%	2	8.7%	39
Rhode Island	22.4%	39	11.7%	5	9.4%	44
South Carolina	23.5%	41	14.5%	20	0.9%	1
South Dakota	15.3%	16	15.8%	30	3.3%	4
Tennessee	27.7%	47	13.9%	16	10.4%	48
Texas	22.3%	38	25.5%	45	6.9%	25
Utah	10.4%	1	17.5%	36	3.0%	3
Vermont	11.9%	4	9.0%	1	3.5%	5
Virginia	15.5%	18	14.4%	18	5.7%	15
Washington	14.4%	11	21.1%	40	5.7%	15
West Virginia	26.4%	44	12.9%	12	9.6%	46
Wisconsin	15.5%	18	15.3%	26	8.3%	36
Wyoming	15.1%	14	18.7%	38	6.5%	23
National	19.5%		20.4%		7.2%	

Sources:

Child Poverty and Crowded Housing: 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS) Estimates.

Food Insecurity: American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS) Estimates.

Note: Italicized estimates should be interpreted with caution. For additional information, please refer to the Methods and Sources section of pn3policy.org.

GOAL: HEALTHY AND EQUITABLE BIRTHS

Prenatal-to-3 Outcomes and Rankings to Identify Gaps in Healthy and Equitable Births by State

% Preterm	Rank	% Low Birthweight	Rank	# of Infant Deaths per 1,000 Births	Rank
12.5%	49	10.7%	49	7.0	44
9.3%	14	5.9%	1	5.9	26
9.5%	19	7.6%	16	5.6	20
11.6%	47	9.4%	42	7.5	49
8.8%	6	7.0%	9	4.2	3
9.2%	13	9.4%	42	4.7	8
9.4%	15	7.6%	16	4.2	3
9.6%	23	8.9%	37	5.8	23
10.1%	30	10.0%	47	6.9	41
10.3%	34	8.7%	33	6.0	29
11.5%	46	10.1%	48	7.0	44
10.3%	34	8.3%	26	6.8	39
9.0%	9	7.3%	13	5.1	12
10.7%	39	8.5%	29	6.5	36
10.2%	32	8.1%	23	6.8	39
9.9%	27	6.9%	7	5.1	12
9.5%	19	7.4%	14	6.5	36
11.3%	43	8.9%	37	5.8	23
13.0%	50	10.8%	50	7.6	50
8.6%	5	7.2%	11	5.4	16
10.2%	32	8.8%	36	6.1	30
8.9%	7	7.6%	16	4.2	3
10.0%	29	8.5%	29	6.2	33
8.9%	7	6.9%	7	5.1	12
14.2%	51	12.1%	51	8.3	51
10.7%	39	8.7%	33	6.3	34
9.1%	12	7.4%	14	4.8	10
10.5%	38	7.6%	16	5.8	23
	% Preterm 12.5% 9.3% 9.5% 11.6% 8.8% 9.2% 9.4% 9.6% 10.3% 10.3% 10.3% 10.3% 10.3% 10.3% 10.3% 10.3% 10.3% 10.3% 10.3% 10.2% 9.9% 9.5% 11.3% 13.0% 8.6% 10.2% 8.9% 10.2% 8.9% 10.2% 9.1%	% Preterm Rank 12.5% 49 9.3% 14 9.5% 19 11.6% 47 8.8% 6 9.2% 13 9.4% 15 9.6% 23 10.1% 30 10.3% 34 10.3% 34 10.3% 34 9.0% 9 10.7% 39 10.7% 32 9.0% 27 9.5% 19 10.2% 32 9.9% 27 9.5% 19 11.3% 43 13.0% 50 8.6% 5 10.2% 32 8.9% 7 10.0% 29 8.9% 7 14.2% 51 10.7% 39 9.1% 12 10.5% 38	% Preterm Rank % Low Birthweight 12.5% 49 10.7% 9.3% 14 5.9% 9.5% 19 7.6% 11.6% 47 9.4% 8.8% 6 7.0% 9.2% 13 9.4% 9.4% 15 7.6% 9.4% 15 7.6% 9.4% 30 10.0% 10.1% 30 10.0% 10.3% 34 8.7% 10.3% 34 8.3% 9.0% 9 7.3% 10.7% 39 8.5% 10.7% 39 8.5% 10.7% 39 8.5% 10.7% 32 8.1% 9.9% 27 6.9% 13.0% 50 10.8% 13.0% 50 10.8% 8.6% 5 7.2% 10.2% 32 8.8% 8.9% 7 7.6% <t< td=""><td>% Preterm Rank % Low Birthweight Rank 12.5% 49 10.7% 49 9.3% 14 5.9% 1 9.5% 19 7.6% 16 11.6% 47 9.4% 42 8.8% 6 7.0% 9 9.2% 13 9.4% 42 9.4% 15 7.6% 16 9.6% 23 8.9% 37 10.3% 34 8.7% 33 11.5% 46 10.1% 48 10.3% 34 8.3% 26 9.0% 9 7.3% 13 10.7% 39 8.5% 29 10.2% 32 8.1% 23 9.9% 27 6.9% 7 9.5% 19 7.4% 14 11.3% 43 8.9% 36 8.6% 5 7.2% 11 10.2% 32 <</td><td>No. PretermRank% Low BirthweightRank# of Infant Deaths per 1,000 Births12,5%4910.7%497.09,3%145.9%15.99,5%197.6%165.611.6%479.4%427.58.8%67.0%94.29.2%139.4%424.79.4%157.6%164.29.6%238.9%375.810.1%3010.0%476.910.3%348.7%336.011.5%4610.1%487.010.3%348.3%266.89.0%97.3%135.110.7%398.5%296.510.2%328.1%236.89.9%276.9%75.113.0%507.6%115.413.0%507.6%115.410.2%328.8%366.113.0%507.6%164.210.0%298.5%296.28.9%76.9%75.113.0%507.6%164.210.0%298.5%296.28.9%76.9%75.113.0%507.6%164.214.2%5112.1%518.310.7%398.7%<</td></t<>	% Preterm Rank % Low Birthweight Rank 12.5% 49 10.7% 49 9.3% 14 5.9% 1 9.5% 19 7.6% 16 11.6% 47 9.4% 42 8.8% 6 7.0% 9 9.2% 13 9.4% 42 9.4% 15 7.6% 16 9.6% 23 8.9% 37 10.3% 34 8.7% 33 11.5% 46 10.1% 48 10.3% 34 8.3% 26 9.0% 9 7.3% 13 10.7% 39 8.5% 29 10.2% 32 8.1% 23 9.9% 27 6.9% 7 9.5% 19 7.4% 14 11.3% 43 8.9% 36 8.6% 5 7.2% 11 10.2% 32 <	No. PretermRank% Low BirthweightRank# of Infant Deaths per 1,000 Births12,5%4910.7%497.09,3%145.9%15.99,5%197.6%165.611.6%479.4%427.58.8%67.0%94.29.2%139.4%424.79.4%157.6%164.29.6%238.9%375.810.1%3010.0%476.910.3%348.7%336.011.5%4610.1%487.010.3%348.3%266.89.0%97.3%135.110.7%398.5%296.510.2%328.1%236.89.9%276.9%75.113.0%507.6%115.413.0%507.6%115.410.2%328.8%366.113.0%507.6%164.210.0%298.5%296.28.9%76.9%75.113.0%507.6%164.210.0%298.5%296.28.9%76.9%75.113.0%507.6%164.214.2%5112.1%518.310.7%398.7%<

(continued)

TABLES FROM GOAL, POLICY, AND STRATEGY PROFILES

(continued)

					# of lafe at Death a	
State	% Preterm	Rank	% Low Birthweight	Rank	per 1,000 Births	Rank
Nevada	10.1%	30	8.7%	33	6.1	30
New Hampshire	8.3%	2	6.8%	6	3.6	1
New Jersey	9.5%	19	7.9%	22	3.9	2
New Mexico	9.8%	25	9.0%	39	5.7	22
New York	9.0%	9	8.1%	23	4.3	7
North Carolina	10.4%	37	9.2%	40	6.7	38
North Dakota	9.6%	23	6.6%	2	5.5	17
Ohio	10.3%	34	8.5%	29	6.9	41
Oklahoma	11.4%	45	8.3%	26	7.1	46
Oregon	7.8%	1	6.7%	5	4.2	3
Pennsylvania	9.5%	19	8.3%	26	5.9	26
Rhode Island	9.0%	9	7.6%	16	5.0	11
South Carolina	11.3%	43	9.6%	46	7.2	48
South Dakota	9.4%	15	6.6%	2	5.9	26
Tennessee	11.1%	42	9.3%	41	6.9	41
Texas	10.8%	41	8.5%	29	5.5	17
Utah	9.4%	15	7.2%	11	5.5	17
Vermont	8.5%	4	7.0%	9	6.4	35
Virginia	9.4%	15	8.2%	25	5.6	20
Washington	8.3%	2	6.6%	2	4.7	8
West Virginia	11.8%	48	9.4%	42	7.1	46
Wisconsin	9.9%	27	7.7%	21	6.1	30
Wyoming	9.8%	25	9.4%	42	5.3	15
National	10.0%		8.3%		5.7	

Sources:

Preterm and Low Birthweight Births: CDC WONDER – Natality Expanded 2018.

Infant Mortality: National average: National Vital Statistics Reports, Infant mortality in the United States, 2018: Data from the period linked birth/infant death file. State-level infant mortality data: CDC National Center for Health Statistics (NCHS), States of the States: Infant Mortality Rates by State. Note: For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

GOAL: PARENTAL HEALTH AND EMOTIONAL WELLBEING

Prenatal-to-3 Outcomes and Rankings to Identify Gaps in Parental Health and Emotional Wellbeing by State

State	% Poor Maternal Mental Health	Rank	% Low Parenting Support	Rank	State	% Poor Maternal Mental Health	Rank	% Low Parenting Support	Rank
Alabama	6.0%	38	20.5%	45	Montana	8.9%	48	6.5%	2
Alaska	3.3%	11	9.2%	7	Nebraska	3.5%	14	19.7%	41
Arizona	3.4%	13	19.2%	40	Nevada	6.0%	38	16.2%	33
Arkansas	3.6%	17	11.8%	16	New Hampshire	4.0%	24	6.5%	2
California	4.2%	25	22.1%	48	New Jersey	1.2%	1	17.6%	37
Colorado	1.3%	2	16.0%	31	New Mexico	6.8%	41	25.8%	50
Connecticut	5.2%	31	14.3%	24	New York	2.1%	4	26.0%	51
Delaware	3.1%	9	18.9%	39	North Carolina	5.4%	35	15.2%	29
District of Columbia	3.6%	17	14.4%	25	North Dakota	3.6%	17	10.8%	13
Florida	3.6%	17	15.7%	30	Ohio	8.3%	47	11.8%	16
Georgia	3.5%	14	20.5%	45	Oklahoma	10.0%	50	11.7%	15
Hawaii	3.5%	14	16.1%	32	Oregon	5.3%	32	20.0%	42
Idaho	8.1%	45	9.8%	9	Pennsylvania	2.0%	3	14.4%	25
Illinois	2.5%	7	13.5%	23	Rhode Island	3.8%	22	16.5%	34
Indiana	6.2%	40	14.7%	27	South Carolina	3.9%	23	20.3%	43
lowa	8.1%	45	9.8%	9	South Dakota	2.2%	5	4.5%	1
Kansas	3.2%	10	11.9%	19	Tennessee	4.3%	26	16.8%	35
Kentucky	9.2%	49	9.8%	9	Texas	4.9%	29	22.0%	47
Louisiana	5.6%	37	12.1%	20	Utah	6.8%	41	11.8%	16
Maine	4.8%	28	10.1%	12	Vermont	10.2%	51	8.7%	5
Maryland	5.3%	32	25.5%	49	Virginia	3.0%	8	17.7%	38
Massachusetts	3.6%	17	20.4%	44	Washington	3.3%	11	17.3%	36
Michigan	7.7%	44	11.5%	14	West Virginia	5.1%	30	12.4%	21
Minnesota	5.5%	36	8.8%	6	Wisconsin	4.5%	27	8.6%	4
Mississippi	2.3%	6	14.8%	28	Wyoming	5.3%	32	13.0%	22
Missouri	7.2%	43	9.2%	7	National	4.5%		17.3%	

Source: National Survey of Children's Health, 2016-2018 combined estimates.

Note: For additional information, please refer to the Methods and Sources section of pn3policy.org.

GOAL: NURTURING AND RESPONSIVE CHILD-PARENT RELATIONSHIPS

Prenatal-to-3 Outcomes and Rankings to Identify Gaps in Nurturing and Responsive Child-Parent Relationships by State

State	% Not Read to Daily	Rank	% Not Nurtured Daily	Rank	% Parents Not Coping Very Well	Rank
Alabama	69.6%	46	47.8%	45	27.3%	17
Alaska	51.3%	6	27.7%	1	25.7%	12
Arizona	60.5%	27	46.6%	43	32.0%	40
Arkansas	70.3%	47	43.7%	34	31.9%	38
California	69.0%	45	43.6%	33	32.1%	41
Colorado	55.4%	12	44.1%	35	31.0%	31
Connecticut	46.7%	2	28.3%	3	33.1%	43
Delaware	54.9%	11	33.4%	4	27.3%	17
District of Columbia	49.6%	3	34.1%	6	33.0%	42
Florida	63.3%	34	36.8%	12	20.8%	3
Georgia	72.9%	51	49.7%	49	22.9%	7
Hawaii	66.2%	40	44.6%	37	37.5%	50
Idaho	67.2%	41	43.1%	30	35.5%	46
Illinois	62.0%	32	48.7%	47	31.8%	36
Indiana	60.2%	25	44.6%	37	31.7%	35
Iowa	53.6%	9	42.5%	27	24.6%	9
Kansas	58.9%	24	42.2%	26	30.4%	28
Kentucky	61.7%	30	36.0%	9	28.1%	20
Louisiana	68.2%	43	46.3%	42	25.4%	10
Maine	49.6%	3	37.3%	15	29.9%	26
Maryland	62.1%	33	44.7%	39	30.7%	29
Massachusetts	58.4%	21	40.3%	22	31.6%	34
Michigan	58.1%	20	40.4%	23	29.9%	26
Minnesota	53.5%	8	36.6%	11	26.6%	15
Mississippi	71.1%	48	51.8%	50	23.3%	8
Missouri	57.4%	16	36.8%	12	29.0%	22

(continued)

TABLES FROM GOAL, POLICY, AND STRATEGY PROFILES

(continued)

					% Daronte Not	
State	% Not Read to Daily	Rank	% Not Nurtured Daily	Rank	Coping Very Well	Rank
Montana	52.3%	7	39.7%	21	36.1%	48
Nebraska	65.3%	39	44.1%	35	22.4%	6
Nevada	68.9%	44	37.9%	16	26.8%	16
New Hampshire	58.0%	19	35.8%	8	35.8%	47
New Jersey	55.7%	13	33.6%	5	31.9%	38
New Mexico	60.4%	26	43.4%	31	30.8%	30
New York	61.7%	30	42.9%	29	33.3%	44
North Carolina	55.8%	14	37.2%	14	29.4%	24
North Dakota	68.0%	42	48.9%	48	25.9%	13
Ohio	58.4%	21	36.2%	10	33.4%	45
Oklahoma	61.3%	29	46.2%	41	27.4%	19
Oregon	58.4%	21	35.1%	7	36.3%	49
Pennsylvania	53.9%	10	38.6%	19	29.1%	23
Rhode Island	51.1%	5	38.9%	20	18.7%	2
South Carolina	63.9%	35	45.7%	40	31.2%	32
South Dakota	65.0%	37	47.3%	44	22.2%	5
Tennessee	61.0%	28	40.5%	24	26.1%	14
Texas	71.1%	48	52.4%	51	25.4%	10
Utah	71.4%	50	42.7%	28	44.0%	51
Vermont	42.2%	1	28.1%	2	29.7%	25
Virginia	63.9%	35	38.5%	17	31.8%	36
Washington	57.9%	18	40.9%	25	31.5%	33
West Virginia	65.2%	38	38.5%	17	17.8%	1
Wisconsin	56.6%	15	43.4%	31	21.6%	4
Wyoming	57.5%	17	47.8%	45	28.2%	21
National	62.8%		42.7%		29.3%	

Source: National Survey of Children's Health, 2016-2018 combined estimates.

Note: For additional information, please refer to the Methods and Sources section of pn3policy.org.

GOAL: NURTURING AND RESPONSIVE CHILD CARE IN SAFE SETTINGS State Variation in Early Head Start: Income-Eligible Children With Access to EHS

	Estimated % Children <3			Estimated % Children <3	
State	With Access to EHS	Rank	State	With Access to EHS	Rank
Alabama	5.3%	46	Montana	21.4%	4
Alaska	25.7%	2	Nebraska	15.7%	8
Arizona	6.1%	41	Nevada	4.8%	48
Arkansas	8.0%	31	New Hampshire	8.1%	29
California	9.7%	22	New Jersey	6.7%	37
Colorado	8.4%	27	New Mexico	8.9%	26
Connecticut	8.1%	29	New York	7.6%	34
Delaware	9.2%	25	North Carolina	6.4%	38
District of Columbia	26.0%	1	North Dakota	14.8%	9
Florida	6.1%	41	Ohio	6.0%	43
Georgia	5.4%	45	Oklahoma	10.1%	19
Hawaii	8.0%	31	Oregon	10.2%	16
Idaho	7.5%	36	Pennsylvania	9.6%	23
Illinois	11.5%	12	Rhode Island	10.5%	15
Indiana	4.5%	49	South Carolina	5.0%	47
lowa	9.3%	24	South Dakota	17.5%	5
Kansas	11.9%	11	Tennessee	3.5%	51
Kentucky	5.6%	44	Texas	4.4%	50
Louisiana	6.2%	40	Utah	8.2%	28
Maine	16.9%	6	Vermont	24.8%	3
Maryland	12.8%	10	Virginia	6.3%	39
Massachusetts	7.6%	34	Washington	9.9%	21
Michigan	10.2%	16	West Virginia	8.0%	31
Minnesota	11.3%	13	Wisconsin	11.3%	13
Mississippi	10.1%	19	Wyoming	15.9%	7
Missouri	10.2%	16	National	7.6%	

Sources: 2019 Early Head Start (EHS) Program Information Report (PIR) and 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS).

Note: For additional information, please refer to the Methods and Sources section of pn3policy.org.

State Variation in Quality Rating and Improvement Systems (QRIS) Policies and Components

State	State QRIS Detail	% of Providers Participating in QRIS	QRIS Includes Salary Scale (Centers)	QRIS Includes Coaching	QRIS Includes Ratio Standards
Alabama	Statewide QRIS	NR	NR	NR	NR
Alaska	Pilot	34.4%	Yes	Yes	No
Arizona	Statewide QRIS	26.7%	No	Yes	Yes
Arkansas	Statewide QRIS	61.1%	Yes	Yes	No
California	Non-statewide QRIS	11.7%	No	Yes	Yes
Colorado	Statewide QRIS	100.0%	No	Yes	Yes
Connecticut	Pilot	NR	NR	NR	NR
Delaware	Statewide QRIS	42.1%	Yes	Yes	Yes
District of Columbia	Statewide QRIS	48.4%	No	Yes	No
Florida	Non-statewide QRIS	NR	No	Yes	No
Georgia	Statewide QRIS	41.7%	No	Yes	Yes
Hawaii	None	No QRIS	No QRIS	No QRIS	No QRIS
Idaho	Statewide QRIS	12.9%	No	Yes	Yes
Illinois	Statewide QRIS	100.0%	No	Yes	Yes
Indiana	Statewide QRIS	74.9%	No	Yes	Yes
lowa	Statewide QRIS	32.3%	No	Yes	Yes
Kansas	Pilot	NR	NR	NR	NR
Kentucky	Statewide QRIS	58.5%	No	Yes	Yes
Louisiana	Statewide QRIS	NR	No	Yes	No
Maine	Statewide QRIS	56.6%	No	Yes	Yes
Maryland	Statewide QRIS	49.6%	Yes	Yes	Yes
Massachusetts	Statewide QRIS	51.6%	No	Yes	Yes
Michigan	Statewide QRIS	51.8%	Yes	Yes	Yes
Minnesota	Statewide QRIS	19.4%	No	Yes	No
Mississippi	None	No QRIS	No QRIS	No QRIS	No QRIS
Missouri	None	No QRIS	No QRIS	No QRIS	No QRIS

(continued)

TABLES FROM GOAL, POLICY, AND STRATEGY PROFILES

(continued)

State	State QRIS Detail	% of Providers Participating in QRIS	QRIS Includes Salary Scale (Centers)	QRIS Includes Coaching	QRIS Includes Ratio Standards
Montana	Statewide QRIS	26.8%	No	Yes	Yes
Nebraska	Statewide QRIS	NR	No	Yes	Yes
Nevada	Statewide QRIS	NR	Yes	Yes	Yes
New Hampshire	Statewide QRIS	100.0%	Yes	Yes	Yes
New Jersey	Statewide QRIS	2.4%	Yes	Yes	Yes
New Mexico	Statewide QRIS	100.0%	No	Yes	Yes
New York	Statewide QRIS	1.5%	Yes	Yes	No
North Carolina	Statewide QRIS	100.0%	Yes	Yes	Yes
North Dakota	Statewide QRIS	12.2%	No	Yes	Yes
Ohio	Statewide QRIS	66.9%	Yes	Yes	Yes
Oklahoma	Statewide QRIS	100.0%	No	Yes	No
Oregon	Statewide QRIS	100.0%	No	Yes	Yes
Pennsylvania	Statewide QRIS	100.0%	Yes	Yes	No
Rhode Island	Statewide QRIS	81.7%	No	Yes	Yes
South Carolina	Statewide QRIS	42.0%	No	Yes	Yes
South Dakota	Planning	NR	NR	NR	NR
Tennessee	Statewide QRIS	100.0%	Yes	Yes	Yes
Texas	Statewide QRIS	11.1%	No	Yes	Yes
Utah	Statewide QRIS	34.3%	No	No	Yes
Vermont	Statewide QRIS	100.0%	Yes	Yes	No
Virginia	Statewide QRIS	23.8%	No	Yes	No
Washington	Statewide QRIS	42.8%	No	Yes	No
West Virginia	Planning	NR	NR	NR	NR
Wisconsin	Statewide QRIS	77.8%	Yes	Yes	No
Wyoming	None	No QRIS	No QRIS	No QRIS	No QRIS
Count Yes			15	41	29

Source: The Build Initiative & Child Trends' Quality Compendium data system, as of December 31, 2019.

Note: NR indicates not reported. For additional information, please refer to the Methods and Sources section of pn3policy.org.

GOAL: OPTIMAL CHILD DEVELOPMENT

Prenatal-to-3 Outcomes and Rankings to Identify Gaps in Optimal Child Health and Development by State

State	% Never Breastfed	Rank	% Not Fully Immunized by Age 3	Rank	Maltreatment Rate per 1,000 Children < 3	Rank
Alabama	25.4%	46	20.7%	7	20.8	33
Alaska	8.0%	2	31.8%	43	23.0	36
Arizona	13.7%	22	30.4%	39	23.6	38
Arkansas	28.5%	49	29.0%	31	25.1	40
California	14.0%	25	27.8%	29	12.8	18
Colorado	10.4%	9	24.5%	17	16.9	26
Connecticut	13.1%	17	16.3%	1	18.5	30
Delaware	19.6%	40	26.3%	25	8.4	11
District of Columbia	19.1%	38	27.5%	26	13.6	21
Florida	21.4%	44	29.9%	37	17.2	27
Georgia	17.5%	32	23.3%	13	9.6	14
Hawaii	10.6%	10	29.0%	31	7.3	10
Idaho	9.8%	7	29.5%	35	10.5	16
Illinois	18.8%	35	24.0%	15	19.9	32
Indiana	19.0%	37	36.2%	50	33.9	48
Iowa	15.6%	28	25.6%	22	29.7	42
Kansas	13.2%	18	25.3%	20	4.9	5
Kentucky	27.9%	47	19.4%	4	41.4	51
Louisiana	31.5%	50	27.9%	30	19.4	31
Maine	13.3%	20	24.4%	16	24.2	39
Maryland	16.6%	30	26.0%	24	6.6	9
Massachusetts	13.7%	22	18.2%	2	29.8	43
Michigan	17.8%	33	29.5%	35	36.7	49
Minnesota	8.7%	3	33.0%	45	10.6	17
Mississippi	35.3%	51	29.4%	34	20.9	34
Missouri	19.4%	39	33.1%	46	5.1	6
Montana	9.9%	8	38.4%	51	30.2	44
Nebraska	14.3%	26	22.2%	11	8.7	12

(continued)

TABLES FROM GOAL, POLICY, AND STRATEGY PROFILES

(continued)

State	% Never Breastfed	Rank	% Not Fully Immunized by Age 3	Rank	Maltreatment Rate per 1,000 Children < 3	Rank
Nevada	18.5%	34	36.0%	49	14.8	23
New Hampshire	11.2%	11	19.4%	4	9.4	13
New Jersey	12.4%	14	29.9%	37	4.8	4
New Mexico	12.9%	16	23.3%	13	28.6	41
New York	13.7%	22	31.2%	41	21.9	35
North Carolina	16.8%	31	22.0%	10	3.9	3
North Dakota	13.4%	21	18.2%	2	18.2	28
Ohio	21.0%	41	25.3%	20	16.2	25
Oklahoma	21.2%	43	31.3%	42	31.7	45
Oregon	7.1%	1	34.5%	47	23.2	37
Pennsylvania	16.4%	29	20.4%	6	1.9	1
Rhode Island	21.1%	42	24.9%	19	33.7	47
South Carolina	22.3%	45	24.8%	18	31.8	46
South Dakota	13.2%	18	30.9%	40	12.9	19
Tennessee	18.8%	35	29.2%	33	13.1	20
Texas	15.2%	27	27.7%	28	18.4	29
Utah	9.5%	6	25.8%	23	14.8	23
Vermont	11.5%	12	21.5%	9	9.7	15
Virginia	12.1%	13	22.2%	11	5.4	7
Washington	9.0%	4	35.4%	48	3.8	2
West Virginia	27.9%	47	27.6%	27	40.3	50
Wisconsin	12.6%	15	21.3%	8	6.4	8
Wyoming	9.2%	5	31.8%	43	13.6	21
National	16.4%		27.2%		16.5	

Sources:

Breastfeeding and Immunization: 2018 National Immunization Survey-Child (NIS-Child).

Child maltreatment rates: 2018 National Child Abuse and Neglect Data System (NCANDS) Child File, FFY 2018v2 and Annual Estimates of the Resident Population by Sex, Age, Race, and Hispanic Origin for the United States, Vintage 2018.

Note: For additional information, please refer to the Methods and Sources section of pn3policy.org.
POLICY: EXPANDED INCOME ELIGIBILITY FOR HEALTH INSURANCE State Variation in Medicaid Expansion: Policy Adoption, Income Eligibility, and Percent Lacking Health Insurance

State has adopted and fully implemented the Medicaid expansion under the Affordable Care Act (ACA) that includes coverage for most adults with incomes up to 138% of the federal poverty level.

	Policy Adoption Status		Income Eligibility		
State	Yes/No	Childless Adults	Parents (in a family of three)	Pregnant Women	% Low-Income Women Uninsured
Alabama	No	0%	18%	146%	31.8%
Alaska	Yes	138%	138%	205%	26.2%
Arizona	Yes	138%	138%	161%	24.0%
Arkansas	Yes	138%	138%	214%	20.3%
California	Yes	138%	138%	213%	15.9%
Colorado	Yes	138%	138%	200%	16.5%
Connecticut	Yes	138%	160%	263%	14.4%
Delaware	Yes	138%	138%	217%	11.1%
District of Columbia	Yes	215%	221%	324%	6.4%
Florida	No	0%	31%	196%	32.1%
Georgia	No	0%	35%	225%	36.6%
Hawaii	Yes	138%	138%	196%	8.4%
Idaho	Yes	138%	138%	138%	28.5%
Illinois	Yes	138%	138%	213%	18.0%
Indiana	Yes	138%	138%	218%	21.5%
lowa	Yes	138%	138%	380%	10.1%
Kansas	No	0%	38%	171%	28.0%
Kentucky	Yes	138%	138%	200%	11.1%
Louisiana	Yes	138%	138%	138%	13.7%
Maine	Yes	138%	138%	214%	18.2%
Maryland	Yes	138%	138%	264%	16.5%
Massachusetts	Yes	138%	138%	205%	5.5%
Michigan	Yes	138%	138%	200%	11.0%
Minnesota	Yes	138%	138%	283%	9.9%
Mississippi	No	0%	26%	199%	34.1%

(continued)

	Policy Adoption Status		Income Eligibility		
State	Yes/No	Childless Adults	Parents (in a family of three)	Pregnant Women	% Low-Income Women Uninsured
Missouri	No**	0%	21%	201%	27.4%
Montana	Yes	138%	138%	162%	17.7%
Nebraska	Yes*	138%	138%	199%	29.5%
Nevada	Yes	138%	138%	165%	25.4%
New Hampshire	Yes	138%	138%	201%	10.6%
New Jersey	Yes	138%	138%	199%	25.9%
New Mexico	Yes	138%	138%	255%	19.5%
New York	Yes	138%	138%	223%	11.2%
North Carolina	No	0%	41%	201%	31.1%
North Dakota	Yes	138%	138%	162%	17.2%
Ohio	Yes	138%	138%	205%	13.2%
Oklahoma	No**	0%	41%	138%	36.2%
Oregon	Yes	138%	138%	190%	17.0%
Pennsylvania	Yes	138%	138%	220%	11.9%
Rhode Island	Yes	138%	138%	195%	10.3%
South Carolina	No	0%	67%	199%	24.0%
South Dakota	No	0%	48%	138%	28.2%
Tennessee	No	0%	94%	200%	23.0%
Texas	No	0%	17%	203%	47.7%
Utah	Yes	138%	138%	144%	22.6%
Vermont	Yes	138%	138%	213%	5.4%
Virginia	Yes	138%	138%	148%	25.2%
Washington	Yes	138%	138%	198%	14.8%
West Virginia	Yes	138%	138%	190%	11.6%
Wisconsin	No	100%	100%	306%	14.1%
Wyoming	No	0%	53%	159%	25.8%

* As of August 5, 2020, Nebraska plans to implement Medicaid expansion on October 1, 2020 without the program provisions from the 115 waiver. ** Indicates that the state has enacted, but not yet implemented Medicaid expansion.

Sources: Policy adoption status: Medicaid state plan amendments (SPAs) and Section 1115 waivers, as of October 1, 2020.

Medicaid eligibility limits: Kaiser Family Foundation (KFF), as of January 1, 2020 and Ballotpedia.org, as of August 1, 2020.

Low-income women uninsured: 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS).

Note: Italicized estimates should be interpreted with caution. For additional information, please refer to the Methods and Sources section of pn3policy.org.

POLICY: REDUCED ADMINISTRATIVE BURDEN FOR SNAP State Variation in Reduced Administrative Burden for SNAP: Policy Adoption, Median Recertification Interval Length, and Implementation

State's median SNAP recertification interval is 12 months or longer among households with SNAP-eligible children under age 18.

	Policy Adoption Status	Length of Recertification Interval (Months) Among Households With SNAP-Eligible Children <18		
State	Yes/No	Calculated Median Recertification Interval Length	Length of Recertification Interval Specified in State Manual	% Eligible Families With Children <18 <u>NOT</u> Receiving SNAP
Alabama	Yes	12	12	3.0%
Alaska	No	7	6	7.4%
Arizona	No	6	12	11.6%
Arkansas	Yes	13	4 and 12	6.6%
California	Yes	12	No more than 12	26.7%
Colorado	No	6	6 and 12	17.1%
Connecticut	Yes	13	12	11.7%
Delaware	Yes	12	12	14.3%
District of Columbia	Yes	12	6 and 12	7.5%
Florida	No	6	6	8.7%
Georgia	No	6	6	5.9%
Hawaii	Yes	12	No less than 3, no more than 12	14.3%
Idaho	No	6	6	9.4%
Illinois	Yes	12	12	8.2%
Indiana	Yes	12	12	4.7%
Iowa	No	6	4 and 6	6.5%
Kansas	Yes	13	12	10.9%
Kentucky	Yes	12	4 and 6	5.6%
Louisiana	Yes	13	12	2.9%
Maine	Yes	12	12	7.3%
Maryland	No	7	6 and 12	11.2%
Massachusetts	Yes	13	12	13.0%
Michigan	Yes	12	3 and 12	3.9%
Minnesota	Yes	12	12	13.1%
Mississippi	No	10	1, 2, and 6	4.7%

(continued)

	Policy Adoption Status	Length of Recertification Interval (Months) Among Households With SNAP-Eligible Children <18		
State	Yes/No	Calculated Median Recertification Interval Length	Length of Recertification Interval Specified in State Manual	% Eligible Families With Children <18 <u>NOT</u> Receiving SNAP
Missouri	Yes	13	No guidance for households without elderly individuals or individuals with disabilities	3.2%
Montana	Yes	12	12	7.6%
Nebraska	No	6	5 and 6	5.6%
Nevada	No	6	6	20.5%
New Hampshire	No	6	1, 4, and 12	11.5%
New Jersey	Yes	12	1, 2, 3, and 12	21.2%
New Mexico	Yes	12	12	6.8%
New York	No	11	6	8.1%
North Carolina	No	6	6 and 12	9.5%
North Dakota	No	6	6 and 12	9.1%
Ohio	Yes	12	4, 5, 6, and 12	4.7%
Oklahoma	Yes	13	12	5.2%
Oregon	Yes	12	12	7.1%
Pennsylvania	Yes	13	6 and 12	5.2%
Rhode Island	Yes	12	12	6.0%
South Carolina	No	6	6 and 12	6.6%
South Dakota	Yes	12	12	5.0%
Tennessee	Yes	12	12	2.0%
Texas	No	6	6	19.8%
Utah	No	6	6	8.7%
Vermont	Yes	12	12	9.8%
Virginia	Yes	12	1, 4, and 5	5.3%
Washington	Yes	12	12	8.7%
West Virginia	Yes	13	12	3.9%
Wisconsin	Yes	12	6 and 12	6.7%
Wyoming	No	5	4, 5 and 6	11.7%

Sources: Policy adoption status: United States Department of Agriculture (USDA) Fiscal Year 2018 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel, as of 2018; and State Supplemental Nutrition Assistance manuals, state statutes, and filed state legislation since 2017, as of June 30, 2020. Calculated median: United States Department of Agriculture (USDA) Fiscal Year 2018 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel, as of 2018. Length of recertification interval: State Supplemental Nutrition Assistance manuals, state statutes, and filed state legislation since 2017, as of June 30, 2020. Eligible families not receiving SNAP: 2016-2018 Urban Institute's TRIM3 project.

Notes: For additional information, please refer to the Methods and Sources section of pn3policy.org.

POLICY: STATE MINIMUM WAGE

State Variation in Minimum Wage: Policy Adoption, Current Wage, and Implementation

State has adopted and fully implemented a minimum wage of \$10 or greater.

	Policy Adoption Status	Current Minimum Wage		
State	Yes/No	Current State Minimum Wage	Cost-of-Living Adjusted Minimum Wage	% of Parents With Children <3 Who Earn Less Than \$10 per Hour
Alabama	No	\$7.25**	\$8.39	15.0%
Alaska	Yes	\$10.19	\$9.72	15.4%
Arizona	Yes	\$12.00	\$12.44	13.3%
Arkansas	Yes	\$10.00	\$11.72	17.2%
California	Yes	\$13.00	\$11.27	10.6%
Colorado	Yes	\$12.00	\$11.78	14.2%
Connecticut	Yes	\$12.00	\$11.31	9.7%
Delaware	No**	\$9.25	\$9.36	16.5%
District of Columbia	Yes	\$15.00	\$12.92	6.4%
Florida	No**	\$8.56	\$8.51	12.3%
Georgia	No	\$7.25**	\$7.80	18.2%
Hawaii	Yes	\$10.10	\$8.55	14.4%
Idaho	No	\$7.25	\$7.84	14.6%
Illinois	Yes	\$10.00	\$10.19	13.3%
Indiana	No	\$7.25	\$8.12	11.9%
lowa	No	\$7.25	\$8.13	14.9%
Kansas	No	\$7.25	\$8.06	13.9%
Kentucky	No	\$7.25	\$8.26	15.0%
Louisiana	No	\$7.25**	\$8.14	22.1%
Maine	Yes	\$12.00	\$12.00	9.1%
Maryland	Yes	\$11.00	\$10.15	8.3%
Massachusetts	Yes	\$12.75	\$11.62	7.5%
Michigan	No**	\$9.65	\$10.44	12.0%
Minnesota	Yes	\$10.00	\$10.26	8.1%
Mississippi	No	\$7.25**	\$8.43	19.6%

(continued)

	Policy Adoption Status	Current Minimum Wage		
State	Yes/No	Current State Minimum Wage	Cost-of-Living Adjusted Minimum Wage	% of Parents With Children <3 Who Earn Less Than \$10 per Hour
Missouri	No**	\$9.45	\$10.64	11.1%
Montana	No**	\$8.65	\$9.27	15.8%
Nebraska	No**	\$9.00	\$10.06	17.1%
Nevada	No**	\$9.00	\$9.23	12.9%
New Hampshire	No	\$7.25**	\$6.84	8.5%
New Jersey	Yes	\$11.00	\$9.55	9.8%
New Mexico	No**	\$9.00	\$9.88	20.3%
New York	Yes	\$11.80	\$10.14	11.3%
North Carolina	No	\$7.25**	\$7.90	14.3%
North Dakota	No	\$7.25	\$8.00	14.6%
Ohio	No**	\$8.70	\$9.84	12.9%
Oklahoma	No	\$7.25	\$8.20	14.6%
Oregon	Yes	\$12.00	\$11.87	13.1%
Pennsylvania	No	\$7.25	\$7.44	12.2%
Rhode Island	Yes	\$10.50	\$10.57	5.0%
South Carolina	No	\$7.25**	\$7.96	12.2%
South Dakota	No**	\$9.30	\$10.58	15.7%
Tennessee	No	\$7.25**	\$8.06	14.1%
Texas	No	\$7.25	\$7.49	14.0%
Utah	No	\$7.25	\$7.51	10.9%
Vermont	Yes	\$10.96	\$10.64	13.2%
Virginia	No	\$7.25	\$7.11	10.0%
Washington	Yes	\$13.50	\$12.52	6.5%
West Virginia	No**	\$8.75	\$9.97	18.2%
Wisconsin	No	\$7.25	\$7.89	13.9%
Wyoming	No	\$7.25**	\$7.82	16.6%

** Yes/No Status: Denotes a state minimum wage higher than the federal minimum but less than \$10 an hour

** Minimum Wage Level: Indicates no state minimum wage legislated or set below federal; the \$7.25 federal minimum wage applies to Fair Labor Standards Act covered workers.

Sources: Policy adoption status and Current minimum wage: state labor statutes and state labor department websites, as of October 1, 2020. Cost-of-living adjusted minimum wage: Bureau of Economic Analysis RPP, as of May 2020.

Parents who earn less than \$10 an hour: 2017-2019 Current Population Survey, Annual Social and Economic Supplement (CPS ASEC) Public Use Microdata Sample (PUMS).

Notes: Italicized estimates should be interpreted with caution. For additional information, please refer to the Methods and Sources section of pn3policy.org.

POLICY: STATE EARNED INCOME TAX CREDIT State Variation in State EITC: Policy Adoption, Generosity, and Implementation

State has a refundable EITC of at least 10% of the federal EITC for all eligible families with any children under age 3.

	Policy Adoption Status	Generosity		
State	Yes/No	State EITC Detail	State EITC Value as a % of the Federal EITC	% of EITC Eligible Tax Filers Who Do Not Claim Federal EITC
Alabama	No	No EITC	No EITC	12.7%
Alaska	No	No EITC, No Income Tax	No EITC, No Income Tax	15.7%
Arizona	No	No EITC	No EITC	8.9%
Arkansas	No	No EITC	No EITC	10.4%
California	Yes	Refundable EITC	85%	14.8%
Colorado	Yes	Refundable EITC	10%	12.9%
Connecticut	Yes	Refundable EITC	23%	14.2%
Delaware	No	Nonrefundable EITC	20%	11.2%
District of Columbia	Yes	Refundable EITC	40%	11.6%
Florida	No	No EITC, No Income Tax	No EITC, No Income Tax	10.5%
Georgia	No	No EITC	No EITC	7.5%
Hawaii	No	Nonrefundable EITC	20%	24.2%
Idaho	No	No EITC	No EITC	7.2%
Illinois	Yes	Refundable EITC	18%	12.1%
Indiana	No*	Refundable EITC	9%	9.1%
lowa	Yes	Refundable EITC	15%	7.5%
Kansas	Yes	Refundable EITC	17%	11.0%
Kentucky	No	No EITC	No EITC	9.8%
Louisiana	No*	Refundable EITC	5%	8.4%
Maine	Yes	Refundable EITC	12%	5.7%
Maryland	Yes	Refundable EITC	28%	13.2%
Massachusetts	Yes	Refundable EITC	30%	10.2%
Michigan	No*	Refundable EITC	6%	13.1%
Minnesota	Yes	Refundable EITC	34%	7.7%

(continued)

	Policy Adoption Status	Generosity		
State	Yes/No	State EITC Detail	State EITC Value as a % of the Federal EITC	% of EITC Eligible Tax Filers Who Do Not Claim Federal EITC
Mississippi	No	No EITC	No EITC	6.1%
Missouri	No	No EITC	No EITC	11.9%
Montana	No*	Refundable EITC	3%	10.7%
Nebraska	Yes	Refundable EITC	10%	10.0%
Nevada	No	No EITC, No Income Tax	No EITC, No Income Tax	11.2%
New Hampshire	No	No EITC, No Income Tax	No EITC, No Income Tax	12.9%
New Jersey	Yes	Refundable EITC	40%	14.1%
New Mexico	Yes	Refundable EITC	17%	10.0%
New York	Yes	Refundable EITC	30%	15.0%
North Carolina	No	No EITC	No EITC	11.3%
North Dakota	No	No EITC	No EITC	7.1%
Ohio	No	Nonrefundable EITC	30%	11.3%
Oklahoma	No	Nonrefundable EITC	5%	11.5%
Oregon	Yes	Refundable EITC	12%	16.2%
Pennsylvania	No	No EITC	No EITC	14.9%
Rhode Island	Yes	Refundable EITC	15%	15.0%
South Carolina	No	Nonrefundable EITC	62%	10.6%
South Dakota	No	No EITC, No Income Tax	No EITC, No Income Tax	13.3%
Tennessee	No	No EITC, No Income Tax	No EITC, No Income Tax	11.3%
Texas	No	No EITC, No Income Tax	No EITC, No Income Tax	10.5%
Utah	No	No EITC	No EITC	8.0%
Vermont	Yes	Refundable EITC	36%	11.1%
Virginia	No	Nonrefundable EITC	20%	9.1%
Washington	No	No EITC, No Income Tax	No EITC, No Income Tax	12.1%
West Virginia	No	No EITC	No EITC	13.3%
Wisconsin	No*	Refundable EITC	4%	6.8%
Wyoming	No	No EITC, No Income Tax	No EITC, No Income Tax	11.1%

* Denotes states with a refundable EITC that does not meet the threshold of at least 10% of the federal EITC for all eligible families with any children under 3. Sources: **Policy adoption status, State EITC detail,** and **Value as percentage of Federal:** generosity and variation from state income tax statutes, as of October 1, 2020. **Percentage not claiming the EITC:** 2017-2019 Current Population Survey, Annual Social and Economic Supplement (CPS ASEC) Public Use Microdata Sample (PUMS).

Notes: Italicized estimates should be interpreted with caution. For additional information, please refer to the Methods and Sources section of pn3policy.org.

STRATEGY: CHILD CARE SUBSIDIES

State Variation in Child Care Subsidies: Income Eligibility and Base Reimbursement Rates

State	Income Eligibility as a % of the FPL	Base Reimbursement Rate for Infants in Center-Based Care	Base Reimbursement Rate for Infants in Center-Based Care IF set at 75th Percentile of the Market Rate Survey the State Used
Alabama	130%	\$650	\$836
Alaska	290%	\$980	\$1,006
Arizona	165%	\$853	\$1,050
Arkansas	205%	\$597	\$594
California	253%	\$1,594	\$1,594
Colorado	185%	\$1,166	\$1,641
Connecticut	222%	\$1,322	\$1,534
Delaware	185%	\$816	\$1,255
District of Columbia	239%	\$1,369	Not Reported
Florida	150%	\$719	\$693
Georgia	144%	\$650	\$1,025
Hawaii	221%	\$1,490	\$1,490
Idaho	130%	\$790	\$840
Illinois	185%	\$1,064	\$1,402
Indiana	127%	\$1,070	Not Reported
Iowa	145%	\$711	\$858
Kansas	185%	\$774	\$730
Kentucky	156%	\$586	\$743
Louisiana	162%	\$523	\$654
Maine	272%	\$1,313	\$1,313
Maryland	282%	\$958	\$1,191
Massachusetts	224%	\$1,550	\$1,874
Michigan	125%	\$809	\$1,130
Minnesota	185%	\$1,161	\$1,465
Mississippi	205%	\$480	\$480
Missouri	138%	\$789	\$1,361

(continued)

State	Income Eligibility as a % of the FPL	Base Reimbursement Rate for Infants in Center-Based Care	Base Reimbursement Rate for Infants in Center-Based Care IF set at 75th Percentile of the Market Rate Survey the State Used
Montana	150%	\$837	\$837
Nebraska	130%	\$941	\$1,021
Nevada	130%	\$879	\$1,004
New Hampshire	220%	\$1,083	\$1,181
New Jersey	200%	\$995	\$1,326
New Mexico	200%	\$721	\$774
New York	200%	\$1,759	\$1,759*
North Carolina	200%	\$536	\$1,170
North Dakota	218%	\$840	\$840
Ohio	130%	\$910	\$1,235
Oklahoma	165%	\$418	\$669
Oregon	185%	\$1,415	\$1,455
Pennsylvania	200%	\$893	Not Reported
Rhode Island	180%	\$860	\$1,075
South Carolina	152%	\$802	\$802
South Dakota	209%	\$762	\$762
Tennessee	173%	\$771	\$875
Texas	185%-251%	\$702	\$787
Utah	175%	\$900	\$900
Vermont	300%	\$867	\$1,127
Virginia	150%-250%	\$1,777	\$1,777*
Washington	200%	\$1,501	\$2,008
West Virginia	150%	\$669	\$669
Wisconsin	185%	\$1,201	\$1,257*
Wyoming	175%	\$628	\$732

Note: All rates are monthly and rounded to the nearest dollar. States vary in how they define the ages of infants and toddlers. Current rates do not include temporary enhanced rates set due to COVID-19.

* New York does not report/calculate rates at the 75th percentile; rates listed are at the 69th percentile. Virginia does not report/calculate rates at the 75th percentile; rate listed is at the 70th percentile. Wisconsin does not report rates at the 75th percentile for Milwaukee County (Zone D); statewide 75th percentile rate included in table.

Sources: Income eligibility: National Women's Law Center, as of February 2019. Base reimbursement rates: state children and families department websites and state market rate surveys, as of July 1, 2020. For additional information, please refer to the Methods and Sources section of <u>pn3policy.org</u>.

State Variation in Child Care Subsidies: Copayments and Additional Fees

State	Monthly Copayment as a Dollar Amount for a Family of 3 at 150% of the FPL	Monthly Copayment as a % of Income for a Family of 3 at 150% of the FPL	State Allows Provider to Charge Parents the Difference Between Reimbursement Rate and Provider Rate
Alabama	\$132	5%	Yes
Alaska	\$156	6%	Yes
Arizona	\$65	2%	Yes
Arkansas	\$31	1%	Yes, for 2- and 3-star
California	\$87	3%	Yes
Colorado	\$293	11%	No
Connecticut	\$160	6%	Yes
Delaware	\$240	9%	Yes
District of Columbia	\$59	2%	No
Florida	\$195	7%	Yes
Georgia	\$186	7%	Yes
Hawaii	\$592	22%	Yes
Idaho	\$150	6%	Yes
Illinois	\$228	9%	Yes
Indiana	\$241	9%	Yes
Iowa	\$174	7%	No
Kansas	\$207	8%	Yes
Kentucky	\$281	11%	Yes
Louisiana	\$65	2%	Yes
Maine	\$240	9%	No
Maryland	\$92	3%	Yes
Massachusetts	\$325	12%	No
Michigan	\$65	2%	Yes
Minnesota	\$87	3%	Yes
Mississippi	\$160	6%	Yes
Missouri	\$210	8%	Yes
Montana	\$373	14%	Yes
Nebraska	\$187	7%	No

(continued)

State	Monthly Copayment as a Dollar Amount for a Family of 3 at 150% of the FPL	Monthly Copayment as a % of Income for a Family of 3 at 150% of the FPL	State Allows Provider to Charge Parents the Difference Between Reimbursement Rate and Provider Rate
Nevada	\$152	6%	Yes
New Hampshire	\$333	12%	Yes
New Jersey	\$106	4%	Yes
New Mexico	\$186	7%	No
New York	\$327	12%	Yes
North Carolina	\$267	10%	Yes
North Dakota	\$227	9%	Yes
Ohio	\$235	9%	No
Oklahoma	\$239	9%	No
Oregon	\$523	20%	Yes
Pennsylvania	\$230	9%	Yes
Rhode Island	\$213	8%	No
South Carolina	\$48	2%	Yes
South Dakota	\$0	0%	Yes
Tennessee	\$186	7%	Yes
Texas	\$270	10%	Yes
Utah	\$175	7%	Yes
Vermont	\$260	10%	Yes
Virginia	\$213	8%	Yes
Washington	\$207	8%	No
West Virginia	\$124	5%	No
Wisconsin	\$251	9%	Yes
Wyoming	\$38	1%	Yes

Source: National Women's Law Center, as of February 2019. For additional information, please refer to the Methods and Sources section of pn3policy.org.

STRATEGY: GROUP PRENATAL CARE

State Variation in Group Prenatal Care: Women Lacking Adequate Prenatal Care

State	% of Women <u>NOT</u> Receiving Adequate Prenatal Care	State	% of Women <u>NOT</u> Receiving Adequate Prenatal Care	
Alabama	19.1%	Montana	15.8%	
Alaska	18.4%	Nebraska	14.4%	
Arizona	20.1%	Nevada	17.6%	
Arkansas	20.7%	New Hampshire	9.6%	
California	9.6%	New Jersey	15.4%	
Colorado	15.5%	New Mexico	22.8%	
Connecticut	9.6%	New York	12.9%	
Delaware	18.3%	North Carolina	16.7%	
District of Columbia	20.1%	North Dakota	13.5%	
Florida	19.1%	Ohio	16.1%	
Georgia	18.2%	Oklahoma	16.6%	
Hawaii	21.6%	Oregon	11.5%	
Idaho	11.0%	Pennsylvania	16.3%	
Illinois	15.2%	Rhode Island	7.4%	
Indiana	17.0%	South Carolina	17.4%	
lowa	11.2%	South Dakota	16.4%	
Kansas	10.5%	Tennessee	15.8%	
Kentucky	14.0%	Texas	21.0%	
Louisiana	15.4%	Utah	10.7%	
Maine	10.0%	Vermont	5.3%	
Maryland	17.9%	Virginia	13.3%	
Massachusetts	11.1%	Washington	14.8%	
Michigan	12.8%	West Virginia	15.9%	
Minnesota	10.6%	Wisconsin	11.1%	
Mississippi	13.8%	Wyoming	16.8%	
Missouri	16.3%			

Source: CDC Vital Statistics - Natality Expanded 2018 (from CDC WONDER).

Note: For additional information, please refer to the Methods and Sources section of pn3policy.org.

STRATEGY: EVIDENCE-BASED HOME VISITING PROGRAMS State Variation in Evidence-Based Home Visiting: State Funding, Number of Models, and Children Served

State	State Supplements Federal Funding to Implement Home Visiting Programs	Number of Evidence-Based Program Models with Demonstrated Impact in Parenting Being Implemented in the State	Estimated % of Eligible Children <3 Served by Home Visiting Programs
Alabama	Yes	6	1.9%
Alaska	No	3	7.0%
Arizona	Yes	6	9.4%
Arkansas	Yes	5	2.6%
California	Yes	8	3.5%
Colorado	Yes	5	14.0%
Connecticut	Yes	3	11.0%
Delaware	Yes	4	9.3%
District of Columbia	Yes	4	5.7%
Florida	No	5	7.6%
Georgia	Not Reported	4	2.1%
Hawaii	Yes	5	6.1%
Idaho	Not Reported	4	6.8%
Illinois	Yes	7	8.6%
Indiana	Yes	4	12.4%
lowa	Yes	5	16.9%
Kansas	Yes	5	21.8%
Kentucky	Yes	4	11.3%
Louisiana	Yes	5	4.2%
Maine	Yes	2	23.7%
Maryland	Yes	8	6.3%
Massachusetts	Yes	3	6.2%
Michigan	Yes	5	7.0%
Minnesota	Yes	6	9.9%
Mississippi	No	4	1.4%
Missouri	Yes	6	17.4%

(continued)

State	State Supplements Federal Funding to Implement Home Visiting Programs	Number of Evidence-Based Program Models with Demonstrated Impact in Parenting Being Implemented in the State	Estimated % of Eligible Children <3 Served by Home Visiting Programs
Montana	Not Reported	5	11.9%
Nebraska	Yes	4	4.6%
Nevada	No	4	0.8%
New Hampshire	Not Reported	2	5.1%
New Jersey	Yes	6	10.0%
New Mexico	Yes	4	4.7%
New York	Not Reported	7	4.7%
North Carolina	Yes	8	7.3%
North Dakota	Not Reported	5	6.4%
Ohio	Yes	6	8.9%
Oklahoma	Yes	7	10.4%
Oregon	Yes	6	11.8%
Pennsylvania	Yes	7	10.4%
Rhode Island	Yes	4	23.7%
South Carolina	Not Reported	4	5.1%
South Dakota	No	4	4.8%
Tennessee	Yes	4	2.2%
Texas	Yes	6	2.0%
Utah	Yes	5	3.9%
Vermont	Yes	4	11.7%
Virginia	Yes	5	7.0%
Washington	Yes	4	8.8%
West Virginia	Yes	3	7.4%
Wisconsin	Yes	7	9.5%
Wyoming	No	4	12.0%

Source: **State supplements federal funding**: National Home Visiting Resource Center, Home Visiting Evidence of Effectiveness, National Conferences of State Legislatures (NCSL) FY19 state budget survey, and state statutes and adopted FY19 budgets, all as of June 11, 2020.

Number of evidence-based program models: HomVEE 2020.

Estimated percentage of eligible children: National Home Visiting Resource Center, as of 2018; and 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS).

Note: For additional information, please refer to the Methods and Sources section of pn3policy.org.

STRATEGY: EARLY HEAD START State Variation in Early Head Start: Children With Access to EHS

State	Estimated % of Income-Eligible Children With Access to EHS	State	Estimated % of Income-Eligible Children With Access to EHS	
Alabama	5.3%	Montana	21.4%	
Alaska	25.7%	Nebraska	15.7%	
Arizona	6.1%	Nevada	4.8%	
Arkansas	8.0%	New Hampshire	8.1%	
California	9.7%	New Jersey	6.7%	
Colorado	8.4%	New Mexico	8.9%	
Connecticut	8.1%	New York	7.6%	
Delaware	9.2%	North Carolina	6.4%	
District of Columbia	26.0%	North Dakota	14.8%	
Florida	6.1%	Ohio	6.0%	
Georgia	5.4%	Oklahoma	10.1%	
Hawaii	8.0%	Oregon	10.2%	
Idaho	7.5%	Pennsylvania	9.6%	
Illinois	11.5%	Rhode Island	10.5%	
Indiana	4.5%	South Carolina	5.0%	
lowa	9.3%	South Dakota	17.5%	
Kansas	11.9%	Tennessee	3.5%	
Kentucky	5.6%	Texas	4.4%	
Louisiana	6.2%	Utah	8.2%	
Maine	16.9%	Vermont	24.8%	
Maryland	12.8%	Virginia	6.3%	
Massachusetts	7.6%	Washington	9.9%	
Michigan	10.2%	West Virginia	8.0%	
Minnesota	11.3%	Wisconsin	11.3%	
Mississippi	10.1%	Wyoming	15.9%	
Missouri	10.2%			

Source: 2019 Early Head Start (EHS) Program Information Report (PIR) and 2018 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS).

Note: For additional information, please refer to the Methods and Sources section of pn3policy.org.

STRATEGY: EARLY INTERVENTION SERVICES

State Variation in Early Intervention Services: State Criteria for Eligibility and Children Receiving Services

State	Criteria Used to Determine Eligibility for El Services	Categorical Assessment of State's Eligibility Criteria	% of All Children <3 Receiving El Services
Alabama	25% delay in one area	Broad	2.1%
Alaska	50% delay in one area	Narrow	2.7%
Arizona	50% delay in one area	Narrow	2.3%
Arkansas	25% delay in one area	Broad	0.9%
California	33% delay in one area or are at high risk for developing a delay, for children up to 36 months old	Moderate	3.5%
Colorado	25% delay in one area	Broad	4.1%
Connecticut	2 standard deviations below the mean in one area; or 1.5 standard deviations below the mean in two areas	Narrow	4.9%
Delaware	25% delay or 1.75 standard deviations below the mean in one area	Broad	3.3%
District of Columbia	50% delay in one area or 25% delay in two areas	Broad	3.7%
Florida	2 standard deviations below the mean in one area; or 1.5 standard deviations below the mean in two areas	Narrow	2.5%
Georgia	Diagnosed developmental delay confirmed by a qualified team of professionals	Narrow	2.5%
Hawaii	1.4 standard deviations below the mean in one area; or 1 standard deviation below the mean in two areas	Broad	3.1%
Idaho	30% delay, 6-month delay or 2 standard deviations below the mean in one area; or 1.5 standard deviations below the mean in two areas	Narrow	3.0%
Illinois	30% or more delay one area	Moderate	3.8%
Indiana	25% delay or 2 standard deviations below the mean in one area; or 20% delay or 1.5 standard deviations below the mean in two areas	Moderate	4.6%
Iowa	25% or more delay in one area	Broad	2.6%

(continued)

State	Criteria Used to Determine Eligibility for El Services	Categorical Assessment of State's Eligibility Criteria	% of All Children <3 Receiving El Services
Kansas	25% delay in one area; or 20% delay in two areas	Broad	4.8%
Kentucky	2 standard deviations below the mean in one area or 1.5 standard deviations below the mean in two areas	Narrow	3.2%
Louisiana	1.5 standard deviations below the mean in two areas	Narrow	3.1%
Maine	2 standard deviations below the mean in one area; or 1.5 standard deviations below the mean in two areas	Narrow	2.5%
Maryland	25% delay or more in one area; or manifests behavior that is likely to result in a subsequent delay	Broad	4.0%
Massachusetts	1.5 standard deviations below the mean in one area	Moderate	10.1%
Michigan	20% delay or 1 standard deviation below the mean in one area	Broad	3.3%
Minnesota	1.5 standard deviations below the mean in one area	Moderate	2.9%
Mississippi	33% delay or 2 standard deviations below the mean in one area; or 25% delay or 1.5 standard deviations below the mean in two areas	Moderate	2.0%
Missouri	50% delay in one area	Narrow	3.2%
Montana	50% delay in one area or 25% delay in two areas	Narrow	2.3%
Nebraska	2 standard deviations below the mean in one area or 1.3 standard deviations below the mean in two areas	Moderate	2.7%
Nevada	50% delay in one area or 25% delay in two areas	Narrow	3.0%
New Hampshire	33% delay in one area or "atypical behavior" as documented by the family and qualified personnel	Moderate	5.7%
New Jersey	2 standard deviations below the mean in one area or 1.5 standard deviations below the mean in two areas	Narrow	4.6%
New Mexico	25% delay or 1.5 standard deviations in one area	Broad	8.7%
New York	33% delay, 12-month delay, or 2 standard deviations below the mean in one area; or 25% delay or 1.5 standard deviations below the mean in two areas	Moderate	4.6%
North Carolina	30% delay or 2 standard deviations below the mean in one area; or 25% delay or 1.5 standard deviations below the mean in two areas	Moderate	3.0%

(continued)

State	Criteria Used to Determine Eligibility for El Services	Categorical Assessment of State's Eligibility Criteria	% of All Children <3 Receiving El Services
North Dakota	50% delay in one area or 25% delay in two areas	Moderate	4.6%
Ohio	1.5 standard deviations below the mean in one area	Moderate	2.7%
Oklahoma	50% delay or 2 standard deviations below the mean in one area; or 25% delay or 1.5 standard deviations below the mean in two areas	Narrow	1.7%
Oregon	30% delay or 2 standard deviations below the mean in one area; or 15% delay or 1.5 standard deviations below the mean in two areas	Narrow	3.2%
Pennsylvania	25% delay or 1.5 standard deviations below the mean in one area	Broad	5.4%
Rhode Island	2 standard deviations below the mean in one area or 1.5 standard deviations below the mean in two areas	Moderate	6.5%
South Carolina	40% delay or 2 standard deviations below the mean in one area; or 25% delay or 1.5 standard deviations below the mean in two areas	Narrow	3.2%
South Dakota	1.5 standard deviations below the mean in one area	Moderate	3.3%
Tennessee	40% delay in one area or 25% delay in two areas	Moderate	3.2%
Texas	25% delay in one area; if the only delay is expressive language development there must be a 33% delay	Broad	2.3%
Utah	1.5 standard deviations below the mean or at or below the 7th percentile in one area	Moderate	3.1%
Vermont	Clearly observable and measurable delay in one area	Broad	6.1%
Virginia	25% delay in one area	Broad	3.5%
Washington	25% delay or 1.5 standard deviation below the mean in at least one area	Broad	3.4%
West Virginia	40% delay in one area; or 25% delay in two areas	Moderate	6.6%
Wisconsin	25% delay in one area	Broad	3.0%
Wyoming	25% delay or 1.5 standard deviations below the mean in one area	Moderate	5.9%

Sources: Criteria used to determine eligibility: legal statutes, health department regulations, and Early Intervention program websites, as of June 2020. Categorical assessment and Percentage of children receiving services: IDEA Infant and Toddler Coordinators Association, as of 2018. Note: For additional information, please refer to the Methods and Sources section of pn3policy.org.

Child and Family Research Partnership

The Child and Family Research Partnership (CFRP) is an independent, nonpartisan research group at the LBJ School of Public Affairs at The University of Texas at Austin and home of the national Prenatal-to-3 Policy Impact Center. CFRP specializes in collaborative partnerships and using academic research to help organizations understand what works and why, and how to ensure sustainable implementation of effective policies. CFRP engages in rigorous qualitative and quantitative research and evaluation work for federal and state agencies and non-governmental organizations aimed at strengthening families and enhancing public policy. CFRP conducts large-scale research design, survey development and administration, complex data management, in-depth data analysis, and synthesis of findings for stakeholders. Major research areas include early childhood investments, family supports, fatherhood, child welfare, and adolescent health. childandfamilyresearch.utexas.edu.

LBJ School of Public Affairs

The University of Texas at Austin LBJ School of Public Affairs, one of the nation's top 10 public affairs schools, offers master's degrees in domestic and global affairs, making a difference, not only within the walls of academia, but also in the public and social dialogue of the world. Its effectiveness in channeling the purpose and passion of students into professional careers is evident in the success of more than 4,500 graduates who are the living legacy of President Johnson's bold and fearless action. The school celebrates a half-century of impact in 2020. lbj.utexas.edu.

Recommended citation: Prenatal-to-3 Policy Impact Center. (2020). *Prenatal-to-3 State Policy Roadmap 2020: Building a Strong and Equitable Prenatal-to-3 System of Care.* Child and Family Research Partnership. Lyndon B. Johnson School of Public Affairs, University of Texas at Austin. http://pn3policy.org/pn-3-state-policy-roadmap.

© Prenatal-to-3 Policy Impact Center at The University of Texas at Austin LBJ School of Public Affairs. All rights reserved.



Find the complete 2020 Prenatal-to-3 State Policy Roadmap, state profiles, and data interactives at <u>pn3policy.org/roadmap</u>.

Prenatal-to-3 Policy Impact Center

The University of Texas at Austin LBJ School of Public Affairs

> 2315 Red River Street Austin, Texas 78712

pn3policy.org pn3policy@austin.utexas.edu 855-471-2377

Twitter: @pn3policy #pn3policy