2025 Prenatal-to-3 State Policy Roadmap

Methods and Sources

Emerging Strategies

CASH TRANSFERS

What are cash transfers and why are they important? How can states increase access to cash transfers?

All references for these sections are provided in the Notes and Sources section at the bottom of each webpage.

What impact do cash transfers have, and for whom?

The following studies meet standards of strong causal evidence to demonstrate the impacts of cash transfers for the health and wellbeing of young children and their families:

A. Bullinger, L. & Boy, A. (2023). Association of Expanded Child Tax Credit payments with child abuse and neglect emergency department visits. *JAMA Network Open*. https://doi.org/10.1001/jamanetworkopen.2022.55639
B. Ananat, E., Glasner, B., Christal, H., Parolin, Z. (2022). Effects of the Expanded Child Tax Credit on employment outcomes: Evidence from real-world data from April to December 2021. *Center on Poverty & Social Policy at Columbia University*. https://doi.org/10.3386/w29823
C. Shafer, P.R., Gutiérrez, K,M,, Ettinger de Cuba, S., Bovell-Ammon, A., & Raifman, J. (2022). Association of the implementation of child tax credit advance payments with food insufficiency in US Households. *JAMA Netw Open.* http://doi.org/10.1001/jamanetworkopen.2021.43296
D. Troller-Renfree, S., Costanzo, M., Duncan, G., Magnuson, K., Gennetian, L., Yoshikawa, H., Halpern-Meekin, S., Fox, N., Noble, K. (2021). The impact of a poverty reduction intervention on infant brain activity. Proceedings of the National Academy of Sciences of the United States of America (PNAS). https://doi.org/10.1073/pnas.2115649119
E. Parolin, Z., Ananat, E., Collyer, S., Curran, M., & Wimer, C. (2021). The initial effects of the Expanded Child Tax Credit on material hardship. *Center on Poverty & Social Policy, Columbia University, Barnard College, and Bocconi University*. https://www.povertycenter.columbia.edu/s/Child-Tax-Credit-Expansion-on-Material-Hardship-CPSP-2021.pdf
F. Bibler, A., Guettabi, M., & Reimer, M. (2022). Universal cash transfers and labor market outcomes. *Journal of Policy Analysis and Management, Vol. 42, No. 1,* 198-224. https://doi.org/10.1002/pam.22455
G. Jones, D., & Marinescu, I. (2022). The labor market impacts of universal and permanent cash transfers: Evidence from the Alaska Permanent Fund. *American Economic Journal: Economic Policy Vol. 14, No. 2.* https://doi.org/10.1257/pol.20190299
H. Miller, C., Riccio, J., Verma, N., Nuñez, S., Dechausay, N., & Yang, E. (2015). Testing a conditional cash transfer program in the U.S.: the effects of the family rewards program in New York City. *IZA Journal of Labor Policy*. https://doi.org/10.1186/s40173-015-0037-6
I. Bullinger, L., Packham, A., & Raissian, K. (2023). Effects of universal and unconditional cash transfers on child abuse and neglect. *NBER Working Paper Series*. https://www.nber.org/papers/w31733
J. Amorim, Mariana. (2021). Socioeconomic disparities in parental spending after universal cash transfers: The case of the Alaska Dividend. *Oxford University Press*. https://doi.org/10.1093/sf/soab119

K. Chung, W., Ha, H., & Kim, B. (2016). Money transfer and birth weight: Evidence from the Alaska Permanent Fund Dividend. *Economic Inquiry*, 54(1), 576-590. https://doi.org/10.1111/ecin.12235

L. Watson, B., Guettabi, M., & Reimer, M. (2019). Universal cash transfers reduce childhood obesity rates. *Institute of Social and Economic Research*, University of Alaska Anchorage. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3380033

M. Akee, R. K. Q., Copeland, W. E., & Keeler, G. (2010). Parents' incomes and children's outcomes: A quasi-experiment using transfer payments from casino profits. *American Economic Journal: Applied Economics*, 2(1), 86-115. https://doi.org/10.1257/app.2.1.86

N. Courtin, E, Muennig, P., Verma, N., Riccio, J., Lagarde, M., Vineis, P., Kawachi, I., & Avendano, M. (2018). Conditional cash transfers and health of low-income families in the US: Evaluating the Family Rewards experiment. *Health Affairs* 37, No. 3. https://doi.org/10.1377/hlthaff.2017.1271

O. Adams, E., Brickhouse, T., Dugger, R., & Bean, M. (2022). Patterns of food security and dietary intake during the first half of the child tax credit expansion. *Health Affairs* 41, No. 5. https://doi.org/10.1377/hlthaff.2021.01864

P. Sperber J., Gennetian L., Hart E., Kunin-Batson A., Magnuson K., Duncan G., Yoshikawa H., Fox N., Halpern-Meekin S., Noble K. (2023). Unconditional cash transfers and maternal assessments of children's health, nutrition, and sleep: A randomized clinical trial. *JAMA Network Open*. https://doi.org/10.1001/jamanetworkopen.2023.35237

Q. Batra, A., Jackson, K., & Hamad, R. (2023). Effects of the 2021 Expanded Child Tax Credit on adults' mental health: A quasi-experimental study. *Health Affairs* 42, No. 1. https://doi.org/10.1377/hlthaff.2022.00733

R. Yoo, P.Y., Duncan, G.J., Magnuson, K. *et al.* (2022). Unconditional cash transfers and maternal substance use: findings from a randomized control trial of low-income mothers with infants in the U.S. *BMC Public Health* 22, 897 (2022). https://doi.org/10.1186/s12889-022-12989-1

S. Kovski, N., Pilkauskas, N., Michelmore, K., & Shaefer, H. (2023). Unconditional cash transfers and mental health symptoms among parents with low incomes: Evidence from the 2021 child tax credit. *SSM – Population Health.* https://doi.org/10.1016/j.ssmph.2023.101420

T. Gennetian, L, Duncan, G., Fox, N., Halpern-Meekin, S., Magnuson, K., Noble, K., & Yoshikawa H. (2024). Effects of a monthly unconditional cash transfer starting at birth on family investments among US families with low income. *National Library of Medicine.* https://pubmed.ncbi.nlm.nih.gov/38907028/

U. Das, A., Osypuk, T., Yoo, P., Magnuson, K., Gennetian, L., Noble, K., & Bruckner, T. (2024). Poverty reduction and childhood opportunity moves: A randomized trial of cash transfers to low-income U.S. families with infants. *Health & Place.* https://doi.org/10.1016/j.healthplace.2024.103320

V. Sauval, M., Duncan, G., Gennetian, L., Magnuson, K., Fox, N., Noble, & K., Yoshikawa, H. (2024). Unconditional cash transfers and maternal employment: Evidence from the Baby's First Years study. Ihttps://doi.org/10.1016/j.jpubeco.2024.105159

W. Dailey, S., Gennetian, L., Magnuson, K., Duncan, G., Yoshikawa, H., Fox, N., & Noble, K. (2024). Child-directed speech in a large sample of U.S. mothers with low income. Child Development. https://doi.org/10.1111/cdev.14139

X. Stilwell, L., Morales-Gracia, M., Magnuson, K., Gennetian, L., Sauval, M., Fox, N., Halpern-Meekin, S., & Yoshikawa, H. (2024). Unconditional cash and breastfeeding, child care, and maternal employment among families with young children residing in poverty. *Social Science Review.* https://doi.org/10.1086/729364

Y. Adrangi, B., Barnes, W., & Berning, D. (2023). The Expanded Child Tax Credit: Impacts on Food Insufficiency Across Demographic Subgroups in the United States. The American Economist. https://doi.org/10.1177/0569434523121718

Z. Nam, J. & Kwon, S. (2024). Expansion of child tax credits and mental health of parents with low income in 2021. *Health Policy.* https://doi.org/10.1001/jamanetworkopen.2023.56419

AA. Pilkauskas, N., Michelmore, K., & Kovski, N. (2024). The effects of the 2021 child tax credit on housing affordability and the living arrangements of families with low incomes. *Demography*. https://doi.org/10.1215/00703370-11458327

BB. Berger, L. & Pac, J. (2024). Quasi-experimental evidence on the employment effects of the 2021 fully refundable monthly child tax credit. *Journal of Policy Analysis and Management.* https://doi.org/10.1002/pam.22528
CC. Ananat, E., Glasner, B., Hamilton, C., Parolin, Z., & Pignatti, C. (2024). Effects of the Expanded Child Tax Credit on employment outcomes. *Journal of Public Economics*. https://doi.org/10.1016/j.jpubeco.2024.105168
DD. Hart, E. R., Gennetian, L. A., Sperber, J. F., Penalva, R., Magnuson, K., Duncan, G. J., Halpern-Meekin, S., Yoshikawa, H., Fox, N. A., & Noble, K. G. (2024). The effect of unconditional cash transfers on maternal assessments of children's early language and socioemotional development: Experimental evidence from U.S. families residing in poverty. *Developmental Psychology.* https://doi.org/10.1037/dev0001824
EE. Gennetian, L., Maury, M., Stilwell, L., Shah, H., Magnuson, K., Noble, K., Duncan, G., Fox, N., Halpern-Meekin, S., & Yoshikawa, H. (2024). The impact of monthly unconditional cash on food security, spending, and consumption: Three year follow-up findings from the Baby's First Years study. *Social Science Research Network.* http://dx.doi.org/10.2139/ssrn.4781670
FF. Pilkauskas, N., Michelmore, K., Kovski, N., & Shaefer, H. (2024). The Expanded Child Tax Credit and economic wellbeing of low-income families. *Journal of Population Economics.* https://doi.org/10.1007/s00148-024-01047-2
GG. Donahoe J., Brown-Podgorski B., Gaire S., Krans E., & Jarlenski M., (2025) Advanced child tax credit monthly payments and substance use among US parents. *JAMA Health Forum.* https://doi.org/10.1001/jamahealthforum.2024.4699
HH. Escueta, M., Gennetian, L., Magnuson, K., Halpern-Meekin, S., Noble, K., & Yoshikawa, H. (2025). Unconditional cash and intimate partner violence. *Social Science Research Network.* http://dx.doi.org/10.2139/ssrn.5150249
II. Noble, K., Magnuson, K., Duncan, G., Gennetian, L., Yoshikawa, H., Fox, N., Halpern-Meekin, S., Troller-Renfree, S., Han, S., Egan-Dailey, S., Nelson, T., Nelson, J., Black, S., Georgieff, M., & Karhson, D. (2024). The efect of a monthly unconditional cash transfer on children's development at four Years of age: A randomized controlled trial in the U.S. *Society for the Improvement of Psychological Science.* https://doi.org/10.31234/osf.io/udbt9
JJ. Troller-Renfree, S., Costanzo, M., Duncan, G., Magnuson, K., Gennetian, L., Yoshikawa, H., Black, S., Karhson, D., Georgieff, M., Nelson, J., Nelson, T., Fox, N., & Noble, K. (2024). The impact of a monthly unconditional cash transfer on child brain activity: A 4-year follow-up. *Society for the Improvement of Psychological Science.* https://doi.org/10.31234/osf.io/dw2em
KK. Magnuson, K., Duncan, G., Yoshikawa, H., Yoo, P., Han, S., Gennetian, S., Halpern-Meekin, S., Fox, N., & Noble, K. (2024). Can cash transfers improve maternal well-being and family processes among families with young children? An experimental analysis. *Social Science Research Network.* http://dx.doi.org/10.2139/ssrn.4955765

Additional information can be found in the cash transfers evidence review, available in the Prenatal-to-3 Policy Clearinghouse.

PERINATAL TELEHEALTH SERVICES

What are perinatal telehealth services and why are they important? How can states increase access to perinatal telehealth services?

All references for these sections are provided in the Notes and Sources section at the bottom of each webpage.

What impact do perinatal telehealth services have, and for whom?

The following studies meet standards of strong causal evidence to demonstrate the impacts of perinatal telehealth services for the health and wellbeing of young children and their families:

A. Butler Tobah, Y., LeBlanc, A., Branda, M., Inselman, J., Morris, M., Ridgeway, J., Finnie, D., Theiler, R., Torbenson, V., Brodrick, E., de Mooij, M., Gostout, B., & Famuyide, A. (2019). Randomized comparison of a reduced-visit prenatal care model enhanced with remote monitoring. *American Journal of Obstetrics and Gynecology, 221*(638), e1-e8. https://doi.org/10.1016/j.ajog.2019.06.034

B. Ferrara, A., Hedderson, M., Albright, C., Ehrlich, S., Quesenberry, C., Peng, T., Feng, J., Ching, J., & Crites, Y. (2011). A pregnancy and postpartum lifestyle intervention in women with gestational diabetes mellitus reduces diabetes risk factors. *Diabetes Care, 34,* 1519-1525. http://doi.org/10.2337/dc10-2221

C. Ferrara A., Hedderson, M., Brown, S., Ehrluch, S., Tsai, A., Feng, J., Galarce, M., Marcovina, S., Catalano, P., & Quesenberry, C. (2020). A telehealth lifestyle intervention to reduce excess gestational weight gain in pregnant women with overweight or obesity (GLOW): A randomised, parallel-group, controlled trial. *The Lancet Diabetes & Endocrinology, 8*, 490-500. https://doi.org/10.1016/s2213-8587(20)30107-8

D. Homko, C., Deeb, L., Rohrbacher, K., Mulla, W., Mastrogiannis, D., & Gaughan, J. (2012). Impact of a telemedicine system with automated reminders on outcomes in women with gestational diabetes mellitus. *Diabetes Technology & Therapeutics, 14*(7), 624-629. http://doi.org/10.1089/dia.2012.0010

E. Ahmed, A., Roumani, A., Szucs, K., Zhang, L., & King, D. (2016). The effect of interactive Web-based monitoring on breastfeeding exclusivity, intensity, and duration in healthy term infants after hospital discharge. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 45*(2), 143-154. http://doi.org/10.1016/j.jogn.2015.12.001

F. Reeder, J., Joyce, T., Sibley, K., Arnold, D., & Altindag, O. (2014). Telephone peer counseling of breastfeeding among WIC participants: A randomized controlled trial. *Pediatrics, 134*(3), 700-709. http://doi.org/10.1542/peds.2013-4146

G. Hirshberg, A., Downes, K., & Srinivas, S. (2018). Comparing standard office-based follow-up with text-based remote monitoring in the management of postpartum hypertension: A randomized clinical trial. *BMJ Quality & Safety, 27*, 871-877. http://doi.org/10.1136/bmjqs-2018-007837

H. Suharwardy, S., Ramachandran, M., Leonard, S. A., Gunaseelan, A., Lyell, D. J., Darcy, A., Robinson, A., & Judy, A. (2023). Feasibility and impact of a mental health chatbot on postpartum mental health: A randomized controlled trial. *AJOG Global Reports, 3*(3), 100165. https://doi.org/10.1016/j.xagr.2023.100165

I. Uscher-Pines, L., Kapinos, K., Waymouth, M., Howell, K., Alvarado, G., Ray, K., Demirci, J., Mehrotra, A., Rogers, R., James, K. F., & DeYoreo, M. (2025). Telelactation Services and Breastfeeding by Race and Ethnicity: A Randomized Clinical Trial. *JAMA Network Open, 8*(2), e2461958. https://doi.org/10.1001/jamanetworkopen.2024.61958

Additional information can be found in the perinatal telehealth services evidence review, available in the Prenatal-to-3 Policy Clearinghouse.

SHARED BOOK READING PROGRAMS

What are shared book reading programs and why are they important? How can states increase access to shared book reading programs?

All references for these sections are provided in the Notes and Sources section at the bottom of each webpage.

What impact do shared book reading programs have, and for whom?

The following studies meet standards of strong causal evidence to demonstrate the impacts of shared book reading programs for the health and wellbeing of young children and their families:

A. Jones, V. F., Franco, S. M., Metcalf, S. C., Popp, R., Staggs, S., & Thomas, A. E. (2000). The value of shared book reading in a clinic-based literacy intervention program. *Clinical Pediatrics, 39*(9), 535-541. DOI:10.1177/000992280003900905
B. Golova, N., Alario, A. J., Vivier, P. M., Rodriguez, M., & High, P. C. (1999). Literacy promotion for Hispanic families in a primary care setting: A randomized, controlled trial. *Pediatrics, 103*(5), 993-997. https://doi-org/10.1542/peds.103.5.993
C. High, P. C., LaGasse, L., Becker, S., Ahlgren, I., & Gardner, A. (2000). Literacy promotion in primary care pediatrics: Can we make a difference? *Pediatrics, 105*(3), 927-934. https://doi.org/10.1542/peds.105.S3.927
D. Guevara, J. P., Erkoboni, D., Gerdes, M., Winston, S., Sands, D., Rogers, K., Haecker, T., Jimenez, M. E., &Mendelsohn, A. L. (2020). Effects of early literacy promotion on child language development and home reading environment: A randomized controlled trial. *The Journal of Pediatrics: X*, 2, 100020. https://doi.org/10.1016/j.ympdx.2020.100020
E. Jimenez, M. E., Crabtree, B. F., Hudson, S. V., Mendelsohn, A. L., Lima, D., Shelton, P. A., Veras, J., Lin, Y., Pellerano, M., Morrow, L., & Strom, B. L. (2021). Enhancing Reach Out and Read with a video and text messages: A randomized trial in a low-income predominantly Latino sample. *Academic Pediatrics, 21*(6), 968-976. doi:10.1016/j.acap.2021.02.011.

Additional information can be found in the shared book reading programs evidence review, available in the Prenatal-to-3 Policy Clearinghouse.

EMERGENT LITERACY COACHING PROGRAMS

What are emergent literacy coaching programs and why are they important? How can states increase access to emergent literacy coaching programs?

All references for these sections are provided in the Notes and Sources section at the bottom of each webpage.

What impact do emergent literacy coaching programs have, and for whom?

The following studies meet standards of strong causal evidence to demonstrate the impacts of emergent literacy coaching programs for the health and wellbeing of young children and their families:

A. Cunha, F., Gerdes, M., Hu, Q., & Nihtianova, S. (2023). Language environment and maternal expectations: An evaluation of the LENA Start program. NBER Working paper Series (No. 30837).https://www.nber.org/papers/w30837

B. Leung, C. Y. Y., Trinidad, J. E., & Suskind, D. L. (2023). Increases in language input are sustained among mothers of low SES: Evidence from a randomized controlled trial. Science and Practice, 23(1), 52-84.https://doi.org/10.1080/15295192.2022.2115912
C. Leung, C. Y. Y., Hernandez, M. W., & Suskind, D. L. (2020). Enriching home language environment among families from low-SES backgrounds: A randomized controlled trial of a home visiting curriculum. Early Childhood Research Quarterly, 50(1), 24-35. https://doi.org/10.1016/j.ecresq.2018.12.005

Additional information can be found in the emergent literacy coaching programs evidence review, available in the Prenatal-to-3 Policy Clearinghouse.

CHILD CARE WORKFORCE RETENTION INCENTIVES

What are child care workforce retention incentives and why are they important? How can states increase access to child care workforce retention incentives?

All references for these sections are provided in the Notes and Sources section at the bottom of each webpage.

What impact do child care workforce retention incentives have, and for whom?

The following studies meet standards of strong causal evidence to demonstrate the impacts of child care workforce retention incentives for the health and wellbeing of young children and their families:

A. Gable, S., Rothrauff, T. C., Thornburg, K. R., & Mauzy, D. (2007). Cash incentives and turnover in center-based child care staff. *Early Childhood Research Quarterly, 22*(3), 363–378. https://doi.org/10.1016/j.ecresq.2007.06.002
B. Herbst, C. M. (2018). The impact of quality rating and improvement systems on families' child care choices and the supply of child care labor. *Labour Economics, 54,* 172–190. https://doi.org/10.1016/j.labeco.2018.08.007
C. Bassok, D., Doromal, J. B., Michie, M., & Wong, V. C. (2021). The effects of financial incentives on teacher turnover in early childhood settings: Experimental evidence from Virginia. Virginia Early Childhood Foundation. https://vecf.org/wp-content/uploads/2021/12/6de6fd54-e921-4c88-a452-ad7cabccc362.pdf
D. Schochet, O. (2023). Jobs in the balance: The early employment impacts of Washington, DC's early childhood educator Pay Equity Fund. Mathematica. https://www.mathematica.org/publications/jobs-in-the-balance-the-early-employment-impacts-of-washington-dcs-early-childhood-educator-pay
E. Schochet, O. (2024). Jobs in the balance: the two-year labor market impacts of Washington, DC's early childhood educator Pay Equity Fund. Mathematica. https://www.mathematica.org/publications/two-year-labor-market-impacts-of-washington-dcs-early-childhood-educator-pay-equity-fund

Additional information can be found in the child care workforce retention incentives evidence review, available in the Prenatal-to-3 Policy Clearinghouse.