



**CENTER FOR THE ECONOMICS
OF HUMAN DEVELOPMENT**
The University of Chicago

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FROM THE DIRECTOR

There are many opportunities across an individual's life to create, shape, and hone the skills necessary to achieve one's full potential. However, for those who face disadvantages, what can be done to reduce inequality and promote opportunity and access to these skills? The Center for the Economics of Human Development is driven by finding answers to these important research and policy questions, including understanding the critical periods in the life cycle where interventions can have a meaningful impact on the creation and refinement of a diversity of skills necessary for human flourishing.

The Center integrates cutting-edge research across disciplines, theories, and methods. We serve as a catalyst for collaboration among economists, biologists, psychologists, neuroscientists, and sociologists interested in methodological innovation. These collaborations also allow us to recognize the multiplicity of skills required to be successful in life, including cognitive skills, social skills, and health. Our researchers go out into the world and observe multifaceted problems and the social and economic contexts in which they are embedded then develop, estimate, and apply a unified framework of skill formation to guide policy and evaluate the effectiveness of social programs.

We understand that investing in human capital is vital to the health of communities and our economy. Though there is likely no perfect method to advance opportunity for all, we do know that we can create and shape human capabilities, giving all people the opportunity for advancement.



James J. Heckman
Director



ABOUT THE CENTER

The Center for the Economics of Human Development was founded in 2014 by Nobel Laureate James J. Heckman at the University of Chicago to foster a comprehensive research program that identifies and explores the circumstances under which people develop the skills necessary to thrive in the current economy and achieve their fullest potential. The Center's research portfolio is composed of an array of diverse, interrelated projects and initiatives which promote a thorough empirical understanding of human flourishing. Unifying this research is the idea that capacities and skills gained and learned in early childhood transform many aspects of the life course at all stages, ranging from employment and earning prospects to overall health. The Center not only brings together teams of the best researchers from throughout the world to explore and understand the depth of these complex topics, but also aids in the successful dissemination of their findings. In doing so, the Center's researchers and staff equip policymakers and practitioners with the information necessary to promote equality of opportunity for even the most disadvantaged and vulnerable.

The Center pursues these aims through several research teams focusing on areas such as early childhood and adolescent development, inequality and intergenerational mobility, employment, health, and crime. Additionally, the Center runs multiple initiatives that serve two purposes. The first is to expand its knowledge base and incorporate important perspectives into its research. Initiatives, such as the Asian Family in Transition, forge lasting connections with researchers across the world tackling similar topics in different economic contexts. The second purpose is to ensure that the research helps influence responsible policymaking and practices. For instance, the Heckman Equation works specifically to increase public understanding and legislative use of the Center's research.

The Center houses its researchers and staff, which include graduate and undergraduate students, visiting scholars, and doctoral and post-doctoral fellows, in two houses adjoined to the University of Chicago's Saieh Hall for Economics. It is fitting that, in these two buildings' past lives, they housed the University of Chicago's Lab School's Nursery School, and prior to that, the Department of Home Economics and Household Administration, which researched child care and development.

The Center's two houses on Woodlawn Avenue are again bustling with people devoted to understanding the capacity of an individual to reach his or her potential for health and success. The Center is grateful for the commitment of its researchers and funders who have made its current success possible and enabled the Center to grow and have a greater positive impact on research and policy.



LEADERSHIP

James J. Heckman

is the Director of the Center for the Economics of Human Development. He has devoted his career to understanding the origins of major societal and economic problems related to inequality, social mobility, discrimination, and skill formation. Through this research he also studies and recommends evidence-based policies and investments that promote opportunity and human flourishing. In 2000, Heckman won the Nobel Prize in Economics for his work on the microeconometrics of diversity and heterogeneity and for establishing a sound causal basis for public policy evaluation. While his work is rooted in economics, he actively collaborates across disciplines with recent research drawing on economics, psychology, genetics, epidemiology, and neuroscience to examine the origins of inequality, the determinants of social mobility, and links among stages of the life cycle.

Heckman is as prolific as his work is influential. He has published over three-hundred articles and nine books, and his work is widely cited by academics and policymakers alike.

Alison Baulos is the

Executive Director of the Center for the Economics of Human Development.

She works with Professor Heckman to launch and optimize large-scale research initiatives related to human capital development. She oversees the Pritzker Consortium on Early Childhood Development, which brings together experts to identify when and how early childhood interventions are most effective, and the Heckman Equation, which disseminates research to policymakers and business communities and creates tools to support economic investment in early childhood education. She is also the Executive Director of the Human Capital and Economic Opportunity Global Working Group, which fosters interdisciplinary human capital development research across the globe. Baulos was also the Associate Director of the Economics Research Center from 2005–2014. At the University of Chicago Hospitals she spent three years as a Research Professional, and two years in the Vice President for Strategic Planning's office. Baulos has earned three degrees from the University of Chicago, including a B.A. in Psychology, an M.A. in Social Service Administration, and an M.B.A..

RESEARCH

Research at the Center for the Economics of Human Development is guided by questions about the factors that contribute to inequality, disparate life outcomes, and interventions that can help alleviate such social problems. The Center's research team is composed of more than two-dozen researchers working closely with Professor Heckman. They conduct, analyze, debate, and revise rigorous research in teams. The Center's research contributes to the understanding of the scope of social problems and the economic context in which they are embedded. This ensures that the work produced and published not only meets the highest academic standards of scholarship, but can bring about positive policy changes that benefit those who need it most.

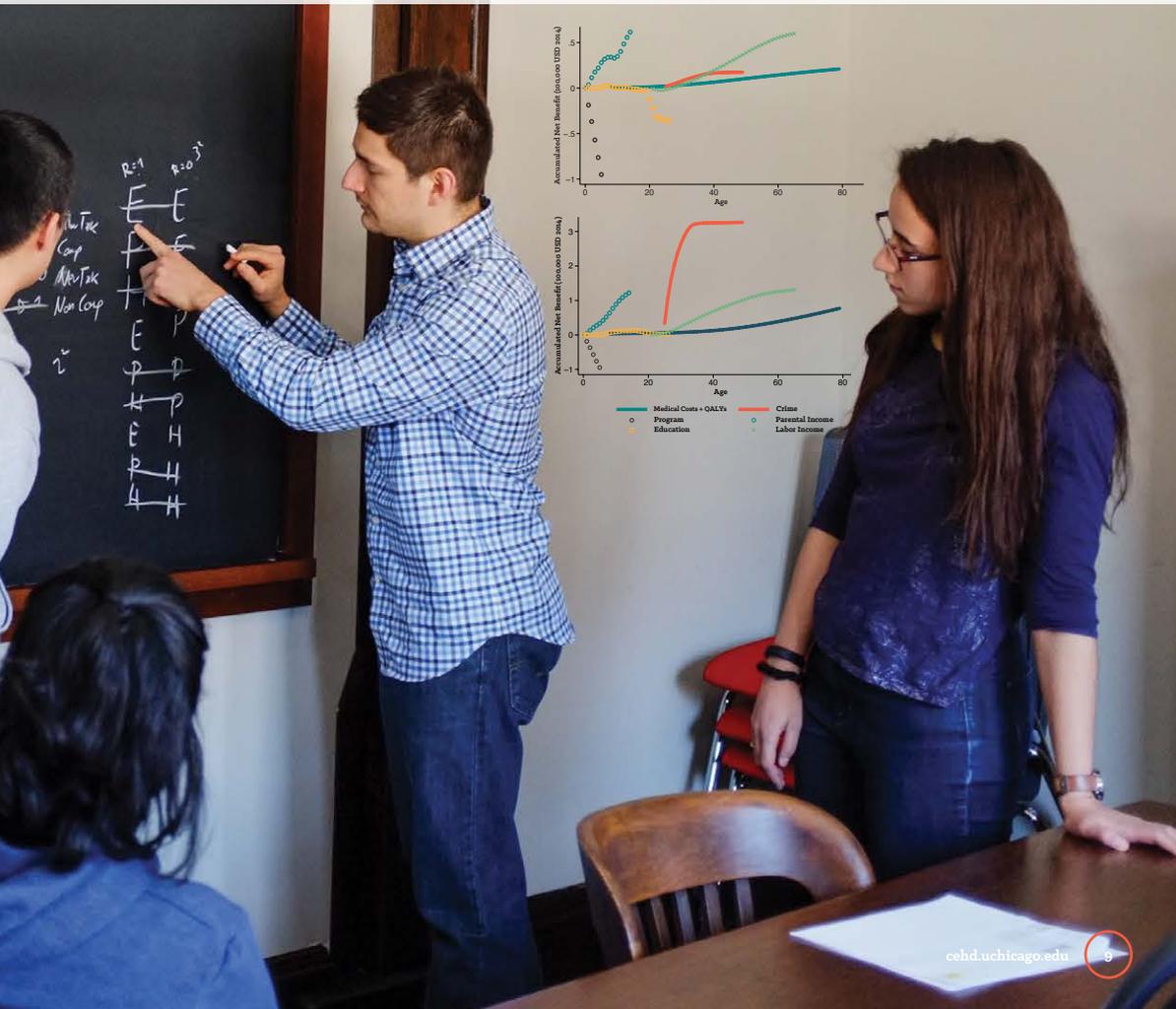
To successfully tackle these difficult problems, the Center's researchers collaborate with biologists, psychologists, neuroscientists, and sociologists. This collaboration leads to an enrichment of traditional economic approaches to human development by augmenting our

understanding of the skills necessary to thrive in our current economy. Through this enriched understanding, the Center's researchers are in a unique position to develop, estimate, and apply a unified framework of skill formation which can accurately evaluate the effectiveness of social programs and serve as an insightful guide for creating public policy.

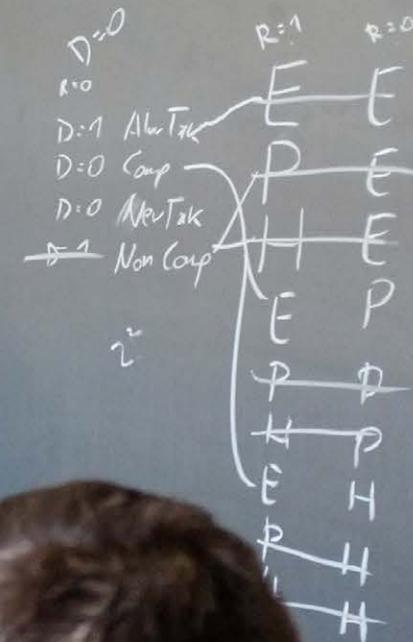
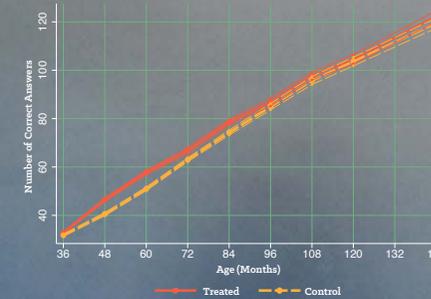
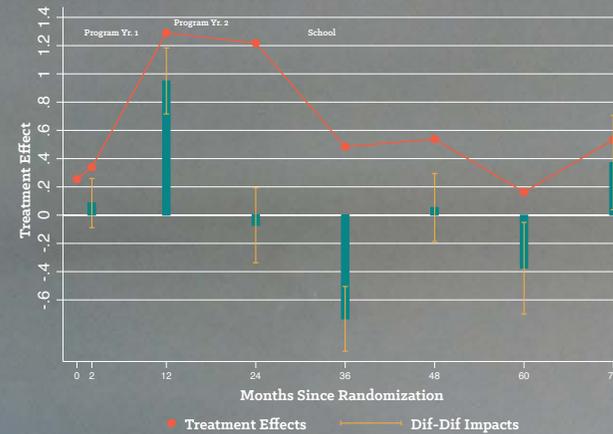
One such product of this thoughtful questioning, testing, and analysis is the knowledge that high-quality early childhood programs are effective at addressing inequality and promoting opportunity throughout the life course. The work of the Center's researchers bridges the gap between academia and practice to inform policymakers and encourage implementation of early childhood programs that can have impacts on academic success, health, and social mobility. The Center's work is both rigorous enough to be respected by academics, and relatable enough that policymakers and practitioners can understand it and advocate for early childhood programs that serve the most vulnerable populations and produce lasting benefits to society as a whole.

Research
on the **CAROLINA**
ABECEDARIAN PROJECT and
the **PERRY PRESCHOOL PROJECT**

studies the most well known early education randomized control trials with longitudinal follow-up. Studied through to age 35 and age 50, respectively, this research allows for new analysis of the impacts that high-quality interventions during early childhood can have on educational, economic and health outcomes in adulthood. The Center's researchers seek to further add to the literature on early education by analyzing determinants and explanations of the widely documented fadeout in early-life cognitive outcomes. Many critics of early childhood programs point to the small samples of these programs; the Center has developed cutting-edge econometric methods to address the particular difficulties of evaluating each of these programs. In collaboration with leading health economists and epidemiologists, the Center is conducting a thorough cost-benefit analysis of these programs. This work is producing solid evidence for early childhood education investments and program design and will guide equitable and efficient public policies.



An often cited critique of early childhood programs is that the cognitive effects fadeout by elementary school. In other words, strong initial gains diminish or disappear a few years after children have left the program. To understand this phenomenon, in the **FADEOUT PROJECT**, researchers at the Center use never before studied data on individual IQ items in the Carolina Abecedarian Project and the Early Training Project studies. Using a model of skill formation that considers previous IQ and formal education experiences, researchers identify the period-by-period impacts of the programs on IQ. They find that there are fast gains on test scores at preschool entry for those who attended the early education programs, but there are little additional gains after that initial boost; almost all fadeout is concentrated in the very first year of school. Therefore, this evidence suggests that lower cognitive test scores do not necessarily fadeout, but rather that this decrease is explained by diminishing returns of education—in other words those who didn't attend the early education programs benefit more from the first year of school. Some describe this as “catching up” rather than effects fading out.



To understand how high-quality early education programs achieve positive outcomes, it is critical to examine how the programs are shaped and what happens in the classroom. Guided by this premise, the **PROGRAM COMPARISON PROJECT** takes an innovative approach to researching successful, iconic early childhood programs—such as the Perry Preschool Project, Carolina Abecedarian Project, and Project CARE. Incorporating historical, educational, and psychological perspectives, Center researchers collaborate with other researchers, curriculum designers, and classroom teachers who worked on the original studies to compare each program at a detailed level. They document original guiding theoretical frameworks, teaching methods, and learning activities by year to analyze how curricula were adapted throughout the duration of each intervention as researchers learned and observed outcomes. By comparing implementation of the original interventions as they evolved, the Center will contribute to the understanding of best practices in education and urge practitioners and policymakers to take a holistic approach to investments in early childhood programs.

SUMMARY OF MAIN EFFECTS ON OUTCOMES

Program	Effects on Outcomes							Return/Benefits	
	IQ	School	Character	Education	Health	Crime	Earnings	Return	Benefit/Cost
NFP	●	●	●	●	●	●	●	2.9	TBD
ABC	●	●	●	●	●	●	●		
IHDP	●	●	●	●	●	●	●		
Perry	●	●	●	●	●	●	●	7-10	7.1-12.2

COMPONENTS OF TREATMENT DELIVERY

Program	Home	Health	Parental	Center	Group
Perry	■	□	■	■	■
ABC	□	■	□	■	■
CARE	■	■	■	■	■
IHDP	■	■	■	■	■
NFP	■	■	■	□	□

INITIATIVES

The Center for the Economics of Human Development encompasses multiple initiatives which expand and supplement its research breadth and reach. The two types of initiatives serve two different, but interrelated roles.

The first set of initiatives expands the Center's knowledge base and incorporates important perspectives into its research. These initiatives accomplish this by bringing together top scholars from around the world and organizing events and publications which spark new debates and avenues of research that contribute to a better understanding of inequality, disparate life outcomes, and other related social problems. Such initiatives include the Asian Family in Transition, the Human Capital and Economic Opportunity Global Working Group, the Research Network on the Determinants of Life Course Capabilities and Outcomes, and the Pritzker Consortium on Early Childhood Development.

The second type of initiative ensures that the Center's research is disseminated beyond academic audiences and makes a direct impact on responsible policymaking and practices. The Center's research not only aims to make contributions to the theoretical realm of academia, but also to serve as a resource for resolving real and pressing social problems through sound policy and practice. To this end, the Heckman Equation helps to increase public understanding and legislative use of the Center's research by serving as a resource catered to policymakers as well as a liaison between the Center and legislators. In doing so, the Heckman Equation ensures that policymakers and practitioners are equipped with the most updated and relevant information crucial to the promotion of equality of opportunity.

Prior to 2016, the Center's ongoing initiatives have hosted over seventy events, bringing together diverse groups of scholars from various disciplines ranging from economists and social scientists to geneticists and psychologists exploring novel research avenues and establishing lasting interdisciplinary connections.

THE ASIAN FAMILY IN TRANSITION initiative seeks to study the economics of demographic changes in China, Japan, Korea, and Southeast Asia. Its aim is to broaden research on topics related to the family and its contribution to inequality and social change. It addresses questions related to family structures, migration, and other changes with deep implications for society and the economy. This initiative was started through seed funding provided by the Becker Friedman Institute for Research in Economics and is led by Professor James Heckman and Professor Junsen Zhang, from the Chinese University of Hong Kong. It accomplishes its goals through a series of conferences which alternate locations between Asia and the United States and through postdoctoral fellowships.

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**THE
HUMAN CAPITAL
AND ECONOMIC OPPORTUNITY
GLOBAL WORKING GROUP** is a

collaboration of over four hundred researchers, educators, and policymakers focused on human capital development and its impact on opportunity inequality. The group's unique approach enables collaboration among scholars with varying disciplines, approaches, perspectives, and fields, which leads to the integration of biological, sociological, and psychological perspectives into traditionally economic questions. The group comprises six networks of researchers, policymakers, and practitioners to examine issues of inequality from varying and related perspectives: Early Childhood Interventions; Family Inequality; Health Inequality; Identity and Personality; Inequality: Measurement, Interpretation, and Policy; and Markets. This results in innovative approaches to understanding inequality and human capital development research. The initiative accomplishes its goals by hosting conferences that expand knowledge of inequality, running summer schools to prepare the next generation of scholars, and maintaining www.hceconomics.org as a resource for inequality research.



**THE RESEARCH NETWORK
ON THE DETERMINANTS OF LIFE
COURSE CAPABILITIES AND OUTCOMES**

initiative brings together scholars in economics, genetics, psychology, sociology, and statistics to produce new knowledge about the determinants, development, and measurement of capabilities across the life cycle, as well as life course inequalities. Its goal is to develop a comprehensive framework for analyzing inequality in capabilities over the life course with a focus on midlife to late life outcomes. This initiative convenes conferences that bring together interdisciplinary groups of scholars to present alternative perspectives on these research topics with a goal of identifying and charting areas of commonalities and differences. Additionally, it organizes and hosts workshops that integrate graduate students and new professionals, therefore, serving as a mechanism for cross-disciplinary training and creating a forum for new measurement and development approaches to be assessed and disseminated. The network also supports a pilot grant program, which facilitates cross-disciplinary projects and training of emerging scholars.

Sponsored by the
National Institute on
Aging

THE HECKMAN EQUATION initiative is a strategic communications initiative that disseminates and amplifies the Center's research in early childhood development. It was launched and is supported by the Pritzker Children's Initiative. This initiative is guided by the need to present evidence rooted in rigorous research that public and private investments toward early childhood programs will boost economic opportunity and reduce inequality. The initiative offers online resources and robust social media efforts that allow policymakers, advocates, and practitioners to communicate the social and economic benefits of investing in the early and equal development of human potential. Through these efforts, this initiative increases public understanding and promotes the legislative use of the Center's research, which in turn ensures that policymakers and practitioners are equipped with the latest information necessary to promote equality of opportunity.

IMPACT

The Center for the Economics of Human Development's work was featured nearly three-hundred times in seventy-five major media outlets in 2015. These publications, including *The New York Times* and *The Economist*, are major voices in the national conversation on preschool funding, early childhood interventions, and income inequality. Such widespread coverage of the Center's work leads to broader engagement with a diverse audience of educators, policymakers, and journalists and fosters greater public understanding of the importance of early childhood investment. The Center's research on the impact of early childhood investments and later-life outcomes has influenced policymakers and advocates to make important program decisions and identify areas of investment based on rigorous scientific research. The Center's article "Early Childhood Investments Substantially Boost Adult Health" in *Science* (March 2014) was the first publication to explicitly link adult health outcomes to early childhood interventions and showed the potential of early-life interventions for preventing disease and promoting health over the life course. It received significant media coverage after its publication from

sources such as *The New York Times*, *Huffington Post*, *Education Week*, and *Science News*, as well as being mentioned in remarks by former U.S. Secretary of Education Arne Duncan.

The Center's research has served an important role in shaping public policy. Center researchers were requested by the Secretary of Education's staff to advise on the research behind the return on investment in high-quality early education programs. Professor Heckman spoke at the 2014 White House Early Childhood Education Summit on the importance of investing in early childhood stimulation and nurturing disadvantaged children which coincided with an announcement of \$1 billion in funding for preschool, motivated in part by the Center's research. He also spoke at UNESCO's 2015 World Education Forum in Incheon, South Korea on the topic of "setting" the stage for the global future of education. Attendees included the UN Secretary-General, UNESCO Director-General, UNICEF Executive Director, and the President of the World Bank, among other high-level attendees.

The Center's research on the impact of investments in early education received significant media coverage from sources such as *The New York Times*, *Huffington Post*, *Education Week*, and *Science News*, as well as being cited in President Barack Obama's 2013 State of the Union Address.

7-10%

returns on investment in early childhood education *per year*





“The data provide clear guidelines for action. American policy should acknowledge the power of the accident of birth. A child does not choose the family he or she is born into. But society can enrich the opportunities of disadvantaged children to flourish. We can do this by supplementing the parenting resources available to children and scaffolding the lives of children by approximating the nurturing and stimulating environments available to children in more advantaged families.”

— James J. Heckman

Professor Heckman spoke at the 2014 White House Early Childhood Education Summit on the importance of investing in early childhood stimulation and nurturing for disadvantaged children, which coincided with an announcement of \$1 billion in funding for preschools, partly justified on the basis of the Center’s research.

THE CENTER'S TEAM



LOOKING AHEAD

Professor Heckman and the research team at the Center for the Economics of Human Development ask big questions that get to the heart of issues of disadvantage, and our work has advanced research on effective interventions to alleviate inequality. However, if we are to produce evidence that is needed for sound policies and investments which eliminate the inequality of opportunity and income that is prevalent in schools, workplaces, and neighborhoods, and embedded in current policies and practices, there is much more work ahead.

Looking forward, we will continue to deepen our understanding of inequality and evaluate interventions that give equal opportunity to individuals in the United States and around the world. We will develop new methods for measuring inequality and create accurate and

empirically sound models through which we can examine inequality. We will evaluate the effects of early childhood interventions in order to maximize the impact of equitable and efficient public policies which improve child and social welfare. We will explore the role and influence of non-cognitive and socioemotional skills critical for achieving success in today's economy.

The Center will continue to serve as a hub for its researchers and affiliates to achieve a better understanding on topics such as design methodologies, econometric models, the role of the family in generating inequality, cost-benefit analyses, and the scalability of early childhood programs.

INVEST IN IMPACT

The generosity of the Center's donors is vital to our growth and continued success. Their support allows us to strengthen our investments in core research areas and seize new opportunities to expand our work on human development, inequality, and opportunity. Funding also enables the Center to disseminate its research findings broadly to policy makers and advocates, as well as to scholars and the public. The Center invites those who desire to make a difference in the growth and application of world-class research to contribute to the efforts of our researchers and staff to affect positive change in how society addresses inequality. Contributions advance the Center's research on the economics of human flourishing and help us to better understand the ways in which effective public policies can address the roots of inequality and promote opportunity. Gifts can be directed to support student researchers, cutting-edge interdisciplinary conferences and workshops, international collaborations with top scholars in the fields of inequality research, or to bring distinguished scholars to the Center from around the world.

THANK YOU

The Center for the Economics of Human Development is deeply grateful to its generous donors for their ongoing support. This community of contributors has helped the Center fulfill its mission in so many ways—from our research accomplishments and their dissemination, to our newly renovated home and building at 5740 & 5750 South Woodlawn Avenue, connected to the Saieh Hall for Economics.

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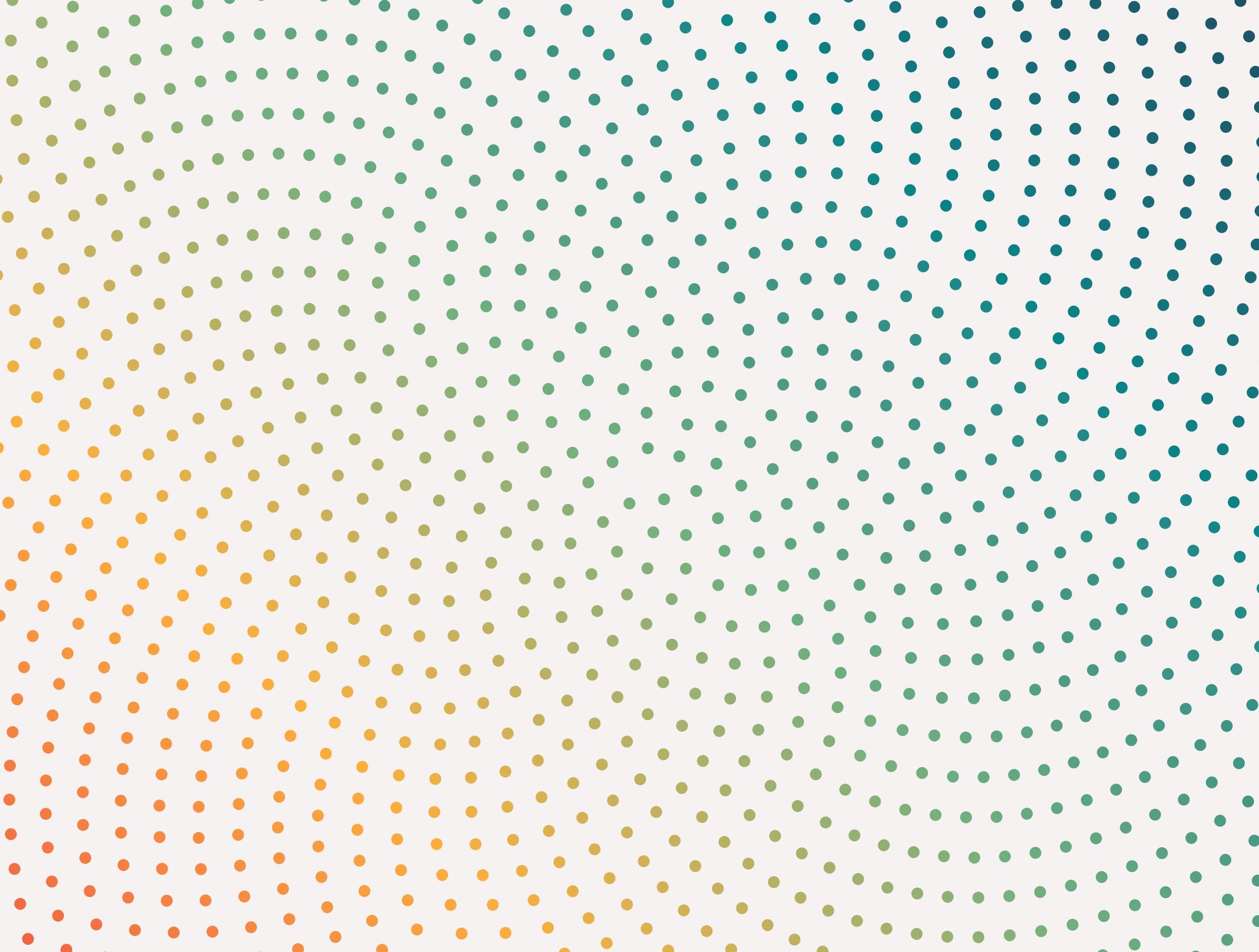
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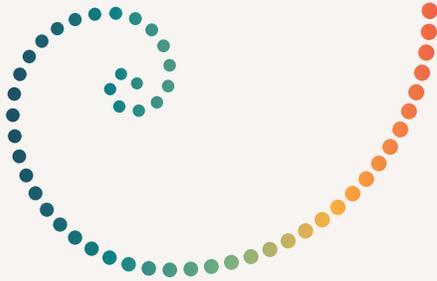
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