MISSING OUT:

Education Inequality for U.S. Children Deepened by Book Deserts and Lack of Diverse Representation in Children's Literature

Research and Feasibility Study Findings with Recommendations for Room to Read Programmatic Response

Room to Read®

TATCHA

Executive Summary

The United States (U.S.) is one of the largest and wealthiest countries in the world, however learning opportunity is not equitably distributed. In the U.S., there is an ongoing need to address all forms of inequity and Room to Read seeks to bring about change through our programs in education. With funding from Tatcha, the global luxury skincare brand, Room to Read commissioned researchers[1] to conduct a feasibility study and research. The findings, combined and summarized in this report by Room to Read, inform Room to Read's contextualized programmatic response on where and for whom the organization can best apply its unique expertise to provide children with opportunities to develop strong literacy skills.

The following feasibility study and analysis looks at geographic areas and communities in need across the U.S. and recommends those with the most potential for strategic support. These recommendations were achieved by engaging experts and practitioners as well as analyzing existing published data gathered by academic, nonprofit and government agencies.

These data confirm that there is a need for focus on childhood literacy across regions where **Black, Latinx, Native and white Americans[2] are living in poverty and/or in rural environments, both of which create extreme barriers to learning. Children in foster care as well as immigrant and refugee populations face increased vulnerabilities.**

Five regions not necessarily adhering to state or county lines were identified including the **Great Plains**, the **Southwest**, the **Deep South**, **Central California**, and **Appalachia**. This study identified specific starting points for support within these regions including the **Dakotas**, the **Navajo Nation**, **Mississippi**, **Central Valley Region**, and **West Virginia**. Additional research was conducted into the **Bay Area** in **California; New York and Newark**, **NJ;** and **Collier County, Florida; given Room to Read's network in these areas.[3]**

The study finds that the U.S. does not adequately ensure all of its children develop the literacy skills necessary to facilitate informed choices and empowered lives. At least half of homes across the U.S. do not have 100 books in them, qualifying them as "book deserts".[4] There are a greater number of book deserts in poor counties across the U.S. and Black, Latinx and Native American families are disproportionately affected. Diversity in children's literature is significantly lacking in the U.S and white representation still

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[1]Choice-filled Lives Network and Archaa Shrivastav.

[2] While these are primary racial groups identified by the study that could benefit from Room to Read programs in large numbers, we recognize the presence of many other racial and ethnic identities including Asian-Americans, biracial and multiracial children and will make every effort to provide relevant materials from our diverse book collections or through additional book development and associated programming for their use in the geographic areas where we will be working.

[3] Room to Read's geographic strategy in the U.S will be informed by a combination of study findings and other factors including operations, partner identification and resources.

[4]100 books per home is used as the key metric to identify book deserts on the book desert map produced by Unite for Literacy. This metric originated from a study (Evans, et al, 2010) that indicates 100 books as an optimal number of books for entry into high school (early school success).

dominates the children's literature market. Over 83 percent of children's books are about white characters, animals or things. Between 2018-2019, 44 percent of children's books were about white characters alone and 80.4 percent of books were by white authors and/or illustrators.[5]

Given the overwhelming needs for additional literacy support, we are able to conclude that Room to Read's experience, science-based programming, and capacity to develop books for communities who are underrepresented in children's literature will add value to existing literacy services and result in positive change. In particular, Room to Read's expertise working with local authors, illustrators, publishers, and printers to develop books quickly at high-quality to meet specific community needs, irrespective of profitability, makes the organization particularly well-suited to tackle the lack of diversity and accessibility to high-quality children's books in the geographies and communities noted above. This study recommends that Room to Read invests in children's book publishing and associated programs to promote children's literacy across communities from low-income backgrounds in the United States.

[5] *CCBC diversity statistics.* University of Wisconsin-Madison's Cooperative Children's Book Center. (n.d.). https://ccbc.education.wisc.edu/literature-resources/ccbc-diversity-statistics/

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Research Study Background & Objectives

Room to Read's goal is to ensure children have the best start possible in literacy, learning and discovering the joy of reading. Founded in 2000, Room to Read's mission is to transform the lives of millions of children by focusing on literacy and gender equality through education in underserved communities around the world. Room to Read has benefitted more than 23 million children across 20 countries as of the end of 2020. Now Room to Read is further expanding its efforts by selectively contributing its expertise to communities facing systemic education inequities in high income countries.

In the U.S., inequities exist in childhood literacy outcomes that are correlated with demographic differences such as income, geographic location (e.g., urban versus rural), race, ethnicity and languages spoken in the home. This study focuses on key research areas including geographies and populations with the greatest educational needs, as well as the diversity of representation and voice in book publishing.

Among the many reasons that children across the U.S. are underserved are so-called "book deserts" where children have little or no access to books at home, lack high-quality and diverse books, and may not be supported by a literary culture in their communities. Also, major publishers may not focus on these children's needs due to the perceived lack of profitability. Due to these and other socioeconomic factors, children in under-resourced communities are unlikely to meet minimum proficiency levels for literacy in standardized exams.

Given the inequitable access to books and a lack of important literary experiences, Room to Read recognizes an opportunity for social impact by supporting initiatives with underserved populations in the U.S. Particularly, partnering with local organizations focused on family engagement and literacy development outside of schools in disadvantaged communities can help strengthen access to high-quality reading materials and the literary experiences of young learners at great scale. Room to Read can add value to the existing children's literacy landscape in the U.S. by leveraging its 21-year experience working on primary literacy across diverse environments; utilizing its global collection of over 1,800 original children's books and over 1,400 adaptations in 43 languages; and publishing specialized books in the U.S. with characters, themes and stories relevant to the lives of children in marginalized communities that authentically reflect their identities and cultures.

The research in this report is part landscape-analysis and part feasibility study, designed to provide the basis for Room to Read's implementation strategy in the U.S. for the next five years.

Key Finding 1:
Socioeconomic inequities and "book deserts" contribute to poor educational performance in the U.S.

Access to Books is Critical

One of the most important factors influencing a child's success in early education is having books in the home and the opportunities for literacy development.[6] Studies have long shown that access to printed learning materials early on in a child's development has both an immediate and long-term effect on their vocabulary, knowledge and comprehension.[7]

If an adult reads to a child at least three times a week, that child is more than twice as likely to develop the reading skills that puts them into the top 25 percent for reading (compared to those children who are read to fewer than three times a week).[8] Children who grow up in homes with many books receive three years more schooling than those in homes without books. The National Assessment of Educational Progress (NAEP) data shows that students who report having books at home are more likely to be proficient at reading. In 2015 less than 15 percent of students with fewer than 10 books at home were proficient at reading while 50 percent of students with more than 100 books scored proficient or higher.[9]

These findings are true throughout the U.S. regardless of parents' education, occupation, or class. Early access to books at home fosters proficiencies in both literacy and numeracy and, ultimately, leads to lifelong educational outcomes.[10]

Book deserts

The concept of having 100 books may seem like a luxury in mid- to high-income households let alone low-income households, however the difference between having books and not having books in the home makes a significant difference to early literacy development. The research clearly demonstrates that when children have access to books and reading is encouraged in the home, they develop the habit of reading and become lifelong learners. The consensus is that having stories read aloud by a parent, teacher or community member prepares children for longer-term academic success. Children who are read aloud

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[6] Anderson, R. C., & And Others. (1985). *Becoming a Nation of Readers: The Report of the Commission on Reading.* National Academy of Education. https://eric.ed.gov/?id=ED253865

[7] Neuman, S. B., &; Moland, N. (2016). *Book deserts: The consequences of income segregation on children's access to print.* Urban Education, 54(1), 126–147. https://doi.org/10.1177/0042085916654525

[8] Denton, K., & West, J. (2002). *Children's reading and mathematics achievement in kindergarten and first grade.* National Center for Education Statistics. https://nces.ed.gov/pubs2002/2002125.pdf

[9] *The Nation's Report Card* | NAEP. (n.d.). National Center for Education Statistics. Retrieved December 20, 2020, from https://nces.ed.gov/nationsreportcard/

[10] Evans, M. D. R., Kelley, J., Sikora, J., & Treiman, D. J. (2010). *Family scholarly culture and educational success: Books and schooling in 27 nations.* Research in Social Stratification and Mobility, 28(2), 171–197. https://doi.org/10.1016/j.rssm.2010.01.002

to at home develop a stronger vocabulary, more background knowledge, better expressive and receptive language abilities, and a better understanding of how words should sound than those children who are not well-read-to.[11]

Despite this evidence that the presence of books makes a difference, at least half of all homes across the U.S. have less than 100 books. The organization Unite for Literacy refers to the scarcity of books in the home as "book deserts", a term that has been adopted within these research findings. The estimated percentage of homes within the U.S. with more than 100 books ranges from five to 51 percent.[12] Book deserts are not spread evenly across the country either: there are greater book deserts in poor counties and for Black and Latinx families.[13]

Figure 1: Book Desert Maps, United States[14]
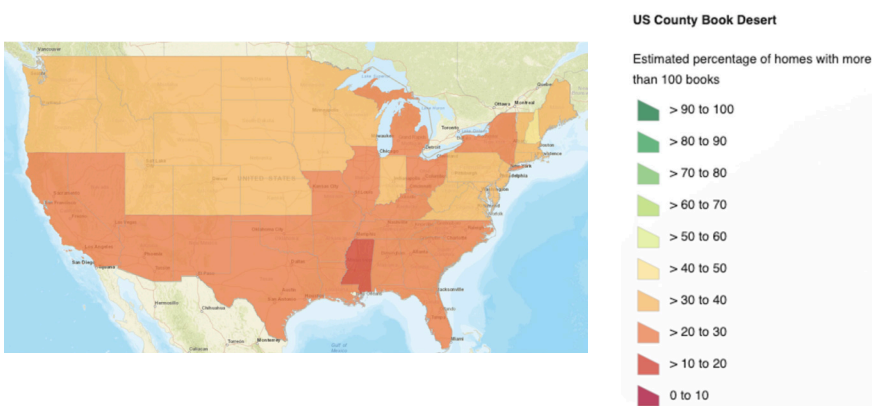
Book deserts are not necessarily confined to one state, but rather corridors of underserved areas that run across regions of the United States. Figure 2 is an example of a book desert map across the deep south. These are all areas with high poverty and also higher proportions of Black Americans.

Figure 2: Book Desert Maps (deep south), United States[15]
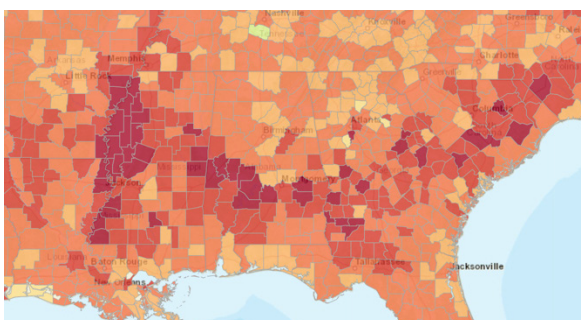
[11] Neuman, S. B., & Moland, N. (2016). *Book deserts: The consequences of income segregation on children's access to print.* Urban Education, 54(1), 126–147. https://doi.org/10.1177/0042085916654525

[12] Unite for Literacy. (2020). *Global Book Desert Map.* Unite for Literacy. http://www.uniteforliteracy.com. Mississippi is the only state in which every county has 20 percent or fewer homes with 100+ books.

[13] Sawyer, B. E., Cycyk, L. M., Sandilos, L. E., & Hammer, C. S. (2018). 'So many books they don't even all fit on the bookshelf': An examination of low-income mothers' home literacy practices, beliefs and influencing factors. *Journal of Early Childhood Literacy*, 18(3), 338–372. https://doi.org/10.1177/1468798416667542

U.S. DoE. (2020). *Access to Reading Materials: Circulation of children's library materials, by school district. U.S. Department of Education.* https://www2.ed.gov/datastory/bookaccess/index.html

[14, 15] Unite for Literacy. (2020). Global Book Desert Map. Unite for Literacy. https://www.uniteforliteracy.com/corp/esri

U.S. Education Landscape

There are almost 50.8 million students in 130,930 kindergarten to Year 12 (K-12) schools that are organized into 13,598 regular school districts in the U.S.[16] About 70 percent of students are in urban (30 percent) or suburban (40 percent) schools, while 19 percent of students attend rural schools, and 11 percent attend schools in a small town.[17]

Education is a state and local responsibility in terms of funding and regulation, while the federal government primarily intervenes to prevent legally sanctioned discrimination from occurring in the system (e.g., segregation, access for students with disabilities, equal access for girls and women). Therefore, states and communities are responsible for the establishment of schools, curriculum/pedagogy, and enrollment and graduation requirements.

In 2017, an estimated $1.15 trillion was spent on all levels of education in the U.S.[18] The 92 percent spent on elementary and secondary education came from non-federal sources, while just 8 percent came from the federal Department of Education. The financing of schools is primarily sourced from funds obtained through local property taxes; hence, the spending per pupil can vary greatly based on geographic location and local wealth or income levels, driving further inequity in the system.

U.S. school funding is the most inequitable of its peers in industrialized nations.[19] The wealthiest states in the U.S. spend around three times more than the poorest states,[20] and even within states significant inequity can exist. The wealthiest districts can spend two to three times more per pupil than poorer districts do, and schools that have high percentages of students of color spend, on average, $1,800 less per student than those schools with a low percentage.[21] Systemic racism in the U.S. has resulted in

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[16] NCES. (2019). *Number of Educational Institutions, by level and control of institution:* Selected years, 1980-81 through 2017-18 (Table 105.50; Digeszt of Education Statistics, 2019). National Center for Education Statistics. https://nces.ed.gov/programs/digest/d19/tables/dt19_105.50.asp?current=yes

Riser-Kositsky, M. (2019, January 3). Education Statistics: Facts About American Schools. *Education Week.* https://www.edweek.org/leadership/education-statistics-facts-about-american-schools/2019/01

[17] *Public elementary and secondary school enrollment, number of schools, and other selected characteristics, by locale: Fall 2014 through fall 2017* (214.40; Digest of Education Statistics). (2019). National Center for Education Statistics. https://nces.ed.gov/programs/digest/d19/tables/dt19_214.40.asp

[18] *Federal Role in Education.* (2017, May 25). [Websites]. US Department of Education (ED). https://www2.ed.gov/about/overview/fed/role.html

[19] Darling-Hammond, L. (2019). *Investing for student success: Lessons from state school finance reforms.* Learning Policy Institute.

[20] Baker, B. D., Sciarra, D. G., & Farrie, D. (2018). *Is School Funding Fair?: A National Report Card.* Education Law Center. https://edlawcenter.org/assets/files/pdfs/publications/Is_School_Funding_Fair_7th_Editi.pdf

[21] Adamson, F., & Darling-Hammond, L. (2012). Funding Disparities and the Inequitable Distribution of Teachers: Evaluating Sources and Solutions. *Education Policy Analysis Archives*, 20(0), 37. https://doi.org/10.14507/epaa.v20n37.2012

LPI. (2020). *The Federal Role in Advancing Education Equity and Excellence* (Policy Brief). Learning Policy Institute. https://learningpolicyinstitute.org/product/advancing-education-2020-brief

segregation based on race. Schools are becoming more segregated by race and an increasing number of them are hyper-segregated.[22]

Performance & Inequality

Increasing segregation and inequity of funding means that the inequality we observe in the education system is largely a reflection of the socioeconomic indicators of demography and geography.

Research indicates that children from low-income backgrounds and Black, Latinx and Native American communities are more likely to:

- attend more poorly rated schools[23]
- be in schools with lower rates of funding[24]
- attend highly segregated schools[25]
- be tracked in lower academic courses, regardless of ability[26]
- be suspended and expelled at higher rates[27]
- experience low-trust, low-belonging, and/or feel their self-integrity is under threat[28]
- experience stereotype threat and/or experience school as a hostile environment[29]
- dropout of school (five times more likely to dropout than higher-income peers)[30]

[22] GAO. (2016). *K-12 Education: Better Use of Information Could Help Agencies Idenzisparities and Address Racial Discrimination* [Report to Congressional Requesters]. Government Office of Accountablity. https://www.gao.gov/assets/680/676745.pdf

[23] Orfield, G. (2001). *Schools more separate: Consequences of a decade of resegregation*. Civil Rights Project, Harvard University, 124 Mt. https://eric.ed.gov/?id=ED459217

[24] Adamson, F., & Darling-Hammond, L. (2012). Funding Disparities and the Inequitable Distribution of Teachers: Evaluating Sources and Solutions. *Education Policy Analysis Archives*, 20(0), 37. https://doi.org/10.14507/epaa.v20n37.2012

[25] GAO. (2016). *K-12 Education: Better Use of Information Could Help Agencies Identify Disparities and Address Racial Discrimination* [Report to Congressional Requesters]. Government Office of Accountablity. https://www.gao.gov/assets/680/676745.pdf

[26] Hallinan, M., & Oakes, J. (1994). Exchange on tracking. *Sociology of Education*, 67(2), 79–91.

[27] Anyon, Y., Jenson, J. M., Altschul, I., Farrar, J., McQueen, J., Greer, E., Downing, B., & Simmons, J. (2014). The persistent effect of race and the promise of alternatives to suspension in school discipline outcomes. *Children and Youth Services Review*, 44, 379–386. de Brey et al. 2019 doing research for IES found that, "In 2013–14, about 2.6 million public school students (5.3 percent) received one or more out-of-school suspensions. A higher percentage of Black students (13.7 percent) than of students from any other racial/ethnic group received an out-of-school suspension, followed by 6.7 percent of American Indian/Alaska Native students, 5.3 percent of students of Two or more races, 4.5 percent each of Hispanic and Pacific Islander students, 3.4 percent of white students, and 1.1 percent of Asian students." (p.v).

[28] Cohen, G. L., & Garcia, J. (2008). Identity, belonging, and achievement: A model, interventions, implications. *Current Directions in Psychological Science*, 17(6), 365–369.

[29] Calabrese, R. L. (1990). The public school: A source of alienation for minority parents. *The Journal of Negro Education*, 59(2), 148–154. https://doi.org/10.2307/2295640

[30] Balfanz, R., Bridgeland, J. M., Bruce, M., & Fox, J. H. (2012). *Building a grad nation: Progress and challenge in ending the high school dropout epidemic*. Annual Update, 2012. Civic Enterprises.

The same pattern emerges in literacy achievement. The NAEP scores indicate significantly lower levels of proficiency and advanced literacy amongst Black, Latinx, and Native Americans relative to other groups *(see Figure 3).*

Figure 3: Nation's Report Card Achievement Level Data for 4th Grade Reading by Race/Ethnicity [31]
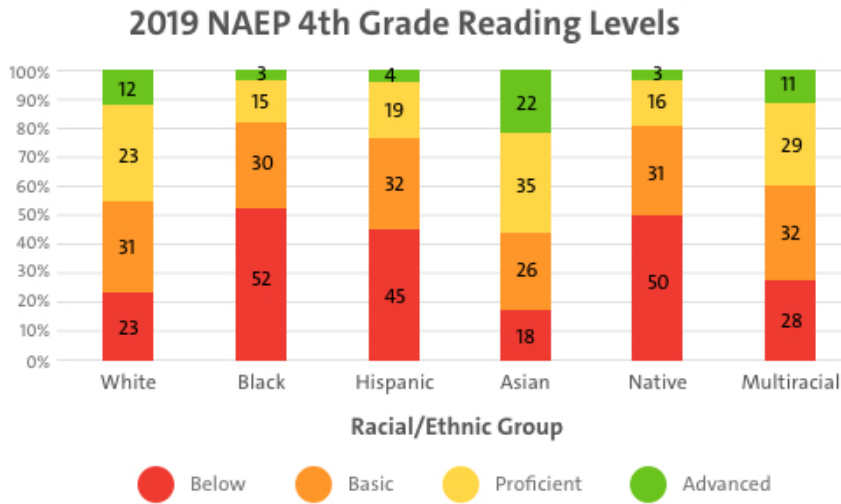
Early literacy development requires access to high quality materials, exposure to implicit modeling of reading-behavior, and quality explicit instruction or instructive interactions.[32]

Access to Early Childhood Education

Early childhood education also has an impact on early grade reading levels, but high-quality early childcare in the U.S. is expensive. In 30 states, it costs more to send a child to childcare than it does to send them to college; and, there is not one state where a full-time minimum wage worker can afford childcare.[33] Around 66 percent of children under the age of six who require early childhood education will have both parents or their only guardian in the workforce, yet childcare subsidies reach only 15 percent of eligible children from low-income families.[34] Nearly half of all three-year-olds and one third of four-year-olds do not attend preschool or early childcare education of any kind.[35]

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[31] *NAEP report cards*. (n.d). https://www.nationsreportcard.gov/

[32] Wechsler, M., Kirp, D., Ali, T. T., Gardener, M., Maier, A., Melnick, H., & Shields, P. M. (2016). *The Road to High-Quality Early Learning: Lessons from the States*. Learning Policy Institute. https://learningpolicyinstitute.org/product/factsheet-road-high-quality-early-learning-lessons-states

[33] Child Care Aware. (2019). *The U.S. and the High Cost of Childcare: An Examination of a Broken System*. Child Care Aware of America. 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-us-and-the-high-price-of-child-care-2019%2F

LPI. (2020). **The Federal Role in Advancing Education Equity and Excellence** (Policy Brief). Learning Policy Institute. https://learningpolicyinstitute.org/product/advancing-education-2020-brief

[34] Chien, N. (2019). *Factsheet: Estimates of Child Care Eligibility & Receipt for Fiscal Year 2015*. U.S. Department of Health & Human Services. https://aspe.hhs.gov/system/files/pdf/260361/CY2015ChildCareSubsidyEligibility.pdf

[35] Duffin, E. (2020, April 30). Percentage of pre-school enrollment in the U.S. by age and type 2019. *Statista*. https://www.statista.com/statistics/315074/percentage-of-pre-school-enrollment-in-the-us-by-age-and-type/

Socioeconomic Factors & Inequality

While the U.S. is third in land area and population, it is still the largest economy in the world — and has been since the year 1871. With a Gross Domestic Product of $21.44 trillion, the U.S. economy comprises nearly one quarter of the global economy.[36] The U.S. share of the global economy is greater than the lowest 173 countries combined (see chart below), and the GDP per capita is seventh highest in the world at $63,051.[37]

Figure 4: Percent Share of the Global Economy [38]
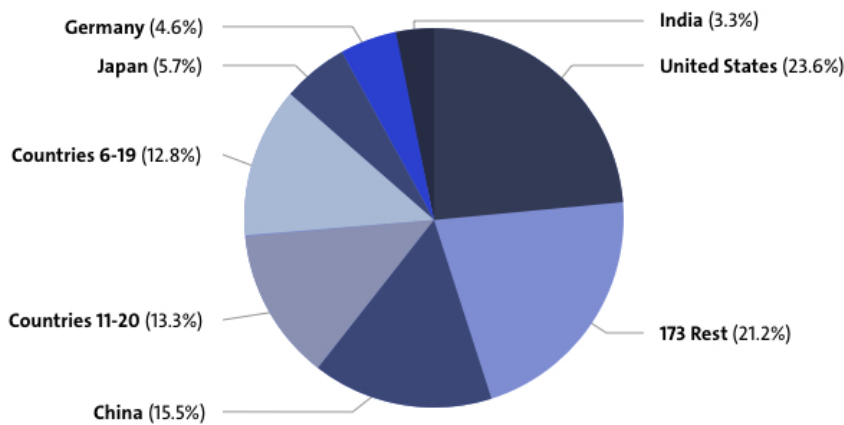
On this basis, the story of the U.S. is an overwhelming success. However, per capita income is calculated as an average, which masks the true extreme inequality that exists. The U.S. is the most economically unequal country of all its developed peers, including the entire G7.[39] In 2017, the Gini coefficient[40] of the U.S. was 0.434, while the range in other G7 nations was from 0.326 in France to 0.392 in the UK.[41]

Despite having the largest economy and the seventh highest per capita income, the U.S. also has one of the highest rates of poverty and particularly child poverty compared to its fellow OECD countries. In fact, the U.S. has a higher percentage of children living in poverty than Mexico, its neighbor. *(see Figure 5).*

[36] *GDP by Country — Worldometer.* (n.d.). Retrieved December 20, 2020, from https://www.worldometers.info/gdp/gdp-by-country/

[37] List of countries by GDP (PPP) per capita. (2020). In *Wikipedia.* https://en.wikipedia.org/w/index.php?title=List_of_countries_by_GDP_(PPP)_per_capita&oldid=995484882. This is calculated using "purchasing power parity" meaning it is adjusted to consider the cost of goods and services in each country as well as the raw dollar amount per capita.

[38] International Monetary Fund. (n.d.). *World Economic Outlook Databases*. IMF. Retrieved December 21, 2020, from https://www.imf.org/en/Publications/SPROLLs/world-economic-outlook-databases

[39] Schaeffer, K. (2020, January 7). 6 facts about economic inequality in the U.S. *Pew Research Center*. https://www.pewresearch.org/fact-tank/2020/02/07/6-facts-about-economic-inequality-in-the-u-s/

[40] The Gini coefficient is a widely used measure of income inequality, or a measure of the distribution of income across a population. The coefficient ranges from 0 (0%), or perfect equality, to 1 (100%), or complete inequality.

[41] Horowitz, J. M., Igielnik, R., & Kochhar, R. (2020, January 9). Trends in U.S. income and wealth inequality. *Pew Research Center's Social & Demographic Trends Project.* https://www.pewsocialtrends.org/2020/01/09/trends-in-income-and-wealth-inequality/

Figure 5: Proportion of children living in poverty in the OECD countries in 2017 [42]
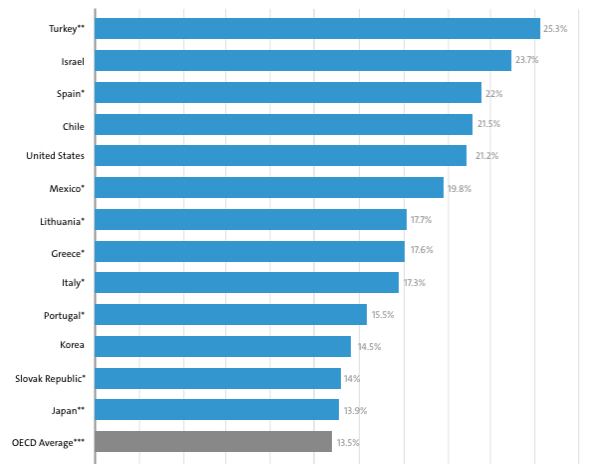
Poverty in the U.S. has racial and geographic dimensions. In 2019, 25.4 percent of Native Americans, 20 percent of Black Americans, and 20 percent of Latinx Americans lived in poverty, while the poverty rate for white Americans is 9.6 percent.[43]

In 2017, the poverty rate in rural areas was 16.4 percent and only 12.9 percent in urban areas, and child poverty was also higher in rural areas (25 percent) compared to urban areas (20 percent). The total numbers of child poverty in rural areas were dominated by white Americans (65 percent), however their rate of poverty was just 13.5 percent compared to that of 30 percent of Black children, and 31 percent of Native American children in rural areas.[44]

[42] Statista. (2020, January). *Child poverty in OECD countries 2017*. https://www.statista.com/statistics/264424/child-poverty-in-oecd-countries/

[43] Cookson, P. (2020, October 6). A World of Hardship: Deep Poverty and the Struggle for Educational Equity. *Learning Policy Institute: Learning in the Time of COVID*. https://learningpolicyinstitute.org/blog/covid-deep-poverty-struggle-education-equity

Evich, H. B. (2020, July 6). Stark racial disparities emerge as families struggle to get enough food. POLITICO. https://www.politico.com/news/2020/07/06/racial-disparities-families-struggle-food-348810

COVID has deepened both the depth of poverty and the gap: Nearly 4 in 10 Black and Latino households with children are struggling to feed their families - 29% of black households and 24% of Hispanic households reported their kids hadn't eaten enough the week prior.

[44] IFRP. (2020). *Many Rural Americans Are Still "Left Behind"* (No. 44-2020; Fast Focus Research/Policy Brief). Institute for Research on Poverty - UW Madison. https://www.irp.wisc.edu/resource/many-rural-americans-are-still-left-behind/

USDA. (2018). *Rural America at a Glance*, 2018 Edition (Rural America at a Glance, p. 6). United State Department of Agriculture.

Figure 6: Rates of Child Poverty in Rural Areas in the U.S.by County [45]
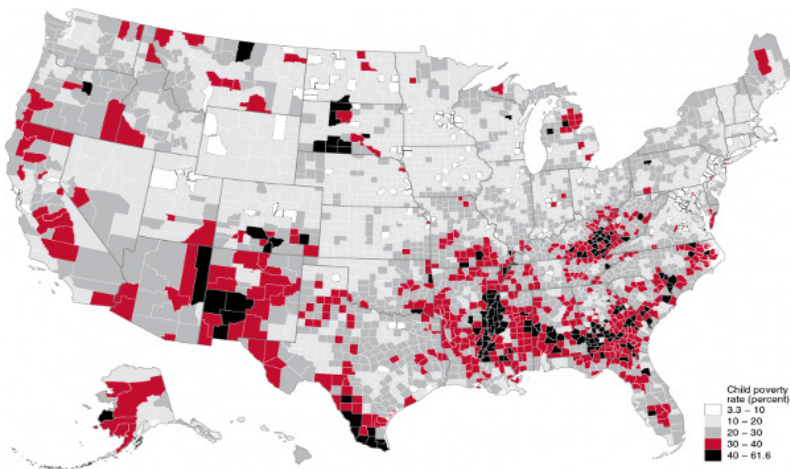
As high as these poverty rates are for a wealthy country such as the U.S., it's the added societal harm that high levels of inequality wreak that is specifically detrimental to health and education – particularly for children.[46] Wilkinson & Pickett (2011) researched the consequences of inequality on wealthy societies and found diversity in the list of social ills caused by or exacerbated by it, including:

- Poorer **health** - increased obesity, heart disease, and decreased life expectancy
- Decreased **educational performance**, particularly of poorer children
- Increased **crime**, especially violent crime and homicides, and increased incarceration for all types of crime
- Increased **mental illness** and low sense of psychological well-being
- Increased proportion of **teenage pregnancies, infant mortality** and decreased child well-being overall
- **Decreased social mobility** or 'equality of opportunity' (high likeliness of a child remaining in their parent's income stratum)
- **Diminished levels of trust** in, and connectedness with, fellow citizens

According to Wilson & Pickett, developed countries with high levels of inequality are societies that have achieved material success but social failure. Figure 7 below starkly correlates the U.S. inequality and index of social ills.[47]

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[45] IFRP. (2020). *Many Rural Americans Are Still "Left Behind"* (No. 44-2020; Fast Focus Research/Policy Brief). Institute for Research on Poverty - UW Madison. https://www.irp.wisc.edu/resource/many-rural-americans-are-still-left-behind/
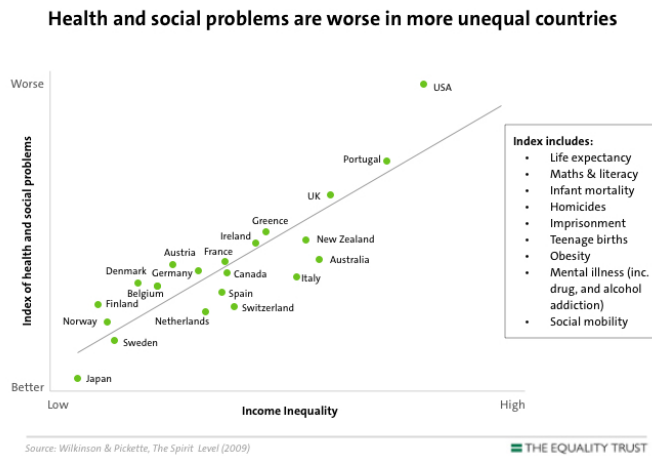
[46] Neckerman, K. M., & Torche, F. (2007). *Inequality: Causes and Consequences* (SSRN Scholarly Paper ID 1077653). Social Science Research Network. https://papers.ssrn.com/abstract=1077653

Stiglitz, J. E. (2013). *The Price of Inequality: How Today's Divided Society Endangers Our Future* (Reprint edition). W. W. Norton & Company.

Wilkinson, R., & Pickett, K. (2011). *The Spirit Level: Why Greater Equality Makes Societies Stronger* (Revised, Updated ed. edition). Bloomsbury Publishing.

[47] Wilkinson, R., & Pickett, K. (2011). *The Spirit Level: Why Greater Equality Makes Societies Stronger* (Revised, Updated ed. edition). Bloomsbury Publishing.

Figure 7: Health and Social Problems Highly Correlated with Inequality in Wealthy Countries [48]

Health and social problems are worse in more unequal countries

Source: Wilkinson & Pickette, The Spirit Level (2009) ≡ THE EQUALITY TRUST

What is striking about the evidence presented in research on inequality is that the negative health and social effects impact all classes in society. For example, while poor children do much better educationally in more equal countries, the wealthiest children in more equal countries also do better than the wealthiest children in unequal countries. Therefore, the maxim that inequality only affects the poor is not true, as inequality will also affect the wellbeing of even the most privileged children in society.

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[48] Wilkinson, R. D., & Pickett, K. (2009). *The spirit level: Why more equal societies almost always do better*. Allen Lane/Penguin Group UK; Bloomsbury Publishing.

Key Finding 2:
Children's books do not reflect the identities and experiences of diverse populations in communities with low reading scores

Children's Books Lack Diversity

Since children's book representation was first studied in 1985 by the University of Wisconsin-Madison's Cooperative Children's Book Center (CCBC), it has been found that racial diversity in children's books is seriously lacking in the U.S.[49] Despite recent reported gains, the progress of reversing those trends is glacially slow. Children's books written by authors of color in 2020 increased by 3 percent, to 26.8 percent, from 2019. Children's books written about racially diverse characters or subjects, however, grew by only 1 percent to 30 percent, according to preliminary data. Meanwhile, books about Latinx characters saw a slight decrease in 2020, from 6.3 percent to 6.2 percent, while the number of books both by and about Native people stayed flat.[50]

Representation of Identities in Children's Books

Despite these year-on-year increases, of all the children's books cataloged by the CCBC in the past 10 years, books about (see Figure 8) and by (see Figure 9) Black, Indigenous, people of color (BIPOC) are an overwhelming minority of all children's books, with 83.4 percent of children's books being about white characters, animals and things and 88 percent of children's books being published by non -BIPOC people. In 2018-2019, 44 percent of children's books were about white characters indicating that the percentage of children's books about animals and things is approximately two and a half times higher than the percentage of children's books about all Black, Latinx, Native American and Asian characters combined. Since children's books remain relevant and in print for many years at a time, looking at these numbers cumulatively gives a better picture of what many bookshelves might look like in libraries, schools, homes, and in stores.

The lack of representation of Indigenous characters in children's books far outweighs any other racial group. In all the books surveyed from 2009-2019 only 1.2 percent featured significant Indigenous characters or content. There's been almost zero growth in the publishing of these books, with a 10-year growth rate average of 0.1 percent and of all the books published in the past three years (2017-2019) about Indigenous characters/topic, only around half (55.4 percent) are by and about Indigenous people. Indigenous peoples and cultures are alive and thriving today yet are often erased from representation, as if they no longer exist.

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[49] *CCBC diversity statistics.* University of Wisconsin-Madison's Cooperative Children's Book Center. (n.d.). https://ccbc.education.wisc.edu/literature-resources/ccbc-diversity-statistics/
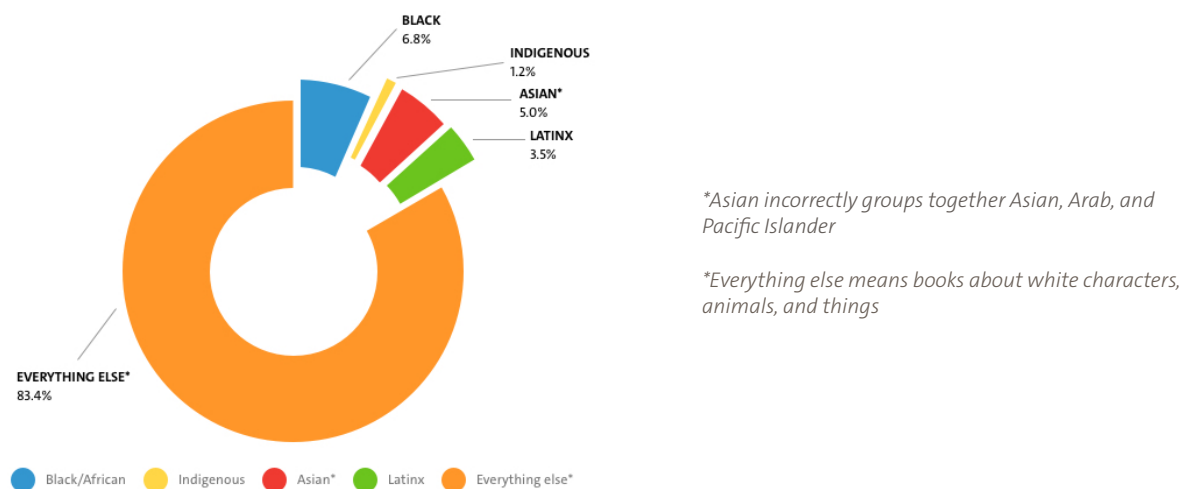
[50] *Books by and/or about black, indigenous and people of color* (All Years). Cooperative Children's Book Center. (n.d.). https://ccbc.education.wisc.edu/literature-resources/ccbc-diversity-statistics/books-by-about-poc-fnn/.

Representation of Black characters in children's books started to see an increase in 2014. Despite that increase, of all the books surveyed from 2014-2019 only 9 percent featured significant Black characters. The annual rate of increase in these books being published only averages 1.5 percent over the past five years and of all the books published in the past three years (2017-2019) about Black characters/topics, only around one third (34.1 percent) are by and about Black people. Stereotypes about Black people are pervasive and deadly, and these stereotypes persist when Black people's voices aren't elevated.

Representation of Latinx characters in children's books started to see a steady increase in 2015. Despite that increase, from 2014-2019 only an average of 4.7 percent of books published annually featured significant Latinx characters while Latinx people make up an estimated 18.5 percent of the U.S. population. The annual rate of increase in these books being published only averages 0.7 percent over the past five years and of all the books published in the past three years (2017-2019) about Latinx characters/topics, only around one third (38.8 percent) are by and about Latinx people.

Representation of Asian, Arab, and Pacific Islander characters in children's books started to see an increase in 2014. Despite that increase, from 2014-2019 only an average of 7 percent of books published annually featured significant Asian, Arab, or Pacific Islander characters. The annual rate of increase in these books being published only averages 1.3 percent over the past five years and of all the books published in the past three years (2017-2019) about Asian characters/topics, less than half (41.6 percent) are by and about Asian people. Asian Americans are an extremely diverse group of people and cultures and these complex nuances are easily overlooked by those without lived experience, which results in perpetuating stereotypes and myths.

Figure 8: All children's books published ABOUT BIPOC (2009-2019) [51]

BLACK
6.8%

INDIGENOUS
1.2%

ASIAN*
5.0%

LATINX
3.5%

EVERYTHING ELSE*
83.4%

Asian incorrectly groups together Asian, Arab, and Pacific Islander

Everything else means books about white characters, animals, and things

● Black/African ● Indigenous ● Asian* ● Latinx ● Everything else*

[51] *CCBC diversity statistics.* University of Wisconsin-Madison's Cooperative Children's Book Center. (n.d.). https://ccbc.education.wisc.edu/literature-resources/ccbc-diversity-statistics/

Figure 9: All children's books published BY BIPOC (2009-2019) [52]
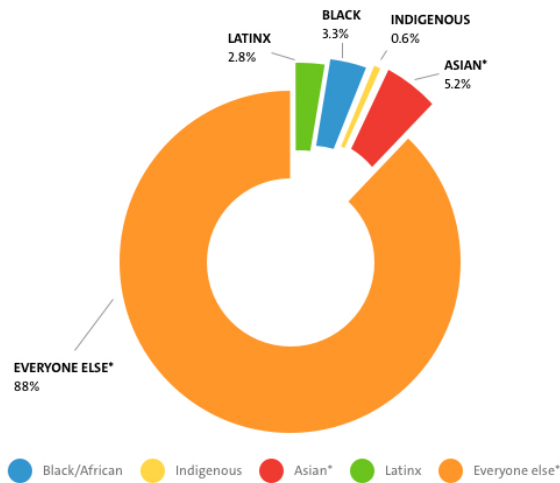
*Asian incorrectly groups together Asian, Arab, and Pacific Islander

*Everyone else may include multiracial people and people whose racial identity the CCBC couldn't verify, along with white people

The lack of diversity in and access to children's books are precisely the reasons why Room to Read has collaborated in this research to better identify where it can best support and apply its global expertise in children's literacy in the U.S. Room to Read is uniquely positioned to increase the availability and variety of diverse children's books featuring and written by people from communities that are underrepresented in the U.S. By applying the organization's 21-year expertise as a global book publisher that operates non-commercially to effect positive social change, Room to Read can be adaptable and responsive, effectively partnering with local authors, illustrators, publishers, and printers to create and contextualize content with high quality results at faster rates than the commercial book publishing industry in the U.S.

52 *CCBC diversity statistics.* University of Wisconsin-Madison's Cooperative Children's Book Center. (n.d.). https://ccbc.education.wisc.edu/literature-resources/ccbc-diversity-statistics/

Underserved Communities & Highest Need Geographies

Particular population segments are clearly underserved by the education system in the U.S. and increasing segregation suggests that particular regions of need are likely to provide opportunities for greater impact in literacy development. This section aims to:

1. Provide an overview of the most underserved areas in the U.S., when it comes Room to Read's areas of focus and opportunities for greatest impact
2. Identify regions for further research & exploration of programmatic interventions by Room to Read

The following criteria guided an assessment of the potential fit for intervention in a geographic area:

Table 1: Criteria for Identifying Geographic Areas of Interest

Socioeconomic status (SES)	Where are the poorest areas, and areas with highest rates of child poverty in particular?
Education attainment and performance	Where are the areas with the lowest educational performance, and where students tend to dropout before finishing high school?
Size of population of interest	Where are areas of large and dense populations of interest?
Opportunity to scale	Which areas provide an opportunity to eventually scale within a larger region, to a larger population, or nationally?
Language communities (other than English)	A particular value-add Room to Read brings is its willingness and experience publishing books in different home languages. Which areas might benefit from home language publishing in a language other than English?
Languages in global collection	Another value-add of Room to Read is its extensive collection of books from other countries it already works in. In which areas in the U.S. might this collection of books be useful?

Approach

- [Educational Opportunity Explorer](#) from Stanford University's Educational Opportunity Project
- Unite for Literacy's [Book Desert Maps](#)
- U.S. Census [QuickFacts](#) tool for comparison by County
- Migration Policy Institute's [Data Hub](#) on Immigrants and Refugees
- University of Wisconsin at Madison's [Institute for Research on Poverty](#)
- Pew Research Center's [Social and Demographic Trends](#)

The main outcome of the data analysis proved the levels of need and performance is organized by regions rather than states or counties as originally assumed. Further trends and patterns were cross-referenced from key policy and research documents from the [Learning Policy Institute](#), the [National Center for Educational Statistics](#), the [National Assessment for Educational Progress](#), the [Education Trust](#), and the [U.S. Department of Education](#).

The following underserved communities were identified:

- Black Americans
- Latinx Americans
- Native Americans
- White Americans
- Refugees & Immigrants
- Children in foster care

Geographic Regions of Focus for Each Underserved Community

Black Americans

Figure 10: Map of U.S. Educational Performance & Poverty: Black Americans [53]

Areas indicated by dark blue have high density, high poverty and low educational performance.
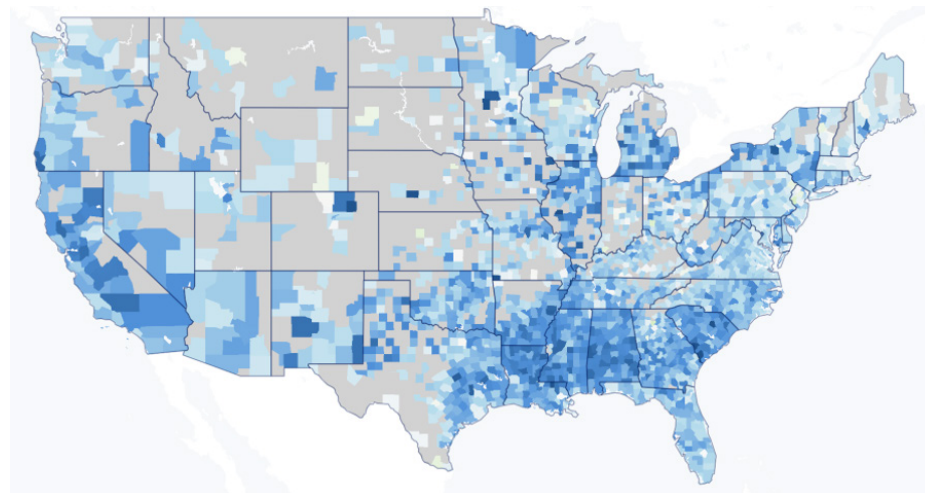
Source: The Educational Opportunity Project at Stanford University (2020)

Approximately 44 million people, or about 13 percent of the U.S. population, identifies as Black or African American.[54] The vast majority of Black Americans live in ten states; 58 percent live in the South, where there is both the greatest density and greatest number population-wise.[55]

Nearly one-fifth (18.8 percent) of Black Americans live in poverty and 31 percent of Black American children live in poverty.[56]

[53] Stanford University. (n.d.). Opportunity Explorer | The Educational Opportunity Project at Stanford University. https://edopportunity.org/explorer/#/map/none/counties/avg/ses/all/3.55/40.28/-112.85/

[54] U.S. Census. (2020). *QuickFacts: United States*. https://www.census.gov/quickfacts/fact/table/US/PST045219

[55] Frey, W. H. (2019, August 29). Six maps that reveal America's expanding racial diversity. *Brookings*. https://www.brookings.edu/research/americas-racial-diversity-in-six-maps/

RHI Hub. (2018). *Map of Black Population, 2018* [Map]. Rural Health Information Hub. https://www.ruralhealthinfo.org/charts/22

[56] Creamer, J. (2020, September 15). Inequalities Persist Despite Decline in Poverty for All Major Race and Hispanic Origin Groups. *The United States Census Bureau*. https://www.census.gov/library/stories/2020/09/poverty-rates-for-blacks-and-hispanics-reached-historic-lows-in-2019.html

Kids Count. (2020). RHI Hub. (2018). Map of Black Population, 2018 [Map]. Rural Health Information Hub. https://www.ruralhealthinfo.org/charts/22 *Children in poverty by race and ethnicity* (Kids Count Data Center). Annie E. Casey Foundation. https://datacenter.kidscount.org/data/tables/44-children-in-poverty-by-race-and-ethnicity

There are ~ approximately 7.6 million Black students in grades K-12, which is 15 percent of all K-12 students in the U.S.[57] Black students are tied with Native Americans for the lowest Grade 4 NAEP reading scores (204)[58] - both groups have a long history of educational, political, and human oppression.

Potential Geographic Regions to Reach Black Americans:

- Deep South Corridor (Louisiana, Mississippi, Alabama, Arkansas)
- Michigan
- South Carolina

Key Considerations:

The Deep South belt seems a clear first choice for serving Black Americans. It is the poorest, the most underserved, has a long history of educational and political oppression, likely shares stories across the region and the population is large and dense.

Latinx Americans

Figure 11: Map of U.S. Educational Performance & Poverty: Latinx Americans [59]

Areas indicated by dark blue have high density, high poverty and low educational performance.
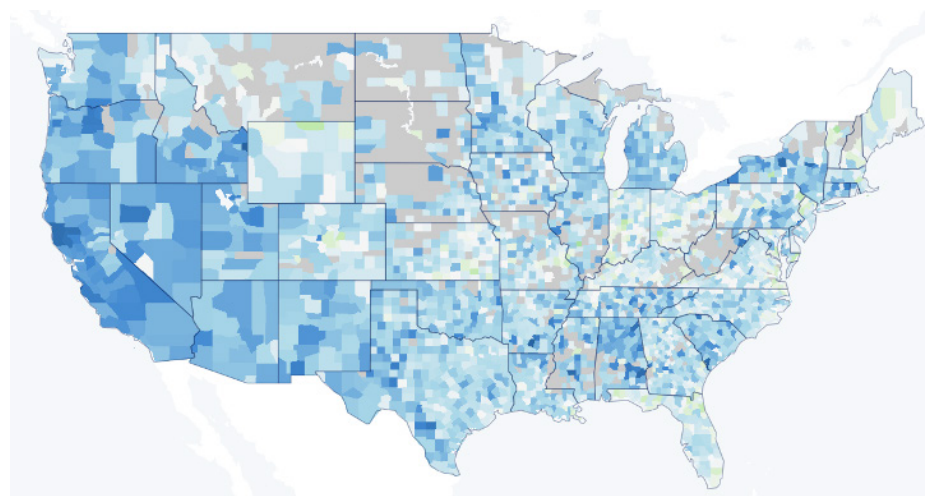
Source: The Educational Opportunity Project at Stanford University (2020)

Approximately 61 million people, or 18.5 percent of U.S. population, identify as being Hispanic or Latinx.[60] Over 75 percent live in one of eight states: the highest number of Latinx live in California, Texas, Florida, New York and Illinois, while the highest density live in New Mexico, Texas, California, Arizona and Nevada.[61]

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[59] Stanford University. (n.d.). Opportunity Explorer | The Educational Opportunity Project at Stanford University. https://edopportunity.org/explorer/#/map/none/counties/avg/ses/all/3.55/40.28/-112.85/

[60] U.S. Census. (2020). *QuickFacts: United States*. https://www.census.gov/quickfacts/fact/table/US/PST045219

[61] Hernández, R. (2018). *Hispanic Map of the United States 2018*. Cervantes Institute at FAS - Harvard University. http://cervantesobservatorio.fas.harvard.edu/sites/default/files/mapa_hispano_23_octubre_eng.pdf

About 15.7 percent of Latinx, or 12.2 million people, live in poverty; and around 23 percent of Latinx children live in poverty.[62]

Over one quarter of K-12 students, 27 percent, or around 13.8 million students are of Hispanic origin.[63] Nearly half - 45 percent - of Latinx students score below basic on the NAEP exam.

Potential Geographic Regions to Reach Latinx Americans:

- Central California
- Southwest Border (Arizona, New Mexico)
- Texas

Key Considerations:

The Southwest has the lowest total number, but highest density of population in some of the counties. In this region there is potentially a chance to combine outreach with organizations to reach both Native Americans and Latinx.

Native Americans

According to the U.S. Census, as of 2019 there were 5.2 million people who identified as American Indian or Alaska Native (AI/AN)[64] - this is about 1.7 percent of the total U.S. population.[65]

The vast majority of Native Americans live in 10 states, and only about 25 percent live on tribal lands; however, while approximately 5 percent live off of tribal lands, the highest density areas are in counties surrounding tribal nations (reservations)[66]. Over a quarter of Native Americans (25.4 percent) or 1.3 million people live in poverty. This is the highest percentage of any racial group living in poverty.[67]

[62] Creamer, J. (2020, September 15). Inequalities Persist Despite Decline in Poverty for All Major Race and Hispanic Origin Groups. *The United States Census Bureau*. https://www.census.gov/library/stories/2020/09/poverty-rates-for-blacks-and-hispanics-reached-historic-lows-in-2019.html

Kids Count. (2020). *Children in poverty by race and ethnicity* (Kids Count Data Center). Annie E. Casey Foundation. https://datacenter.kidscount.org/data/tables/44-children-in-poverty-by-race-and-ethnicity

[63] NCES. (2020). *Back to School Statistics (Fast Facts)*. National Center for Education Statistics. https://nces.ed.gov/fastfacts/display.asp?id=372#PK12_enrollment

[64] Although referred to as American Indian or Alaska Native (AI/NA) by the U.S. Census, this group is referenced as Native American throughout this report

US Census Bureau. (2020). *My Tribal Area*. U.S. Census Bureau: The American Community Survey. https://www.census.gov/tribal/?st=35&aianihh=2430

[65] NCAI. (2020). *Demographics*. National Congress of American Indians. https://www.ncai.org/about-tribes/demographics

US Census Bureau. (2020). *My Tribal Area*. U.S. Census Bureau: The American Community Survey. https://www.census.gov/tribal/?st=35&aianihh=2430

[66] CDC. (2020). *Tribal Population | CDC*. Center for Disease Control. https://www.cdc.gov/tribal/tribes-organizations-health/tribes/state-population.html

NCAI. (2014). *Regional Profiles of Tribal Nations*. National Congress of American Indians. https://www.ncai.org/about-tribes/regional-profiles

[67] Muhammad, D. A., Tec, R., & Ramirez, K. (2019). *Racial Wealth Snapshot: American Indians/ Native Americans » NCRC*. National Community Reinvestment Coalition. https://ncrc.org/racial-wealth-snapshot-american-indians-native-americans/

There are around half a million (approximately 500,000) Native American students in public schools, around 1 percent of the total school population.[68] As a group, Native American students tend to be underserved educationally and are tied with Black Americans for lowest average Grade 4 NAEP reading score (204) while white students scored on average 230 and Asian students scored 239.[69]

The majority (70 percent) of Native Americans speak only English at home; however, there are a few language groups with considerable native language speakers remaining. The Navajo is the largest group with around 170,000 speakers of the Navajo Language called Diné, which has around 7,600 people who speak only Diné. The next two largest language groups that speak a native language at home are Yupik (1,100 speakers) and Sioux (30,000 total in U.S. and Canada).[70]

Figure 12: Map of U.S. Educational Performance & Poverty: All students[71]

High-density Native American regions such as Alaska display higher levels of poverty and low educational performance, as shown in dark blue.
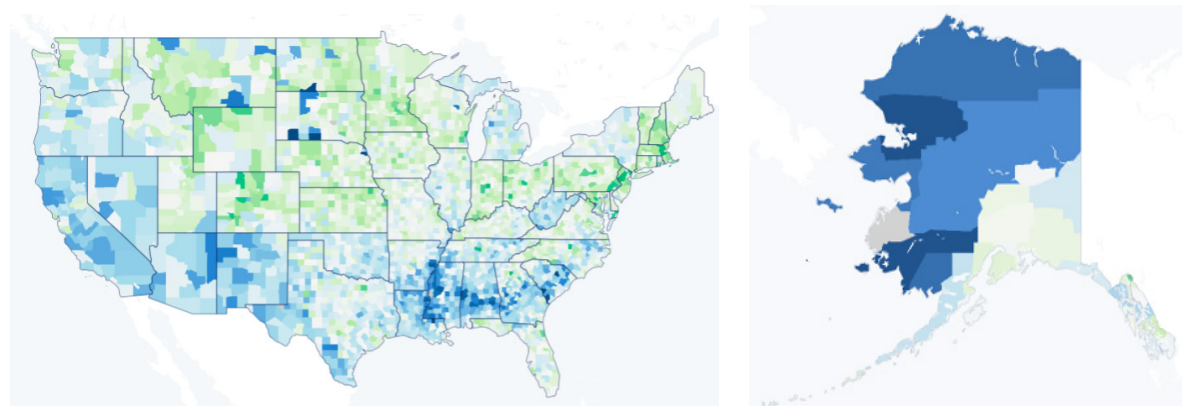
[68] CNAY. (2016, July). Fast Facts. *Center for Native American Youth.* https://www.cnay.org/resource-hub/fast-facts/

NCES. (2020). *Back to School Statistics (Fast Facts).* National Center for Education Statistics. https://nces.ed.gov/fastfacts/display.asp?id=372#PK12_enrollment

[69] *The Nation's Report Card* | NAEP. (n.d.). National Center for Education Statistics. Retrieved December 20, 2020, from https://nces.ed.gov/nationsreportcard/

[70] Lee, T. H. (2014, June 30). 7 Most Popular Native American Languages in U.S. *Indian Country Today.* https://indiancountrytoday.com/archive/7-most-popular-native-american-languages-in-u-s-F8_vHNtMYEGWyW2Pm001RA

Sioux language. (2020). In *Wikipedia.* https://en.wikipedia.org/w/index.php?title=Sioux_language&oldid=988238563

[71] Stanford University. (n.d.). Opportunity Explorer | The Educational Opportunity Project at Stanford University. https://edopportunity.org/explorer/#/map/none/counties/avg/ses/all/3.55/40.28/-112.85/

Figure 13: Map of Native American population. [72]
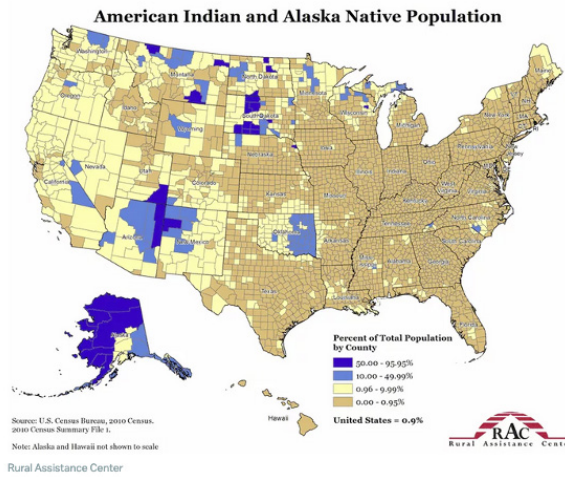
Potential Geographic Regions to Reach Native Americans:

- Great Plains (North Dakota, South Dakota, Nebraska)
- Alaska
- Southwest and West Region (Nevada, Utah, Arizona, Colorado, New Mexico)
- Eastern Oklahoma

Key Considerations:

- Southwest seems a clear first choice for further exploration because of the size and density of population, and because the Navajo are actively revitalizing their language.
- The Dakotas are the poorest and next most underserved educationally. While still a smaller number of people than Oklahoma or the Southwest, the Dakotas present the opportunity to scale beyond into Montana, Nebraska, Minnesota and Wisconsin. The Sioux language is the third most widely spoken.
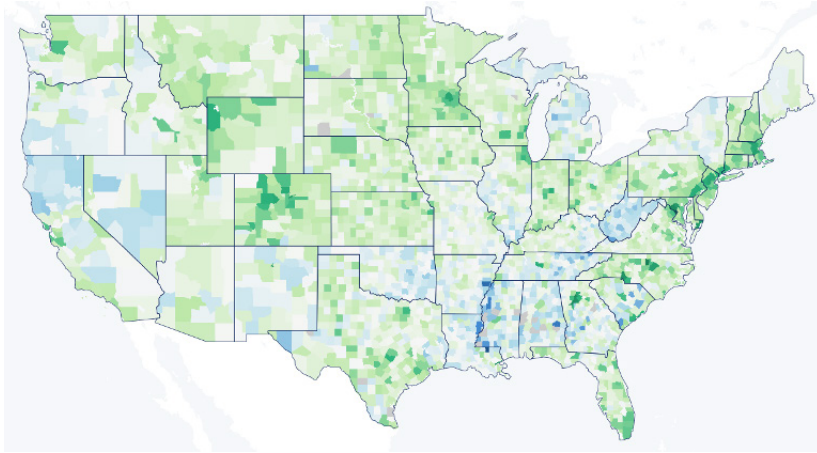
White Americans

About 37 million white Americans live in rural areas in the U.S and 13.5 percent are poor. Given that few nonprofits serve rural populations and government services can be difficult to access,[73] white Americans living in poverty in rural areas were identified as a population of interest for Room to Read programs. Given the size of the white American population living in poverty in rural areas, access to high-quality and diverse children's books can add significant value to learning outcomes.

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[72] Source: US Census Bureau, 2010 Census. Rural Assistance Center.

[73] Kneebone, E. (2017, February 15). The changing geography of US poverty. *Brookings*. https://www.brookings.edu/testimonies/the-changing-geography-of-us-poverty/

Figure 14: Map of U.S. Educational Performance & Poverty: White Americans[74]

Areas indicated by dark blue have high density, high poverty and low educational performance.

Potential Geographic Regions to Reach white Americans living in poverty in rural areas:

- Central Appalachia (West Virginia, Kentucky, Tennessee)
- Deep South (Louisiana, Mississippi, Alabama, Arkansas)
- Northern Michigan

Key Considerations:

- Central Appalachia seems like the clear first choice for reaching the population of white Americans living in poverty in rural areas. It has high density and the largest numbers, and likely shares stories across the great Appalachia region, therefore has potential for scale.
- The Deep South offers an opportunity to potentially combine with efforts to reach Black Americans.

Refugees & Immigrants

The United States is home to more immigrants than any other country in the world — as of 2020, 13.7 percent of the U.S. population were immigrants and more than 30,000 refugees had settled in the U.S. as of 2019.[75] Mexican immigrants are 25 percent of all immigrants living in the U.S. followed by immigrants from China (6 percent), India (6 percent), the Philippines (4 percent) and El Salvador (3 percent).[76]

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[74] Stanford University. (n.d.). Opportunity Explorer | The Educational Opportunity Project at Stanford University. https://edopportunity.org/explorer/#/map/none/counties/avg/ses/all/3.55/40.28/-112.85/

[75] Budiman, A. (2020). *Key findings about U.S. immigrants* (FactTank: News in the Numbers). Pew Research Center. https://www.pewresearch.org/fact-tank/2020/08/20/key-findings-about-u-s-immigrants/

[76] Batalova, J. Z., Jeanne Batalova Jie Zong and Jeanne. (2018, October 5). Mexican Immigrants in the United States in 2017. *Migrationpolicy*.Org. https://www.migrationpolicy.org/article/mexican-immigrants-united-states-2017

Budiman, A. (2020). *Key findings about U.S. immigrants* (FactTank: News in the Numbers). Pew Research Center. https://www.pewresearch.org/fact-tank/2020/08/20/key-findings-about-u-s-immigrants/

Countries of Birth for U.S. Immigrants, 1960-Present. (2013, November 5). Migrationpolicy.Org. https://www.migrationpolicy.org/programs/data-hub/charts/immigrants-countries-birth-over-time

Potential Immigrant Communities

Table 2: Five Largest Immigrant Communities that also Speak a Language in Room to Read's Global Book Collection

Region of Origin	U.S. Region	Population
Mexico	CA (35%); TX (26%); AZ (5%) Los Angeles (Mexicans are 13% of LA); Chicago, Dallas, Houston, Phoenix	11 m
India	NY, IL, CA, DC NYC, Chicago, San Jose, SF, LA	2.7 m
Philippines	CA, NY, HI, IL Los Angeles, San Francisco, NYC, San Diego, Chicago, Honolulu	2 m
El Salvador	CA, TX, NY Los Angeles, DC, NYC, Houston	1.4 m
Vietnam	CA, TX Los Angeles, San Jose, Houston, Dallas, SF, DC, Seattle, San Diego	1.34 m

Key considerations:

- Refugees, while likely very much in need, are relatively small in population size, spread across the U.S. and diverse in background. The refugees who have recently entered the country do not overlap with Room to Read's global book collection languages.
- The largest group of immigrants in numbers by far is from Mexico. And, where they live overlaps, unsurprisingly, with Latinx Americans. Likely, Room to Read could serve both Latinx Americans and immigrants via the same partners.
- Immigrants from India, Vietnam and the Philippines may speak languages in the Room to Read global book collection but are on average better educated and less poor than Latinx immigrants. Given our exploration into Collier County, we may find an opportunity to work with the Haitian Creole-French speaking community.

Children in Foster Care

Children in foster care were identified by the network of experts and practitioners as one of the most underserved and vulnerable groups of children who lack access to books and literacy services.

In September of 2018, there were 437,283 children in foster care across the U.S. Nearly one-third of these children (32 percent) were in homes of relatives, and nearly half (46 percent) were in foster family homes headed by non-relatives. In 2018, 49 percent of the children who left foster care reunited with their parents or primary caretakers upon discharge, and around half of the children (43 percent) were in foster care for less than a year.[77] The largest number of children in foster care homes, by far, are in California, Texas, and Florida.[78]

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[77] CWIG. (2020). *Foster Care Statistics 2018* (Child Welfare Information Gateway: Numbers & Trends, p. 12). Children's Bureau: Administration for Children & Families.

[78] Jacques, J. (2018, November 13). States with the most children in foster care. *Stacker*. https://stacker.com/stories/2034/states-most-children-foster-care

Table 3: Four States with the Largest Population of Children in Foster Care

State	Population Size	% Under Age 10	# Under Age 10	Notes
CA	52337	60%	31,402	Native Americans and Black children are overrepresented in the foster care system in California; but largest percentages within the system are Latinx (52%) and White (26%), then Asian (11%) and Black (5%). In 2017-18, only 23 percent of students in foster care met or exceeded the standards on the Smarter Balanced tests for English language arts administered to students in certain grades each spring, compared to 50 percent of all students statewide.
TX	32960	69%	22,742	Latinx (38.9%); White (30.8%); Black (23.5%).
FL	24404	74%	18,059	Latinx (30%); Black (20%); White (43%)
NY	16385	71%	11,633	White (32%); Black (55%); Latinx (10%) Percentages under age 10 are estimates because they divide differently in NY - into waiting to be adopted and adopted

Key Considerations

Children in foster care are in high need of additional support for literacy interventions and access to books; however, the total numbers are lower compared to other underserved communities. The fact that they are highly concentrated in metro areas and diverse in race and ethnicity, mean that programs would be more complex and contextualized in order to achieve positive change. The challenges of navigating bureaucracies in different states to get books into the hands of children who need them most would require strong partnerships.

Conclusion

Recommended Regions of Focus

A number of communities exist throughout the United States where Room to Read's support could positively impact the lives of children, especially where book deserts are high. If a need exists to maximize positive results with limited resources, in considering all of the above insights, learnings and the selection criteria, **Central California, the Great Plains, the Southwest, the Deep South, and Appalachia regions** are recommended as potential regions of focus for Room to Read's support, in terms of the high concentration of underserved communities or children that belong to underserved groups. Children in foster care could be considered either within these regions through local partners or through national partnerships. Table 4 below gives a comparison of key data points for each region.

Table 4: Five Recommended Areas of Focus with Key Data

Region	Underserved Communities	Population Size	Poverty***	Education	Book Desert*****
Central California	Latinx - Americans & Immigrants	~3m in Central (15m in all CA)	-1.33m	-2.14	5%
Great Plains* (ND, SD, NE)	Native American	~150k	-3.55	-3.44	6%
Southwest (AZ, NM)	Native American	~750k	-2.16	-1.94	9%
	Latinx - Americans & Immigrants	~2.2m	-2.04	-1.95	12%
Deep South	Black	~3m	-4.23	-3.35	9%
	White Americans	~3m**	-.23	-2.91	
Appalachia	White Americans	1.5m	-2.16	-1.66	22%

Alaska was high on the list for Native American investment, but the Dakotas offers the possibility of scaling into MN, WI, or potentially NE, OK. Alaska is also much more difficult physically, and the Alaskan Native traditions are more different than the mainland Native American tribes, meaning the books developed in mainland U.S. might be able to be used across regions more easily.

**3m is a very rough estimate taking into account total white and approximate rural population. 1.5m is the estimate of white people living in poverty in Central Appalachia. There are 7 million total white rural people in the area.

***Poverty & Education were taken from the Educational Opportunity Project Calculations. SES or "POVERTY" SCORES

The composite SES measure (for Poverty) is standardized so that a value of 0 represents the SES of the average school district in the U.S. Then, areas are assessed according to the standard deviation. Approximately two-thirds of districts have SES values between -1 and +1, and approximately 95% have SES values between -2 and +2. We use six community characteristics reported in the surveys from 2007 through 2016 to construct a composite measure of SES in each community:

• Median income
• Percentage of adults age 25 and older with a bachelor's degree or higher
• Poverty rate among households with children age 5–17
• Percentage of households receiving benefits from the Supplemental Nutrition Assistance Program (SNAP)
• Percentage of households headed by single mothers
• Employment rate for adults age 25–64.

TEST SCORES (for Education)

The data are based on the standardized accountability tests in math and English Language Arts (ELA) administered annually by each state to all public-school students in grades 3–8 from 2008–09 through 2015–16. In these years, 3rd through 8th graders in U.S. public schools took roughly 350 million standardized math and ELA tests. Their scores—provided to us in aggregated form by the U.S. Department of Education—are the basis of the data reported here. We combine information on the test scores in each school, school district, or county with information from the National Assessment of Educational Progress (NAEP; see https://nces.ed.gov/nationsreportcard/about/) to compare scores from state tests on a common national scale (see see the Methods page). Once the test scores are placed on a common scale across states, grades, and years, we have measures of the average test scores in up to 96 grade-year-subject cells for each school, district, or county. The scores are adjusted so that a value of 3 corresponds to the average achievement of 3rd graders nationally, a value of 4 corresponds to the average achievement of 4th graders nationally, and so on. Average test score: To compute the average test score, we compare students in each grade, year, and subject with the national average and then combine them. For example, -4.23 means that the county's average test scores are 4.23 grade levels below the national average, -3.35 is 3.35 grade levels below average.

*****Book Desert percentages are based on % of households that have 100 books or more.*

Room to Read should now consider these recommendations to develop its geographic strategy in the U.S, which will be informed by a combination of study findings and other factors including operational considerations, partner identification and resources.