



laura and john arnold foundation



# REFORMING SYSTEMS TO IMPROVE LIVES

---

2016 Annual Report

---



We are pleased to share with you our *2016 Annual Report: Reforming Systems to Improve Lives*.

The Laura and John Arnold Foundation (LJAF) works to produce widespread, lasting improvements in people's lives by strengthening our nation's social, governmental, and economic systems.



This work goes beyond addressing the outward manifestations of a problem and requires us to conduct extensive research in order to identify ways to attack root causes. We are committed to advancing effective, sustainable reforms rather than short-term interventions that may have a limited impact. As a result, our time horizon is long.

Now, six years after our work began in earnest, some of our investments are generating important results.

- Judges in more than 30 jurisdictions across the United States are using the Public Safety Assessment (PSA), LJAF's pretrial risk assessment tool, to help make evidence-based release and detention decisions. Preliminary data suggests that the PSA is helping to reduce pretrial incarceration without a corresponding increase in crime.
- Our partnerships with researchers, police groups, and police departments have fostered and strengthened the use of evidence-based practices to best serve all communities.
- Our efforts to make governments more effective and efficient are bearing fruit in places like Rhode Island, where we have helped create opportunities for technical assistance providers and researchers to collaborate with government to evaluate the efficiency and effectiveness of a range of social programs.
- In K-12 education, we are making great strides in establishing the infrastructure needed to support the portfolio model of school governance, an innovative structure that emphasizes school choice, a decentralized administration, and flexibility and accountability for educators.
- In the areas of health care and scientific research, payers have been able to negotiate lower prices for drugs targeting certain conditions, and the federal government has adopted new requirements that will make clinical trials more transparent.

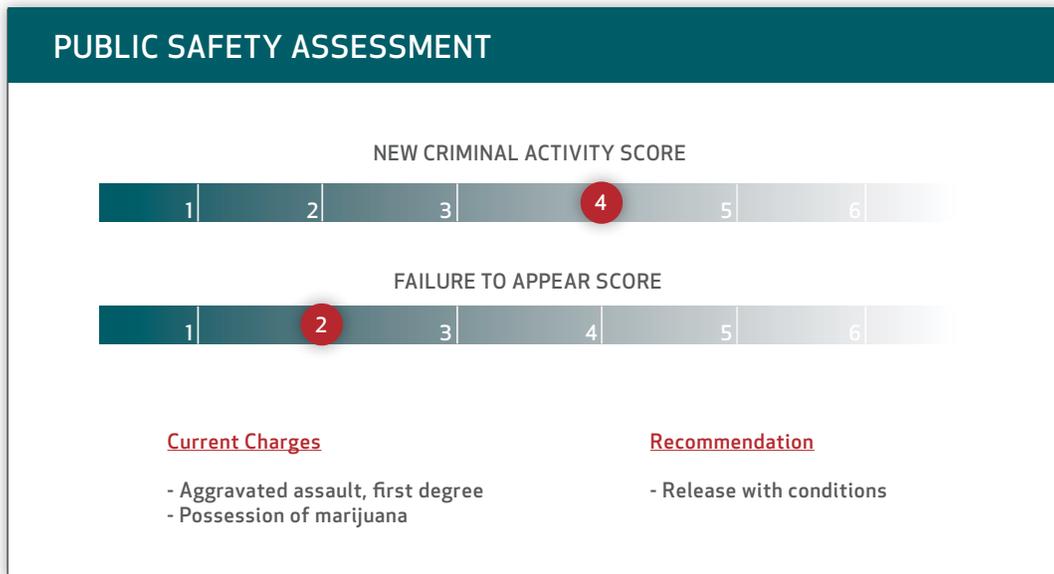
Although our funding is helping to drive significant movement in these particular areas, it is also supporting a number of other initiatives that we believe are poised for a breakthrough. In each of our issue areas, we follow a framework to identify promising ideas, pilot and rigorously evaluate those ideas, and, if they are successful, embed them into policy or practice. There are no easy solutions, and progress takes time. Yet we operate with a sense of great urgency and steadfast determination to build on our work in the year ahead.

Laura and John Arnold

# PRETRIAL RISK ASSESSMENT

Judges in more than 30 jurisdictions across the United States are now using the Public Safety Assessment (PSA), LJAF’s pretrial risk assessment tool, when making decisions about which defendants to release and which to detain prior to trial.

The PSA uses nine factors to produce two risk scores: one predicting the likelihood that an individual will commit a new crime if released pending trial and another predicting the likelihood that he or she will fail to return for a future court hearing. The tool also flags defendants that it calculates present an elevated risk of committing a violent crime. Scores fall on a scale of one to six, with higher scores indicating a greater level of risk. This neutral, reliable data can help judges gauge the risk that a defendant poses.



This image illustrates the type of information about a defendant that is provided to a judge.

In 2016, a number of new locations adopted the PSA, including San Francisco, Houston, Milwaukee, and Pittsburgh. The Foundation is closely monitoring the tool’s impact in jurisdictions where it has been implemented. We have commissioned a randomized controlled trial (RCT) to assess its effects in Dane County, Wisconsin, and are funding well-respected, independent research institutions to conduct extensive validation studies. In addition, we are working with individual jurisdictions to establish processes for the ongoing collection of data that can be used to evaluate the PSA.

The information gathered to date is encouraging. It provides strong indications that the PSA, in concert with other reforms, is having a positive impact. For example, recent data from Lucas County, Ohio, show that more individuals are being released on their own recognizance, pretrial crime is down, and significantly more people are reporting for court hearings since the county began using the PSA.

### PSA Impact in Lucas County, OH



These positive results suggest that the PSA is helping communities make their criminal justice systems more effective, efficient, and fair.

**The initial data also show the PSA to be free of predictive bias. It does not take into account information that could lead to discriminatory outcomes, such as a person's ethnic background, income, level of education, employment status, neighborhood, or any demographic or personal information other than age.**

The PSA was designed to support sound judicial decision making. It does not seek to replace the judge or impede his or her discretion or authority in any way. The decision about whether to release or detain a defendant always rests with the judge, regardless of the PSA risk scores.

## FINES AND FEES

**A**cross the country, court-imposed fines and fees routinely violate the basic rights of Americans who enter the criminal justice system. Individuals convicted of low-level crimes are often assessed crippling fines which can lead to jail time if those fines remain unpaid. This is true even in cases when incarceration would have been considered too harsh a penalty for the original crime. At the same time, offenders who have already served their sentences often leave prison with extensive debt that they are unable to pay. The system has a disproportionate impact on low-income individuals and people of color, creating adverse long-term consequences such as wage garnishment, fewer job opportunities, depressed credit ratings, housing instability, driver's license suspensions, and a loss of Social Security benefits.

Fines and court-imposed fees for services—including public defense, DNA collection, court paperwork, prison room and board, electronic monitoring, probation, and even the collection of the debt itself—often serve as a revenue stream for governments and are unrelated to any larger criminal justice objective, including public safety.

---

**LJAF is funding a coalition of organizations to develop a nationwide reform movement focused on addressing the use of monetary sanctions.**

---

The Southern Poverty Law Center serves as the home to this national network of advocates, researchers, and attorneys, and is supporting strategic litigation efforts in Alabama, Mississippi, and Louisiana to combat the use of private probation and debtors' prisons. Similarly, the American Civil Liberties Union is supporting litigation efforts across the country to stop the jailing of the poor and to establish fair hearings. It filed a federal suit against Biloxi, Mississippi, and a class action suit against Benton County, Washington, for operating debtors' prisons. Both efforts resulted in critical settlements ending debtors' prisons and securing rights for indigent defendants. They serve as models for reform in other jurisdictions.

Other entities working as part of the coalition include the Harvard Law School Criminal Justice Policy Program and the Juvenile Law Center. The team at Harvard is creating a web-based tool that will, for the first time, allow policymakers and others to compare laws related to fines and fees across states and analyze the ways that those laws either promote or prevent abusive practices. The team will also act as nonpartisan expert advisors to states that are prepared to implement reforms. The Juvenile Law Center, meanwhile, has produced a groundbreaking report highlighting the prevalence and impact of fines and fees in the juvenile justice system. The report has helped generate significant momentum in the effort to end the use of fines and fees in the juvenile space.

# POLICING

JAF is working to help address critical issues in policing through the use of rigorous research. We are funding high-quality research initiatives that can have practical implications for the field and can be used to develop recommendations for specific policies and practices to drive improvements.

In 2016, we seeded a partnership between the International Association of Chiefs of Police (IACP) and the University of Cincinnati (UC) to create the IACP/UC Center for Police Research and Policy. The center, intended to serve as a national model for collaboration among law enforcement agencies and researchers, is focused on protecting communities, safeguarding citizens' rights, and ensuring the fair treatment of all individuals. It is building an experienced, credentialed team to evaluate policing practices in order to identify those that are effective and fair. The partnership will facilitate the exchange of data and research between the policing community and academia.

We are also funding a number of studies to evaluate the impact of police body-worn cameras on public safety, policing strategies, and community perceptions of law enforcement in an effort to promote transparency and improve police-community relations. Researchers are expected to release their findings to the public in late 2016 and early 2017.

In addition, we support the John Jay College of Criminal Justice and its Research Network on Misdemeanor Justice. The project is assessing how jurisdictions respond to low-level, nonviolent offenses such as noise violations, operating a vehicle without a license, possession of marijuana, and riding a bicycle on a sidewalk. The enforcement of low-level offenses through stops, summonses, and arrests represents the highest-volume gateway into the criminal justice system. Yet we have very little reliable data to guide sound policy and practice in this area. The Research Network is building the first national evidence base to inform decisions about how to handle these critical interactions between the police and the public.

## Enforcement Rates by Race/Ethnicity in New York City from 2003-2014



Data Sources: Division of Criminal Justice Services for Felony Arrests, New York City Police Department for Misdemeanor Arrests and Pedestrian Stops, and United States Census Bureau for Population Counts. Originally published in: Chauhan, P., Warner, T.C., Fera, A.G., Balazon, E., Lu, O., & Welsh, M. with an Introduction by Jeremy Travis (2015, December). Tracking enforcement rates in New York City, 2003-2014. Report presented to the Citizens Crime Commission. New York: New York.

# EVIDENCE-BASED POLICYMAKING

A year after LJAF announced a major expansion of its work to advance evidence-based decision making, our team is helping to establish the infrastructure and processes needed for governments to routinely use data and evidence in the development of public policies.

The federal government spends hundreds of billions of dollars per year on social programs intended to improve people's lives, and states spend nearly as much. Yet we know very little about which of these programs actually work. Policymakers and agency leaders often make decisions based on anecdote, opinion, or intuition rather than on reliable evidence, and governments frequently lack the resources needed to evaluate their programs. In general, the public sector does not always foster a culture of continuous improvement.

We believe that by rigorously evaluating programs and interventions, we can learn what truly helps to address pressing problems such as poverty, student achievement gaps, juvenile crime, and poor health outcomes. Once we have clear and convincing evidence of which programs drive measurable improvements, we can then replicate and scale them in order to make the greatest impact.

In support of this approach, we provided funding for the Evidence-Based Policymaking Collaborative. The collaborative, launched this fall, encompasses a diverse group of stakeholders, including the American Enterprise Institute, the Brookings Institution, the Pew-MacArthur Results First Initiative, and the Urban Institute. It has created a set of principles for evidence-based policymaking in order to advance widespread adoption.

We are helping governments incorporate these principles into their operations by funding government-research partnerships, technical assistance, Pay for Success initiatives, and data infrastructure projects. We are also working to build the body of effective social programs so that governments can more easily implement those that will produce meaningful improvements in their communities.

## Evidence-Based Policymaking Collaborative Core Principles

### PRINCIPLE

1

Build and compile rigorous evidence about what works, including costs and benefits

### PRINCIPLE

2

Monitor program delivery and use impact evaluation to measure program effectiveness

### PRINCIPLE

3

Use rigorous evidence to improve programs, scale what works, and redirect funds away from consistently ineffective programs

### PRINCIPLE

4

Encourage innovation and test new approaches

# POLICY LABS

One of the primary ways that we help governments become more effective is by seeding policy labs. These are innovative government-research partnerships in which governments work with experienced researchers to study issues, learn about existing programs, and test new approaches. Programs that are shown to be effective can be replicated and scaled, while those that do not deliver the hoped-for effects can be improved or replaced. Through this process, governments commit to continual evaluation and learning in order to solve problems and ensure that limited tax dollars are spent wisely.

## Policy Lab Model

### COLLABORATE



Government officials and researchers work together to determine the most important issues for a jurisdiction. They develop a shared agenda that prioritizes key areas of focus.

### REFINE



Partners commit to a process of continual evaluation and learning in order to make meaningful progress in addressing challenging social issues.

### PILOT



Partners identify potential improvements to existing policies and programs or create entirely new ones. They then test those new models, evaluate the impacts, and make modifications as needed.

Launched in the fall of 2016, the Michigan Policy Innovation Lab, a partnership between the state of Michigan and the University of Michigan, focuses on improving policy in a number of areas impacting youth, including education, child welfare, and juvenile justice. The Lab @ DC, also launched late this year, is a collaboration between Washington, D.C. and a number of university partners. It conducts evidence reviews, data analyses, and research studies aimed at improving local policies related to public safety, economic opportunity, education, and government operations.

Other investments in this area include funding for the Rhode Island Innovative Policy Lab, the Houston Education Research Consortium, and the Education Research Alliance for New Orleans.

# TECHNICAL ASSISTANCE

JAF supports technical assistance to help governments embed evaluation into their programs and adopt data-driven and evidence-based practices that can improve services.

Our grant to the Harvard Kennedy School's Government Performance Lab (GPL) supports training and on-the-ground assistance for jurisdictions that are interested in using data and innovative procurement strategies. The lab is developing partnerships with a select number of state and local governments working to carry out performance improvement projects such as matching the right clients to the right services, setting up systems to track and improve performance, and establishing performance-based payments for social service providers.

---

**In 2016, GPL helped the Rhode Island Department of Children, Youth, and Families re-procure all contracted services that are provided to support children and families in the state. The new contracts include performance metrics and a system to monitor performance in real time, enabling the agency to more effectively work with service providers.**

---

These enhancements will be scaled to other Rhode Island state agencies, including the Department of Human Services and the Department of Labor and Training.

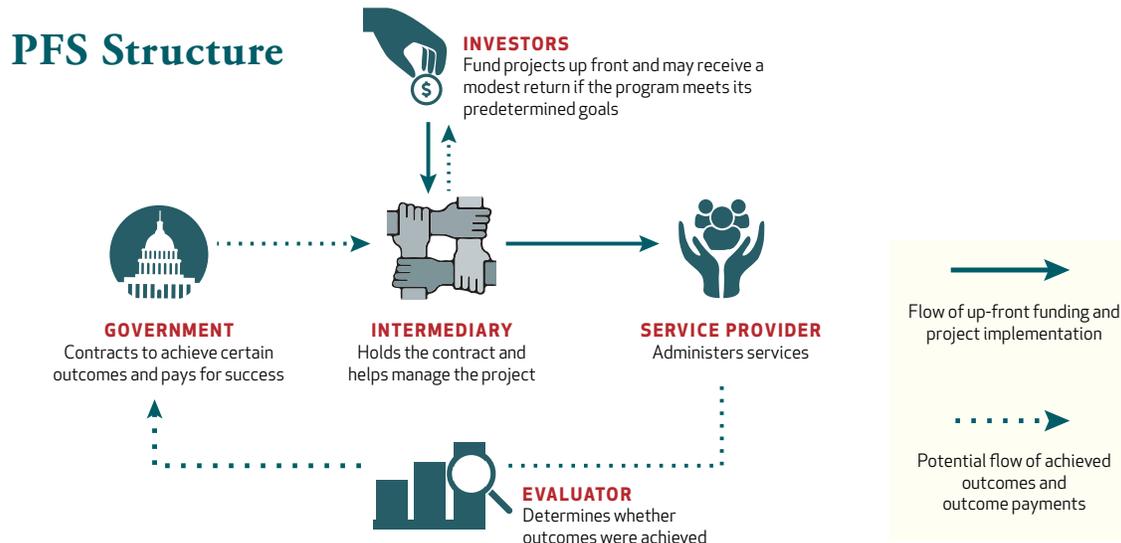
At the federal level, we fund the Social and Behavioral Sciences Team (SBST), a cross-agency group of applied behavioral scientists, program officials, and policymakers that helps government agencies apply behavioral science insights—that is, research findings about how people make decisions and act on them—to design public policies and programs. The goal is for the federal government to better connect public programs with those they are intended to serve: accessing and using programs should be intuitive; information and choices among program options should be clear; and forms should be easy to complete.

SBST is working in a variety of areas, such as expanding access to health insurance, promoting economic opportunity, and responding to climate change. It has conducted 32 pilot projects, including one intended to help people who have defaulted on their student loans. These individuals face serious penalties such as collection fees, credit damage, wage garnishment, and forfeiture of federal tax refunds. To help people avoid these penalties, the U.S. Department of Education (ED) allows borrowers to enter into a loan-rehabilitation agreement. SBST worked with ED to implement minor changes that prompted more people to take advantage of the program. Emails sent to eligible borrowers that emphasized the consequences of inaction—rather than the benefits of action—generated 41 percent more calls to default-resolution representatives. Moreover, scheduling borrowers to call in at a specific appointment time increased the call-in rate by 61 percent.

# PAY FOR SUCCESS

Another way that LJAF works to promote evidence-based decision making is through our investments in Pay for Success (PFS) initiatives.

PFS is an innovative funding model that helps state and local governments direct resources toward better, more effective programs. Under the model, the government outlines specific outcomes that it would like to achieve and works with independent experts to identify a service provider with the greatest potential to produce the target results. Private investors and philanthropic organizations cover the upfront costs of the services and are repaid by the government only if a third-party evaluator concludes that the program reached its predetermined goals.



In 2016, LJAF supported three new PFS projects. In Denver, the Social Impact Bond Program is providing permanent housing and supportive services to at least 250 chronically homeless individuals who frequently interact with the local criminal justice and health care systems. The program is designed to help break the cycle of homelessness, hospitalization, and incarceration for some of the city's most vulnerable residents.

In South Carolina, the Nurse-Family Partnership Program is focused on improving health outcomes for mothers and children living in poverty. The statewide program pairs low-income, first-time mothers with specially trained nurses who visit the mothers at home from early pregnancy through their child's second birthday. The nurses provide education and support that can help women have healthy pregnancies, become informed and responsible parents, and give their babies the best possible start in life.

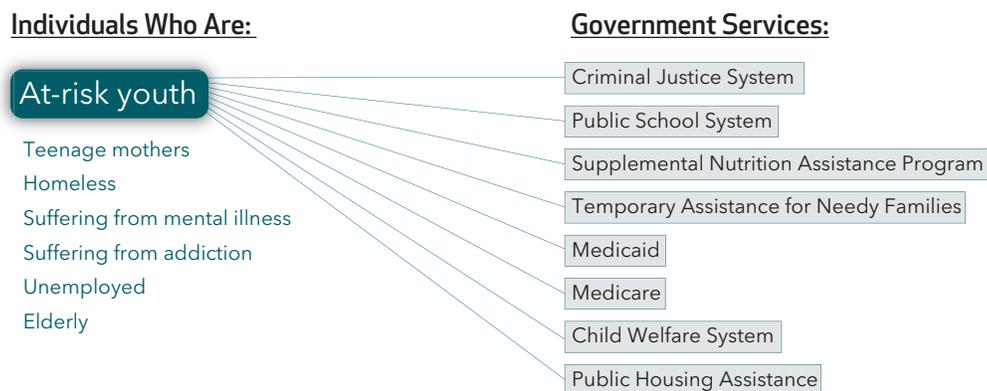
A third project, the Connecticut Family Stability Project, is aimed at improving the lives of families struggling with substance abuse. Through the program, treatment teams consisting of two clinicians and a family support worker visit eligible families at home several times a week to increase stability. The teams promote positive parent-child interactions, help parents understand how children develop, and support parents on their paths to recovery.

# DATA INFRASTRUCTURE

**G**overnments routinely collect administrative data but rarely use that information to evaluate and improve their programs. Antiquated data systems, ambiguous legal requirements, and poor coordination among agencies often prevent researchers, practitioners, and policymakers from analyzing privacy-protected information that could be used to identify trends and strengthen initiatives.

We invest in projects to develop systems that will make using and linking data easier, cheaper, and more routine. One such project is our grant to Virginia Tech's Social and Decision Analytics Laboratory, which is working with local governments to link data collected from different agencies in an effort to help solve important community problems. We also fund New York University's executive program in applied data analytics, an initiative that allows approved government employees to receive hands-on training from researchers on how to use data to solve problems in their jurisdictions.

## Lack of Integrated Data Systems Hinders Progress



Currently, the vast majority of government data systems are siloed, making it difficult for officials to analyze information that could be used to coordinate and improve services in order to more effectively support target populations.

In addition, we support Chapin Hall, a research and data lab at the University of Chicago, and its efforts to help streamline and expand the U.S. Census Bureau's data infrastructure. Currently, it can take years for researchers to gain approval to access federally held data. It is then necessary for researchers to obtain separate project approval and travel to a physical data center. There is no formal process for helping researchers appropriately use and link their own data to the federal data. Chapin Hall will assist the leaders of a number of policy-important projects in accessing and linking data, and will pave the way for future initiatives.

We also fund Harvard University's Ash Center for Democratic Governance and Innovation and the Center for Data Science and Public Policy at the University of Chicago in their joint effort to create a national network of urban chief data officers who are collaborating to solve problems related to poverty and other ills through the use of data visualization and predictive analytics.

# TARGETED RESEARCH

JAF is funding research in several areas of high policy importance, including minimum wage, early childhood education, and disability insurance, among others. In these areas, the existing evidence base does not provide a comprehensive evaluation of how current policies and programs affect individuals, families, and communities.

We awarded a grant to a team of researchers at the University of Washington to study the impact of minimum wage increases for low-income workers and families in Seattle and Chicago. The city of Seattle implemented an ordinance that will gradually raise the minimum wage to \$15 per hour. Preliminary research findings suggest that “Seattle’s low-wage workers did see larger-than-usual paychecks (*i.e.*, quarterly earnings) in late 2015, but most—if not all—of that increase was due to a strong local economy.” The analysis of the increase in Chicago will be published early next year, and an updated report on Seattle will be released in August 2017. We are also funding research to assess the minimum wage in Massachusetts, Minnesota, Rhode Island, Oregon, and Washington.

Two other projects in this area involve using administrative tax data from the Internal Revenue Service to study the impact of higher minimum wages on Earned Income Tax Credit benefits and an effort to assess the broad effects of minimum wage policies on poverty.

In addition, our team is conducting a targeted research push focused on early childhood education. Preschool programs are often a key part of efforts to prepare children to succeed in their academic careers—and federal, state, and local governments allocate significant resources to support these programs. Yet programs vary widely in the way they are structured and how they are implemented. Moreover, few programs have been rigorously evaluated to determine their long-term impact. We are funding several initiatives to measure how preschool affects key educational outcomes and identify successful models. Our portfolio includes a grant to MDRC for three RCTs to assess whether certain approaches, such as aligning programs to early elementary curricula or offering summer enrichment classes, improve student outcomes.

LJAF is also funding research on federal disability insurance programs. There are questions about whether existing programs do enough to help workers reach their employment potential and maintain economic self-sufficiency, as well as concerns about whether the programs have been implemented in a fiscally sustainable way. We are funding the Urban Institute to build a digital tool that will allow researchers and policymakers to analyze disability data from the Social Security Administration and create resources that will help the public better understand the key elements of the Social Security Disability Insurance program. Another initiative is the Independence Project, which is testing whether wage enhancements and additional job placement supports for veterans with disabilities can help them find long-term employment.

## AREAS OF INTEREST

- ▶ Minimum Wage
- ▶ Early Childhood Education
- ▶ Disability Insurance

# BUILDING THE BODY OF EFFECTIVE SOCIAL PROGRAMS

**W**hile a major portion of our work in evidence-based policymaking is focused on helping governments embed research and evaluation into programs and services, we also directly conduct evidence reviews and fund rigorous evaluations to identify programs that are shown to be successful. We then disseminate the information in order to encourage governments to adopt these highly effective programs.

Some initial studies have now produced early findings, laying the foundation for future analyses. In addition, this year we committed funding to support new research aimed at assessing a variety of programs in key policy areas. We also launched a competition to conduct large-scale replication studies of programs with strong prior evidence.

Our team supports high-quality evaluations, including—whenever possible—RCTs, which are considered the gold standard in study design. Though common in fields such as medical research, RCTs are not as widely used to evaluate social programs due in part to the perception that they can be expensive to conduct.

---

**We are working to demonstrate that large, high-quality RCTs can be conducted at a modest cost—often through the use of privacy-protected administrative data that are already being collected for other purposes—in order to provide answers to critical policy questions.**

---

Through our Low-Cost RCT Competition, we fund dozens of RCTs that receive high ratings from our expert review panel.

In 2016, we received the early impact findings from two of the initial studies conducted through this competition. The first evaluated Bottom Line, a program that provides one-on-one guidance to help low-income, first-generation students get into and graduate from college. The study is measuring college enrollment, persistence, and completion outcomes for roughly 2,400 students over a seven-year period using administrative data from the National Student Clearinghouse. The early findings are highly promising, indicating a six percentage point increase in college enrollment, and a 10 percentage point increase in enrollment in a four-year college, compared to the control group. Future analysis will provide insights about whether the effects endure and ultimately lead to an increase in degree completion.

The second study was a large RCT of workplace health and safety inspections conducted by the Occupational Safety and Health Administration (OSHA) at manufacturing and transportation companies, warehouses, nursing homes, and other establishments. The evaluation used administrative records to determine whether OSHA's random inspections among a sample of 13,000 businesses led to fewer on-the-job injuries. It found that, on average, each random inspection prevented approximately one serious injury that would have resulted in a day away from work. It also found that the inspections did not have a statistically significant effect—positive or adverse—on business outcomes such as employment, sales, or a firm's credit rating.

This year, we significantly increased our investment in low-cost RCTs. We also selected a new round of randomized evaluations that are being funded in response to requests for proposals. Example projects include:

- An RCT of Big Brothers Big Sisters of America's community-based mentoring program for disadvantaged youth, many of whom are at risk of criminal involvement. The study, involving 2,500 youth, is being conducted in 20 Big Brothers Big Sisters agencies nationwide to measure the program's impact on crime, delinquency, substance use, and other outcomes over a period of approximately five years.
- An RCT of the Bronx Freedom Fund, a low-cost, scalable alternative to pretrial detention. Defendants who do not have the money to post bail often plead guilty at arraignment to avoid suffering pretrial incarceration. The Freedom Fund posts bail for poor misdemeanor defendants whose bail is set below \$2,000. When defendants reappear for court, the group recovers the bail money and returns it to its revolving fund. The evaluation, involving 600 clients, seeks to determine whether the fund reduces convictions caused by a client's inability to post bail—without generating the unintended consequence of increased recidivism over the long term.
- An RCT of a program that provides vision screenings for nearly all elementary and middle school students in Baltimore City Public Schools as well as free eyeglasses for any child who needs them. This large-scale initiative represents a unique opportunity to track academic achievement and determine whether a simple intervention—a pair of eyeglasses—can have a significant impact on student learning. The study will analyze reading and math scores on Maryland state achievement tests for students in grades 3-8 over a two-year period.

In addition, through our Top Tier Evidence Initiative and other efforts, we systematically monitor the evaluation literature to identify and report on social interventions backed by credible evidence of sizable, sustained effects of important life outcomes. Though many programs are, unfortunately, found not to produce the hoped-for effects when rigorously evaluated, high-quality RCTs have identified roughly 15 social programs that produce strong outcomes.

To help expand these credible programs to more communities and “move the needle” on social problems, this year we launched the Moving the Needle Competition. The competition will incentivize state and local governments and nonprofit organizations to implement one of the identified programs with faithful adherence to its key features. We will also fund replication RCTs to determine whether the major impacts found in prior studies can be successfully reproduced under large-scale implementation conditions.

# FISCAL SUSTAINABILITY

Effective governments deliver high-quality services and ensure that taxpayer dollars are spent wisely. We fund a number of efforts intended to help governments maintain good fiscal health by strengthening budgeting practices, developing sound tax policies, and creating secure retirement systems.

In the area of state and municipal budgeting, we support the Volcker Alliance, which will conduct a multi-year study to help improve fiscal sustainability in all 50 states. The group will produce a report for each state, grading its budgetary practices and outlining recommended reforms. We are also funding Harvard University's Ash Center for Democratic Governance and Innovation and U.S. Common Sense, a nonprofit focused on open government, to curate and catalog existing research studies on government efficiency. At the University of Chicago's Harris School for Public Policy, we are supporting research that aims to improve government funding and spending practices.

## AREAS OF INTEREST

- ▶ State and Municipal Budgeting
- ▶ Tax Policy
- ▶ Retirement Security

Tax policy research is another key component of our effort to promote fiscal sustainability. The way that taxes are collected and the way that funds are disbursed impacts the local economy, quality of life, and delivery of public services. However, little is known about the efficiency or efficacy of many tax policies that are designed to discourage certain behaviors, incentivize economic development, or address other issues. Furthermore, efforts to develop good tax policy are often hampered by a lack of credible evidence.

We fund the Urban-Brookings Tax Policy Center to study federal, state, and local policies, and to identify sound ways to promote economic growth. For example, the group recently issued a research report on government subsidies for professional sports stadiums. Researchers found that although the federal government has provided \$3.2 billion in subsidies since 2000, there is little evidence that these stadiums benefit local and state economies. In addition to supporting the center's research agenda, we are funding the development of a strategy for how researchers and policymakers can securely share privacy-protected administrative tax data in order to study the effects of tax policies. Our funding also supports The Pew Charitable Trusts' Improving State Economic Development Project, which is focused on helping states incorporate the rigorous evaluation of tax incentives into the policymaking process. It will develop the tools and capacity for evaluation, produce analysis with clear policy options, and work to strengthen existing economic policies.

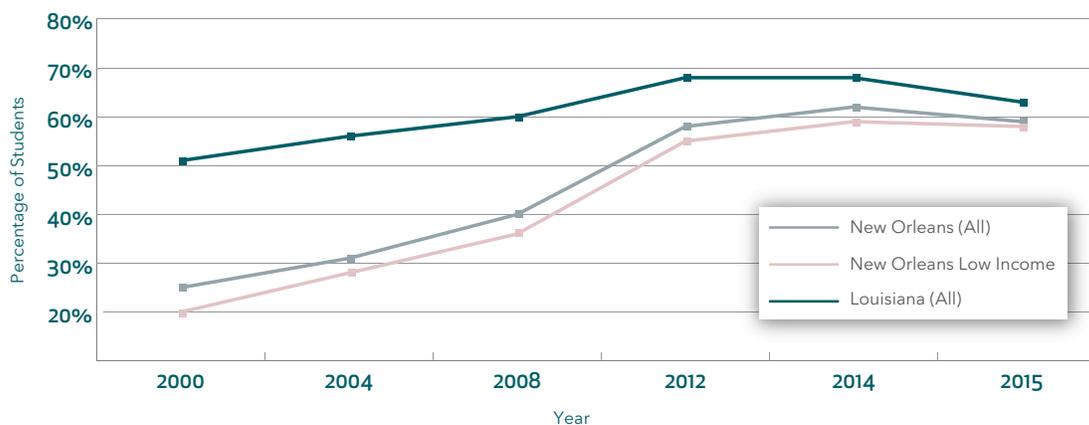
In addition, LJAF is working to address rising public pension costs, which are one of the greatest threats facing our communities. Cities and states have racked up a record amount of pension debt in the past decade. Governments owe at least \$1.7 trillion for benefits workers have already earned. Without comprehensive reform, policymakers will be forced to make tough choices that could lead to serious consequences for workers and taxpayers. In partnership with the Reason Foundation and The Pew Charitable Trusts, we provide technical assistance to help cities and states identify fair and sustainable solutions to their pension problems. For example, the Reason Foundation played a leading role in helping the state of Arizona develop a plan this year to address \$6.6 billion in pension debt for the fund that covers firefighters and law enforcement. We also support a variety of retirement security research projects, including studies on teacher pensions and state-sponsored plans for private sector workers.

# SCHOOL GOVERNANCE REFORM

**B**uilding on the promising school turnaround effort currently underway in New Orleans, LJAF is supporting cities that are working to implement similar reforms. In 2016, we expanded our Education team, approved sizable new grants, and refined our strategy to advance the portfolio model of school governance in cities across the United States, including Washington, D.C.; Memphis, Tennessee; Indianapolis, Indiana; Camden, New Jersey; and Baton Rouge, Louisiana.

In New Orleans, where the percentage of students performing at grade level has doubled since 2004, the portfolio model is helping to increase opportunities for students, empower educators, and ensure greater accountability within the school system.

## New Orleans Students Are Closing the Achievement Gap



This graph illustrates the percentage of students who scored at grade level or above on state assessments.

The portfolio model is predicated on the separation of school governance and school operations. Whereas traditional districts own and operate all schools—employing a one-size-fits-all approach—portfolio districts encourage innovation and diversity in school options by allowing a variety of schools to operate autonomously. Districts are removed from the day-to-day management of schools and instead focus primarily on holding schools accountable for performance and equity under a common framework. Portfolio districts give families the freedom to choose from a range of high-quality schools using a citywide enrollment process. The structure is designed to ensure that all schools have equal access to public funding and facilities.

LJAF's investments in this area promote excellent schools, help to develop talented teachers and school leaders, and support engaged communities. We believe that the portfolio model has the potential to dramatically increase academic achievement across entire cities and can play an important role in addressing the most deeply entrenched inequities in public education.

# PAYMENT REFORM AND BEST PRACTICES

JAF is working to improve the quality of care and reduce costs in the U.S. health care system. A major portion of our funding supports the Harvard HealthCare Markets and Regulation Lab, which is conducting research on high-impact policies in six key areas, including payment reform, patient engagement, health care exchanges, delivery system transformation, quality measurement, and risk adjustment.

One of the group's primary projects is focused on evaluating innovative ways to reduce Medicare costs without compromising patient care. The team is studying the clinical and economic impact of new payment models in Medicare, including models such as the Medicare Shared Savings Program (MSSP). The MSSP supports Accountable Care Organizations (ACOs), which are delivery systems that are eligible to receive shared-savings bonuses if quality is high and spending is below the targeted level. Late this year, researchers published several LJAF-funded studies that found that ACOs participating in MSSP generated a relatively modest direct savings of \$287 million for Medicare over two years. When indirect effects were included, savings to Medicare rose to \$685 million, which represents 1.6 percent of Medicare spending. The authors concluded that shared-savings contracts "may be a fiscally viable alternative payment model for Medicare" and that higher levels of ACO participation and stronger incentives could produce greater savings.

---

**LJAF also supports organizations that are designing and implementing strategies to accelerate the spread of best practice protocols for physicians and health systems.**

---

We fund the High Value Healthcare Collaborative (HVHC), whose member health systems serve 20 percent of the U.S. population. After receiving patient consent, members securely share anonymized data and information across the network in an effort to rapidly identify, test, and spread innovations in the delivery of care. This year, HVHC developed a care model and instructional materials outlining a highly effective way to treat hospital patients with sepsis.

Sepsis is a complication that occurs when chemicals produced by the patient to fight infection are released into the bloodstream, triggering widespread inflammation. It is the leading cause of death in U.S. hospitals, in part because early symptoms mimic the flu. Once diagnosed, a precise set of treatments must be delivered within a specified period of time. HVHC hospitals that piloted the evidence-based sepsis care model produced early improvements in patient survival rates. Now, a team of doctors, nurses, lab technicians, and pharmacists is engaging staff across the collaborative in hands-on training and is tracking the effectiveness of that training by monitoring patient outcomes and cost savings. If the team demonstrates widespread gains in sepsis outcomes, HVHC will apply the framework to improve treatment methods for other conditions and diseases.

# PHARMACEUTICAL PRICING

A critical component of our work to improve health care in the United States involves finding ways to address the rising cost of pharmaceutical drugs. Spending on prescription medications has reached record highs in recent years, prompting individuals to skip vital treatments and making it difficult for governments to meet their Medicaid obligations.

In 2016, we expanded our portfolio of investments in this area and funded new research and pilot projects. These efforts are intended to help reduce the financial barriers that can make it difficult for patients to obtain the medicines they need without destroying incentives for innovation in drug development. The research projects are focused on analyzing how regulatory policies and programs impact drug pricing, drug development, and patients' access to medication. The pilot projects will test new drug pricing and purchasing models that take into account a drug's value to patients—that is, how well it works and how much it costs relative to existing alternatives.

Two of our grantees in pharmaceutical pricing made important contributions this year by publishing research that identified key cost drivers in the dysfunctional pharmaceutical market and by producing reports for new drugs that specify value-based price benchmarks.

The Program On Regulation, Therapeutics, And Law (PORTAL) at Harvard University issued a widely cited report stating that the alarming increase in drug prices is due primarily to brand-name drugs, which are protected by patent rights awarded at the time of Food and Drug Administration (FDA) approval. An exclusivity period, combined with a variety of business and legal constraints that target generic drug manufacturers, limits competition that could otherwise help to reduce prices. The report also found that there is no link between a drug's research and development costs and the price set by the manufacturer. Instead, the researchers found prices are primarily based on what the market will bear.

## THE WALL STREET JOURNAL.

“A Houston-based philanthropist couple is adding their financial firepower to efforts to make prescription drugs more affordable in the U.S. The Laura and John Arnold Foundation will...fund research and pilot projects aimed at reining in drug costs and lowering financial barriers for patients.” - Feb.17, 2016

In addition to identifying the causes of rising prices, the PORTAL team outlined a number of short-term strategies to correct the problem. These include “enforcing more stringent requirements for the award and extension of exclusivity rights; enhancing competition by ensuring timely generic drug availability; providing greater opportunities for meaningful price negotiation by governmental payers; generating more evidence about comparative cost-effectiveness of therapeutic alternatives; and more effectively educating patients, prescribers, payers, and (policymakers) about these choices.”

The report, published in *JAMA*, is helping to inform the debate over drug pricing, as is the work of the Institute for Clinical and Economic Review (ICER).

ICER is an independent, trusted source of information about pharmaceutical drugs. It is producing public reports on new medicines that have the potential to significantly change patient care and health system budgets. Since the beginning of 2015, ICER has issued eight reports covering 26 drugs. Each report, produced near the time of a drug's FDA approval, includes a full analysis of the drug's comparative effectiveness, cost-effectiveness, and potential budget impact. In addition, ICER uses transparent methods to calculate for each new drug a value-based price benchmark anchored to the real benefits the drug delivers to patients. The ICER reports offer important insights into how well a drug works and for which patients, and how it compares to other drugs that are already on the market. This provides a transparent, objective basis for price negotiations and coverage decisions.

According to a study of 99 national and regional payers conducted by a health care consulting firm, 58 percent are using ICER reports as an independent source to validate internal analyses and determine affordability. Payers have said that the ICER reports have allowed them to negotiate lower prices for drugs targeting high cholesterol and multiple myeloma.

#### **ICER REPORTS ADDRESS FOUR KEY QUESTIONS:**

- ▶ How well does the drug work?
- ▶ How much better is it than what is already available?
- ▶ How much could it save?
- ▶ How much would it cost to treat everyone who needs the drug?

Reports are developed with input from patients, doctors, drug makers, and others.

In addition to our support for PORTAL and ICER, we are funding researchers at Memorial Sloan Kettering Cancer Center to study, pilot, and evaluate value-based payment structures for specialty drugs that link a drug's price to evidence of how well it works and for which patients. The team is also analyzing other payment models and policy proposals that have the potential to reduce patient costs.

Another investment is our grant to the Center for Evidence-based Policy at Oregon Health and Science University in support of its efforts to analyze the prescription drug development pipeline, the regulations that govern Medicaid drug purchasing, and best practices for alternative purchasing models. The center will work with states to design a set of pilot programs to test alternative purchasing models that tie Medicaid reimbursement to improved patient health and promote sustainable state Medicaid budgets.

We are also funding the National Academy of Sciences Institute of Medicine to conduct a study examining patients' access to effective and affordable therapies. Researchers will create a set of policy recommendations aimed at making it easier for patients to get the drugs they need at a sensible price.

# CLINICAL TRIALS

Clinical trials provide important insights into how well a drug works and its full range of effects and side effects. This information is essential in order for doctors and patients to make educated decisions about the best course of treatment—yet more than a third of the clinical trials conducted in the United States and around the globe, per drug, are never fully disclosed.

As part of our work to increase clinical trial transparency, LJAF submitted comments to the FDA and the National Institutes of Health. This fall, the federal government implemented new requirements for clinical trials. Scientists must now publish trial results even if the tested drug is not approved by the FDA and must publish full trial protocols and statistical analysis plans. This is a significant development in the effort to make clinical trials more open and will ultimately help to improve patient health and accelerate discovery in medical research.

Other initiatives in clinical trial transparency include funding for the Centre for Evidence-Based Medicine at Oxford University and its COMPare project. COMPare systematically reviewed every trial published in the top five medical journals between October 2015 and January 2016 to determine whether the reported outcomes were consistent with the plan established by the researcher at the outset of the study. It found that, on average, each trial reported just 58 percent of its specified outcomes and silently added approximately five new outcomes.

---

**By omitting null or negative results and emphasizing new or positive findings, scholars fail to present a full picture of their research and may even overstate a treatment’s potential benefits and understate its potential harms.**

---

COMPare sent letters to journal editors, noting outcomes that were added or unreported in the journals’ published trials. It also tracked which journals published the letters and which did not. The effort is helping to improve accountability for researchers and journals. For example, after COMPare found that all five of the trials it reviewed from *Annals of Internal Medicine* misreported their pre-specified outcomes, the journal made a series of changes to its publication standards. All trials submitted must now include a protocol with dated amendments, and the journal says it plans to publish these alongside the accepted trial reports.

In addition, we funded Bioethics International to expand its Good Pharma Scorecard, which is focused on increasing clinical trial transparency and integrity so that patients and physicians have more information when making treatment decisions. The first edition of the scorecard ranked the 20 largest pharmaceutical companies and their new drugs based on the degree to which the companies disclosed the results of their clinical trials. Our funding is now allowing Bioethics International to provide rankings for all new drugs, vaccines, biologics, and devices approved by the FDA. The expanded scorecard will also include information about a pharmaceutical company’s willingness to disclose the clinical trial data and results.

# METHODS AND TOOLS

In 2016, the push for open science research methods gained significant momentum, driven in part by the Reproducibility Project: Psychology. This landmark LJAF-funded initiative examined the results of 100 psychology studies and found that two thirds could not be replicated, raising questions about the validity of the initial study findings and what they mean for the field. Important recent developments include the implementation of new publication standards and the proliferation of open science tools and incentives.

A number of scientific journals announced new policies to improve the quality of scientific research. These standards are intended to encourage preregistration and data sharing in order to promote reproducibility. For example, the editor at *Social Psychological & Personality Science* cited the Reproducibility Project when she outlined more rigorous guidelines for studies accepted for publication and stated that the journal will specifically seek replication studies.

In addition, the number of scientists using the Open Science Framework (OSF) has roughly doubled over the past year. The OSF, created by the LJAF-funded Center for Open Science (COS), makes it possible for scientists to preregister their studies and share their data, computer code, and research materials. COS is establishing partnerships with specific research institutions, such as the University of Notre Dame and the University of Southern California, to encourage scholars to use the tool.

With funding from LJAF, COS also launched a preregistration challenge intended to incentivize researchers to register studies on the OSF. We are supporting a similar competition at the University of Michigan aimed at improving the quality of political science research by encouraging journals to accept articles based on the strength of studies' preregistered hypotheses and design, rather than their results. A number of top political science journals are participating in the competition.

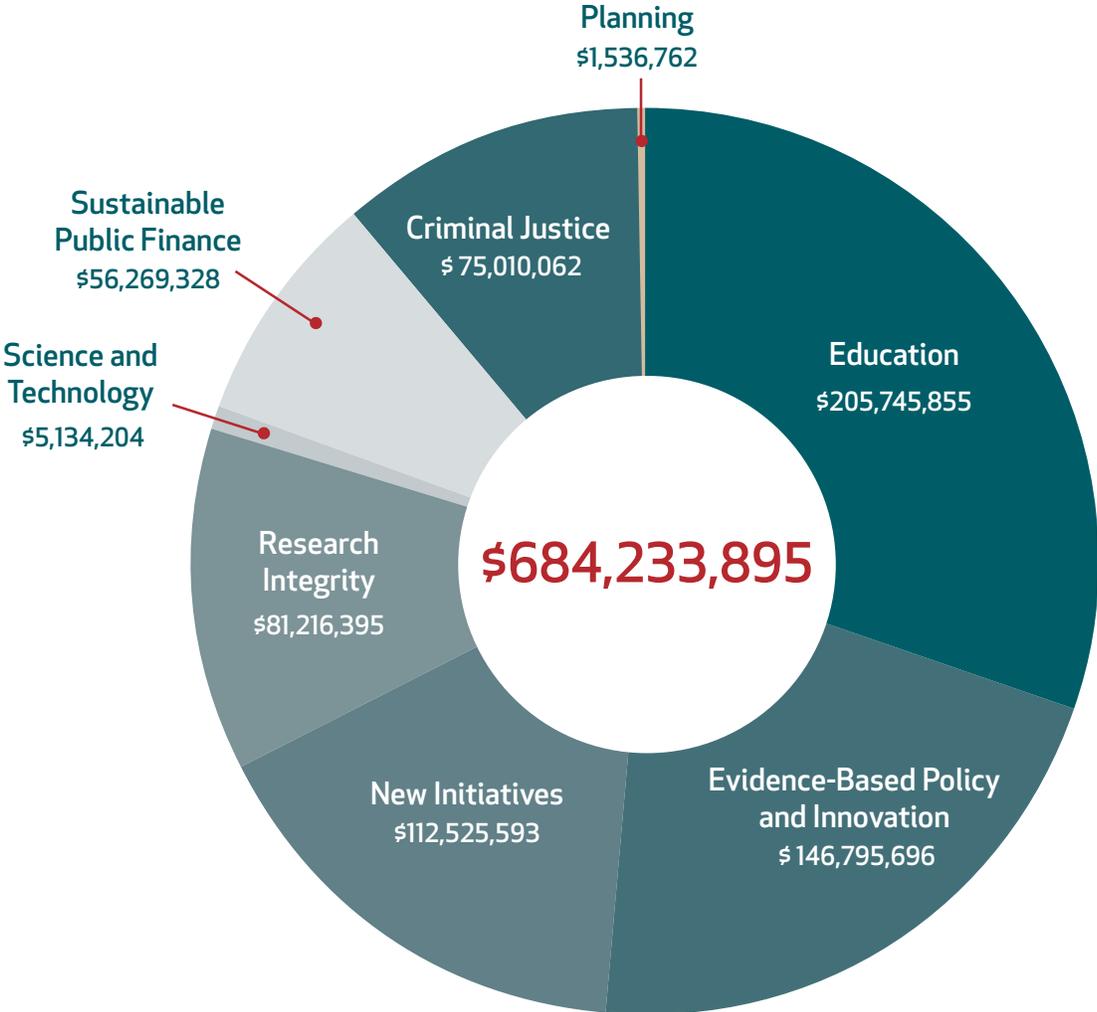
Another way that we invest in open science is by supporting partnerships between scientists and data and technology experts that are focused on developing technological advances to help drive progress across the sciences. In an effort to improve the accuracy of cancer screenings, for example, we provided funding for the Digital Mammography DREAM Challenge, which will award up to \$1.2 million to data scientists, researchers, and coding experts who develop predictive algorithms that can help to reduce human error and limit false positives associated with digital mammography. The competition is intended to reduce unwarranted procedures and medical costs, and to improve early detection for people with breast cancer.

Our work in this area also includes a grant to Harvard Medical School and Harvard Business School to support their efforts to design and conduct similar coding competitions focused on addressing other technological challenges in cancer research. In addition, we fund a partnership involving the Global Alzheimer's Platform, Medecision, PwC, and Amida Technology Solutions to develop software that will store patient information from hundreds of registries in a secure database. The database will allow researchers and hospitals to search directly for patients with cancer and Alzheimer's disease who meet the criteria to participate in research trials. The platform is intended to lower costs and accelerate participant recruitment.

# GRANTS

This page includes an overview of LJAF's grants awarded by programmatic area between Jan. 1, 2011 and Sept. 30, 2016.

A complete list is available on our website at [www.arnoldfoundation.org](http://www.arnoldfoundation.org).



P.O. Box 460809  
Houston, Texas 77056-8809  
(713) 554-1349  
[www.arnoldfoundation.org](http://www.arnoldfoundation.org)  
@LJA\_Foundation