

LEVER FOR CHANGE

A STUDY OF PRIZES AND COMPETITIONS

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“A Study of Prizes and Competitions” was written and researched by Yoon-Chan Kim for Lever for Change. Yoon-Chan Kim is an Innovation Advisor for USAID. He wrote and researched this report while working as a consultant for Lever for Change in 2021 after an earlier internship. Kim has an M.P.P. from Stanford University, an M.A. from Stanford University Graduate School of Education, and a B.A. in Politics and Music from Pomona College.

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About the report

Conducted over a ten-month span between 2020 and 2021, this study describes the world of prizes and competitions in philanthropy, as well as similar efforts in other industries, including national governments, international agencies, and the private sector.

The study identified more than 550 prizes and competitions with an aggregate purse prize of more than \$1 billion, analyzed more than 160 prizes and competitions from 2020, and interviewed more than 50 donors, senior executives, prize administrators, and researchers and consultants from multiple industries to achieve the following:ⁱ

- Describe the current landscape of prizes and competitions including the actors who fund and administer them;
- Identify common themes or practices across industries;
- Outline possible motivations for, benefits of, and reservations against, the use of prizes and competitions.

Because of the breadth of variations in prize design, the study did not define, prescribe, or list a set of best practices. Instead, it sought to outline broad themes based on the best available data.

Notes

Footnotes are denoted in Roman numerals (i, ii, iii...) and can be found at the bottom of each page. References are enumerated (1, 2, 3...) and can be found at the end of the report.

ⁱ See “Scope of study” for more information on data.

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Introduction

In the first six months of 2021, major organizations, companies, and luminaries announced prizes and competitions totaling more than \$100 million in prize money to tackle significant societal challenges. Examples of these include:

- Elon Musk’s \$100 Million Prize for Carbon Removal;¹
- The Royal Foundation of the Duke and Duchess of Cambridge’s Earthshot Prize, which began recruiting in early 2021 and will award five £1 million prizes per year over ten years;²
- The \$22 million Stronger Democracy Award, announced by Lever for Change and ICONIQ Impact.”;³ and
- Google.org’s Impact Challenge for Women and Girls, committing “\$25 million to fund organizations creating pathways to prosperity for women and girls.”⁴

Despite fervent debate in recent years on the merits of prizes and competitions, interest in them endures. While the historic COVID-19 global pandemic caused some prizes and competitions to pause, others launched because of it and the inequities it revealed.

Prizes and competitions continue to command the spotlight, and various high-profile actors continue to employ them in a variety of forms and toward different objectives. Understanding who sponsors prizes and competitions, how they administer them, and to what end may help explain the resilience of prizes and competitions, illuminate reasons for their sustained prevalence, and reveal their potential future.

History of prizes and competitions

Prizes and competitions have been prevalent throughout history. Earliest accounts of competitions in the West include the Olympics, but prizes were also awarded during theatrical festivals in ancient Greece.

The most prominent theater festival was the Great Dionysia dating back to sixth century Athens.⁵ As many as 16,000 Athenian citizens and visitors (all men) attended the festival to see newly submitted works by Euripides, Sophocles, and Aristophanes, among others.⁶ Judges were chosen by lottery, and winners sported their awards with great pride in what some believe to be the golden age of classical drama.⁷

More recently, prizes and competitions have become common across industries. The onset of reality television in the late 1990s augured in a wave of televised competition shows in the new millennium like *Survivor* (2000) and *American Idol* (2002 -).ⁱⁱ Today, prizes and competitions of some shape or form are hard to miss, even across different social arenas like schools, community centers, local associations, and companies.

Many of these prizes can be understood as those that award artistic works and achievements. In *The Economy of Prestige* (2005), author and scholar James F. English defines prizes that belong to literature and the arts as “cultural prizes”; they award the achievements of “cultural workers” including writers, architects, filmmakers, journalists, magicians, and fashion designers. Their prevalence and popularity can be reflected not only in the many televised award ceremonies, like the Academy Awards and Grammy Awards, but also the number of awards a single artist can win. Over the course of 33 years between 1970 and 2003, pop music icon Michael Jackson won 90 awards and received more than 150 nominations.⁸

Cultural prizes, however, have often been distinguished, at least theoretically, from another class of prizes known as incentive or inducement prizes.ⁱⁱⁱ (Academic and economic literature can identify this type of prize as an *ex-ante* prize as opposed to an *ex-post* prize.) Designed to motivate the achievement of a solution or the satisfaction of a specific goal, incentive or inducement prizes have enjoyed a history of their own.

In 1714, the British government enacted the Longitude Act, offering 20,000 pounds (an estimated two million dollars by today’s standards) to the person who could “find longitude within half a degree”—the equivalent to two minutes of time—to help its trade ships and sailors determine their positions at sea.⁹ While techniques to determine a ship’s latitudinal position using the sun had already been developed, those that determined longitudinal coordinates remained less reliable. The winning solution eventually came from the

ⁱⁱ Other examples of televised competitions at the turn of the new millennium include *Amazing Race* (2001-), *America’s Next Top Model* (2003 -), *Project Runway* (2004 -), and *Top Chef* (2006 -).

ⁱⁱⁱ Other terms have included “innovation prize” or “challenge prize.”

clockmaker John Harrison, though the government at first refused to award him the prize because he neither worked at sea nor was a formally educated scientist.¹⁰

Other early examples of incentive prizes include Napoleon Bonaparte's Food Preservation Prize which in 1795 tried to secure a better way to store food, with the more particular goal of supporting his military on their crusades.^{iv} Fourteen years later, Nicolas Francois Appert won 12,000 francs (equivalent to about \$36,000 today) for his food storage solution, which sealed boiled food in airtight champagne bottles.^{11,12} In 1869, Napoleon's nephew Napoleon III, who had by then crowned himself the second emperor of France, launched the Margarine Prize, eventually providing a patent to Mege-Mouries who invented a cheaper substitute for butter. In 1927, after crossing the Atlantic Ocean in one flight, Charles Lindbergh won the \$25,000 Orteig Prize, originally launched in 1919 as "a stimulus to courageous aviators."¹³

Today, incentive prizes are common across multiple industries including for-profit and non-governmental industries. Inspired by the Orteig Prize and first established in 1995, the Ansari X-Prize offered \$10 million to the first team that could "build a reliable, reusable, privately financed, manned spaceship capable of carrying three people to 100 kilometers above the Earth's surface twice within two weeks." It was awarded in 2004 when Mojave Aerospace Ventures launched SpaceShipOne into space, catapulting the modern private space industry.¹⁴ In 2006, Netflix launched the "Netflix Prize" to improve "the accuracy of predictions about how much someone is going to enjoy a movie based on their movie preferences," eventually awarding \$1 million to the team, BellKor's Pragmatic Chaos, three years later. The team's algorithm exceeded the contemporary standard by 10.06%.¹⁵

In the public sector, the Defense Advanced Research Projects Agency (DARPA) of the United States (U.S.) government has continued to employ incentive prizes to advance technological innovation. The DARPA Grand Challenge of 2004 hosted 15 autonomous vehicles to "foster the development of self-driving ground vehicles."¹⁶ While this first iteration did not award a winner, it helped fuel the second iteration of the competition in 2005 which the Stanford Racing Team won. DARPA awarded \$2 million to the Stanford team for successfully traversing 132 miles of desert terrain in the shortest amount of time.¹⁷ More recently, in October 2019, DARPA awarded GatorWings, a team from the University of Florida, \$2 million as the winner of the Spectrum Collaboration Challenge.¹⁸

Other agencies of the U.S. government have recently begun employing prizes and competitions. When President Barack Obama signed into law the America COMPETES Reauthorization Act of 2010 (also known as "America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act"), multiple federal agencies were empowered to use prizes and competitions to source solutions and stimulate innovation "from citizen solvers across the land."¹⁹ (A quick glance at the archives of

^{iv} Napoleon, whose rise coincided with the rise of 18th century Enlightenment ideals and a growing faith in science and technology, was said to have "volubly espoused the spirited role of entrepreneurs as engines of human progress."

Challenge.gov reveals an extraordinary number of competitions that federal agencies have hosted, and an interview with a federal official confirmed that more than 1,000 competitions have been administered in the past ten years.^{20,21)}

Prizes and competitions have also been used internationally. From 2014 to 2020, the European Union administered Horizon 2020 as a unified framework for innovation “aimed at securing Europe’s global competitiveness.”²² As the “biggest EU research and innovation programme ever with nearly €80 billion of funding,” the European Commission launched a suite of scientific prizes including the €3 million Materials for Clean Air Prize and a €1 million prize for better use of antibiotics.²³ On December 11, 2020, the European Union agreed to support Horizon Europe, a program that would succeed Horizon 2020 and advance the union's research and innovation plans from 2021 to 2027.^{24v}

Prizes and competitions have been prevalent throughout history. They have remained popular over time because they can be customized in countless ways and fit the needs of a variety of stakeholders including sponsors, participants, and the general public. In addition, prizes and competitions have been able to achieve a set of goals across industries and fields and will likely continue to be relied upon as a mechanism for a variety of different organizational, societal, and technological needs.

^v Horizon Europe plans to channel €95.5 billion for innovation in five areas: 1) adaptation to climate change including societal transformation; 2) cancer; 3) climate-neutral and smart cities; 4) healthy oceans, seas, coastal and inland waters; and 5) soil, health, and food.

Scope of study

An exhaustive study of prizes and competitions would be extremely difficult to conceive and design, much less execute. Even discounting lower profile prizes and competitions hosted at schools, by small businesses, within civil associations, or on the internet, an exhaustive list of prizes and competitions would have to consider all those that have expired from years past and track those that begin anew. Furthermore, the definition of a prize or competition continues to change according to time, culture, and purpose.^{vi}

This study thus assumed that any study of prizes and competitions cannot be exhaustive. Any study that purports to be would inevitably leave out a vast swath of prizes and competitions and thus be limited in scope by any number of dimensions. This study was no different. Given the ubiquity of prizes and competitions across time, cultures, industries, and form, this study focused on prizes and competitions with the following characteristics:

- Awards organizations, enterprises, and teams (as opposed to individuals);
- Holds a total prize purse (i.e., total cash value of the money given away) of at least \$10,000;^{vii}
- Is designed to incentivize, induce, or secure a solution or advancement toward a solution to a problem (i.e., incentive or inducement prize, or *ex-ante* prize).

The study aimed to analyze prizes and competitions that sought a solution or set of solutions. In contrast to prizes and competitions that recognize work that had been achieved (i.e., *ex-post* prize or “recognition” prize)^{viii}, prizes and competitions that sought a solution often defined a problem that required attention and needed to be addressed. The problem may have been technical, broad, specific to an organization, or endemic to communities around the world. Regardless of the scope of the problem, the study focused on prizes and competitions that sought solutions to a set of issues or challenges.

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It is worth noting that while the difference between an “incentive” prize and a “recognition” prize may be intuitive in theory, it is often more opaque in practice. Especially among prizes and competitions that award early-stage enterprises and judge based on criteria other than strictly technical requirements, many “incentive” prizes and competitions base their selection decisions in part on demonstrated impact or proven work. Like many early-stage investment decisions in the private sector, many “incentive” prizes and competitions—and particularly those aimed at

^{vi} A few interviewees commented on whether being accepted into a highly selective four-year higher education institution could be conceived as a type of “prize.”

^{vii} All dollar figures in the report are in U.S. dollars. When necessary, conversions have been made using the exchange rate from xe.com.

^{viii} Examples include the Nobel Prize, the Breakthrough Prize, or the MacArthur “Genius” Fellowships.

addressing an entrenched societal problem or issue—try to balance demonstrated impact and potential.

Literature on prizes and competitions note this phenomenon as well. A 2008 report from Knowledge Ecology International states that distinctions between ex-ante and ex-post prizes “are not black and white...in some cases, prizes are announced as rewards for achievements in a particular area, but the criteria for winning are not very specific.”²⁵

One interviewee spoke to the difficulty of selection decisions across a number of prizes and competitions he has helped design and deliver:

[Balancing funding something that has promise but is unproven versus something that has shown impact] is tough. It’s probably the biggest balance [we have to make] on deliberation calls. That’s the biggest question, and always the biggest struggle. I don’t know if we as a very niche industry of prize philanthropy need to get better at defining what we look for, because judges always, always, always have that question.²⁶

Other interviewees confirmed this sentiment, reflecting on the difficulties of selecting “winners” over “losers” when their efforts ultimately remained unproven or the problem ultimately unsolved. A couple of interviewees even said that for many prizes and competitions, the selected winner should matter less than the value the prize process itself offers its participants.

Challenges to decision-making are not unique to prizes and competitions. Last year, researchers from the business schools at Stanford University, Harvard University, University of Chicago, and the University of British Columbia published findings from a survey of 885 institutional venture capitalists (VCs) at 681 firms that revealed that “in selecting investments, VCs place the greatest importance on the management/founding team. Still, “some [VCs] focus more heavily on the management team while others focus more heavily on the business: the product, technology, and business model.” For example, “business factors are more important for late-stage investors than the team” and also more important for healthcare investors than information technology (IT) investors.²⁷

Selecting the winner(s) of a competitive prize or grant (or even a contract) differs from selecting an investment in which one will hold equity, and decision-making criteria and processes can also vary. Save for a few prizes and competitions where the criteria are highly specific and technical, the decision to select a winning set of participants ex-ante or ex-post (“incentive” or “recognition”) may be less binary for many prizes and competitions today than theory would suggest.

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Data

The study relied on the following sources of data:

- An original database of 580 prizes and competitions built from online research into websites of individual prizes and competitions, press releases and media posts, and archived historical webpages;^{ix}
- Academic and industry literature, including reports from philanthropic organizations, studies from for-profit companies, academic journals, blogs and media posts, and reports from government agencies and multilateral institutions;^x
- Interviews with more than 50 donors, senior executives, prize administrators, government officials, philanthropic and nonprofit leaders, and scholars and academics.^{xi} (See Appendix D.)

Limitations

The study limited the scope of study and did not include the following:

- “Cultural prizes” in literature and the arts;^{xii}
- Prizes in competitive sports or entertainment (i.e., reality television competition shows); and

^{ix} The original dataset included over 100 indicators. Because data were limited for most of these indicators, the study narrowed its scope to ensure a reasonable set of findings.

^x The study drew from a variety of academic and industry literature but does not contain, or purport to contain, an exhaustive literature review, historical analysis, or list of prizes and competitions.

^{xi} See following omissions section for stakeholders of prizes and competitions the study did not interview.

^{xii} Given the study’s focus on prizes and competitions designed to incentivize or advance progress toward solutions to a given problem, one could understand why cultural prizes may not fit into the study well. One can reasonably assume that a dearth of pianists who could play Rachmaninov’s second piano concerto may not be a problem that requires a solution. While plenty of artistic competitions set strict guidelines—and in the case of many musical competitions, require a specific repertoire to be prepared and performed—the competitions will judge less whether one can or cannot execute the repertoire (a la a highly technical incentive prize), but instead how beautifully or elegantly one performs (a la a recognition prize, since many people can be recognized for executing the repertoire). Such reasoning would extend to prizes and competitions in literature, film, and other fields in the arts.

There are, however, cultural and literary prizes that try to buck the trend. The Kingsley Tufts Poetry Award states, “Unlike many literary awards, which are coronations for a successful career or body of work, the Kingsley Tufts Poetry Award was created to both honor the poet and provide the resources that allow artists to continue working towards the pinnacle of their craft. ‘Because the award comes to you at mid-career, and is supposed to be a stepping stone and not a tombstone, it nerves you up to try to write up to the mark already set by the previous winners,’ said Tom Sleight, the 2008 recipient.”

- Prizes and awards without a monetary award at the conclusion of the competitive process.

The study also did not limit prizes and competitions from a particular sector or industry. Because of the variability in prize design and the importance of the competition process, the study tried to preserve opportunities for parallels across industry lines whenever possible.

Omissions and topics for further study

Due to limitations in scope, purpose, and capacity, the study omitted the following:

- The study did not distinguish unrestricted cash prizes (like lotteries) from legally restricted prizes (such as grants) for the following reasons:
 1. The information was hidden, difficult to find, or buried in legalese in the terms and conditions sections of prizes and competitions. In other cases, the information was made available only upon registration.
 2. Some prizes and competitions used the terms “prize” or “prize program” liberally without making explicit whether the award was restricted or unrestricted. Some prizes and competitions did not make clear that they would award unrestricted cash prizes.^{xiii}
 3. Interviews reflected the variety of interpretations of the definition of a “prize.” Some were adamant that a prize should *by definition* be an unrestricted cash award, while others were open to broader interpretations.

The study thus chose to accept prizes and competitions (or “challenges”) as they presented themselves.

- The study did not analyze linguistic differences between a “prize” and an “award” or a “competition” and a “challenge.” While the study reviewed terms and definitions it encountered frequently, it considered prizes and competitions broadly and included events known as “challenges, prize programs,” and other terms.^{xiv}
- The study did not interview prize applicants, finalists, or winners. The study assumed that prizes and competitions would not exist without those who sponsor, design, and launch them. Furthermore, the study wanted to better understand the motivations for the sustained persistence and prevalence of prizes and competitions and thus focused on interviewing those who could speak to their popularity. One could argue that prizes and competitions could also only exist if people participated and competed. The study accepts that prizes and competitions also depend on those who choose to

^{xiii} The study suspects that part of the obscurity is due to legal restrictions, to not alienate potential interested applicants and increase the number of possible winners, and to ensure a positive public image and make sure the prize programs are not perceived as pure lotteries.

^{xiv} For more terms, see “Terms and definitions.”

compete in them and recognizes the enormous promise of including interviews with prize participants, competitors, and winners in future studies.

The study acknowledges the potential for any one of the aforementioned limitations to itself become a separate study and would recommend such efforts for a deeper understanding of prizes and competitions.

Terms and definitions

Prizes and competitions used a variety of terms to describe different elements, including the name of the event, the award(s) given at the conclusion of the event, and the recipient(s) of the prize or award. Because definitions were not consistent across prizes and competitions, the study refrained from following a strict taxonomy. This report thus refers to “prizes and competitions” broadly and includes other competitive selection processes that may not be called “prizes” and “competitions” but that distribute economic awards to a select group of participants.

The “Prize”

Prizes and competitions described themselves as a “prize,” “competition,” or “challenge.” “Award” was most often used by recognition prizes that honored an individual for work that was already accomplished.

The following terms were also common to describe ex-ante prize programs:

- Incentive prize
- Inducement prize
- Innovation prize
- Challenge prize

Sometimes prizes and competitions combined various terms with the word “challenge,” as in “innovation challenge,” “challenge competition,” and “prize challenge.”

“Incentive prize”

An essay from a 2017 report entitled “Investing in Results” published by the Federal Reserve Bank of San Francisco and the Nonprofit Finance Fund defined **incentive prizes** as “different from post facto awards for accomplishments, such as the Nobel Prize and the Pulitzer Prize.” The essay suggests that the economic unit which is awarded at the conclusion “works as an incentive to motivate innovators to address a particular problem, usually one where the best solution or approach is unknown.”²⁸

“Inducement prize”

The United States National Academies of Science, Engineering and Medicine (The National Academies) and the Laboratory of Innovation Science at Harvard University (LISH) define

inducement prizes as those that “are designed to stimulate innovative activity, whether it be the creation of a desired technology, orienting research efforts toward designing products that are capable of being used at scale by customers or developing products with wide societal benefits.”²⁹

An article in *Stanford Social Innovation Review* from 2019 defined inducement prizes as those “designed to encourage individuals or teams to accomplish a specific goal that no one has achieved yet.”³⁰

“Innovation prize”

Stanford University researcher Heidi Williams cited Nobel Laureate Michael Kremer when referring to **innovation prizes** as “‘pull mechanisms’ that reward the successful development of specific products, as opposed to ‘push mechanisms’ that instead subsidize research inputs.”³¹ Scholars from the Massachusetts Institute of Technology, and the Cardozo School of Law referred to innovation prizes as those that “usefully incentivize innovation,”³² and a report from the IBM Center for the Business of Government published in 2011 stated that innovation prizes “are typically organized as competitions in which participants are asked to solve prespecified technological challenges or meet targets before a deadline.”³³

“Challenge prize”

Challenge Works (formerly Nesta Challenges), a part of Nesta which is an innovation foundation registered in England and Wales, defines **challenge prizes** as “competitions that offer a reward for the first or best solution to a problem.” They “attract the best innovators and incorporate elements from a range of innovation tools to provide them with the support they need to compete.”³⁴ Furthermore, they “offer a series of incentives, with a final prize given to whoever can first or most effectively meet a defined goal.”³⁵

Impact Canada, an initiative from the Government of Canada to “help [other government] departments accelerate the adoption of innovative funding approaches to deliver meaningful results to Canadians,” similarly defines a challenge prize as “an open innovation approach” aimed at accelerating “progress towards solving problems and achieving stronger social, environmental, and economic outcomes for citizens.”^{xv} Importantly, these challenge prizes “provide incentives (both financial and non-financial) to encourage a broad range of innovators to tackle problems where solutions are not apparent, or current responses are not achieving the desired results.”³⁶

Given the similarities across definitions for different types of prizes, and given their liberal use across competitions in multiple industries, the study will not abide by the aforementioned

^{xv} Organizational theorist Henry W. Chesbrough (now faculty at the Haas School of Business at University of California at Berkeley) first coined the phrase “open innovation” in his 2003 book *Open Innovation: The New Imperative for Creating and Profiting from Technology*.

taxonomy though it will mention it. The study will instead rely on its observations and findings.

The “Award”

Prizes and competitions mostly used “prize” and “award” to describe the economic benefits awarded to the winning teams at the conclusion of the event. When a prize or competition made clear that its award would be a grant, that which the winners received were called “grants” or “grant awards.”

The “Winners”

Those who won the competitive events were called “winners,” and “recipients,” while those who received competitive grants were called “grantees.” “Awardees,” “award winners,” and “laureates” were used most often by “recognition” prizes and those that awarded individuals as opposed to teams or organizations.

Framework

The study found three dimensions to organize the landscape of prizes and competitions:

- i. Sector of primary funder (i.e., who sponsors the prize or competition);
- ii. Administration method of prize (i.e., who administers the prize or competition);
- iii. “Sourcing” or “Deal flow” mechanism (i.e., channels used to secure proposals).

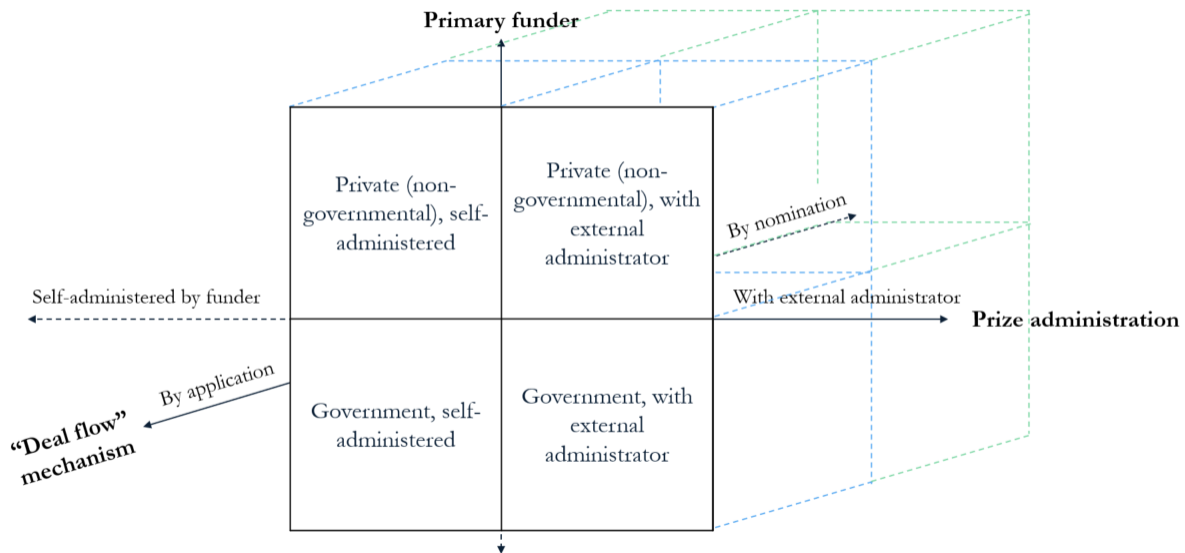


Figure 1: Three primary dimensions used to organize prizes and competitions: the x-axis represents the method of intake of potential awardees (i.e., “sourcing” or “deal flow” mechanism); the y-axis represents the prize administration method; and the z-axis represents the sector of primary funder.

These three dimensions were defined clearly and regularly by almost all prizes and competitions. They were also bifurcated: prizes and competitions had either a governmental or non-governmental primary funder; were either self-administered by the funder or administered by an external organization; and either accepted applications or nominations.

i. Sector of primary funder (i.e., who sponsors the prize or competition)

The first dimension—the sector of the primary funder or sponsor, defined as the entity whose capital provides the total prize purse—was most easily bifurcated into governmental or non-governmental (or “private”). Non-governmental funders included nonprofit entities such as private foundations and universities as well as for-profit corporate entities. Government funders included national government agencies as well as multilateral organizations, and there were select instances of regional- or county- or state-level government funders.

The study considered other industry segmentations, including separating for-profit entities from nonprofits, but found such segmentation more opaque and requiring greater subjectivity.^{xvi}

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Many large for-profit companies have private foundations with nonprofit status holding substantial amounts of assets derived almost exclusively from its for-profit arm. While not all prizes and competitions are sponsored by the nonprofit entity (Cisco Global Problem Solver Challenge is an initiative of Cisco Systems, Inc., rather than the Cisco Foundation), others are administered by the nonprofit arm (Aetna Foundation's Healthiest Cities and Counties Challenge is an initiative of Aetna's nonprofit arm).

In some instances, an initiative that may seem entirely not-for-profit in fact is hosted by a for-profit entity. (The Impact Challenges by Google.org is an initiative of Google LLC., the funds for which come from the Tides Foundation which holds its donor-advised funds. Similarly, the Chan-Zuckerberg Initiative, CZI, functions as a limited liability corporation LLC but remains dedicated to philanthropic efforts.)^{xvii}

Interviews with executives and senior leaders at multiple foundations including corporate arms have revealed the close link between the for-profit entities and their nonprofit foundation arms. As academic scholars and theorists including Brown and Marwell (2019) have noted, "scholars increasingly find that sectoral functions and purviews are quite variable, depending largely on political structure, issue area, geography, and other factors."³⁷

The study thus aimed to distinguish instead between prizes and competitions that are sponsored strictly by a government agency and those sponsored by a non-governmental entity. Additional layers of distinctions have been included but their meaning has been obscured due to the aforementioned challenges.

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Single sponsor

Many prizes and competitions across both governmental and non-governmental industries are funded by a single sponsor:

- Cisco Systems, Inc. sponsored the **Cisco Global Problem Solver Challenge**, which awarded \$1 million in prizes to "recognize new business ideas that leverage technology for social impact from early-stage entrepreneurs around the world." It

^{xvi} Because organizations in the United States bearing a 501(C)(3) status are eligible for tax exemptions, one could argue that prizes and competitions sponsored by nonprofit entities can be a public-sector funder.

^{xvii} Many academic scholars and organizational theorists including Ghatak (2019), Mair (2019), W. Powell (2019) and Horvath (2019) have noted the common practice different organizations take to blur lines between their legal forms and the sectors in which they exist.

included awards offered by different branches of the company: Cisco’s Emerging Technologies and Incubation Group offered the \$50,000 Ethical AI Prize, while the Employee Resource Organizations group offered the Historically Black Colleges and Universities (HBCU) Startup Prize.³⁸

- The Conrad N. Hilton Foundation exclusively sponsors the \$2.5 million **Conrad N. Hilton Humanitarian Prize**, which is “the world’s largest annual humanitarian award presented to nonprofit organizations judged to have made extraordinary contributions toward alleviating human suffering.”³⁹
- The Robert Wood Johnson Foundation administers the **Culture of Health Prize** which “honors and elevates U.S. communities working at the forefront of advancing health, opportunity, and equity for all.” Winners receive a \$25,000 prize and “opportunities to share their story and lessons learned with the country.”⁴⁰

When a prize or competition had a single sponsor, the “primary” funder was easy to identify. When multiple sponsors funded the prize, the primary funder was usually identified as the founding, leading, or primary funder, with others contributing smaller monetary sums or non-monetary resources after the initiative had been launched.

Multiple sponsors

Some prizes and competitions are funded by multiple sponsors:

- The **Equality Can’t Wait Challenge**—awarding \$40 million to “help expand women’s power and influence in the United States by 2030” and administered by Lever for Change—is funded primarily by Pivotal Ventures, Melinda Gates’ investment and incubation company, with additional contributions from MacKenzie Scott and the Lynn Schusterman Family Philanthropies;⁴¹
- The **Extreme Tech Challenge** (“XTC Competition”), a nonprofit organization founded by Samsung Electronics Corporate President and Chief Strategy Officer Young Sohn along with venture capitalist Bill Tai, hosts numerous “partners”^{xviii} including the University of California system, Microsoft, Intel, Hyundai, and Tech Crunch;⁴²
- The **Stanford Center on Longevity Design Challenge** lists three tiers of sponsors—Platinum (Target, Honda, and Finance of America), Gold (P&G), and Silver (Eskaton);⁴³
- The **Global Cooling Prize**, initiated by Richard Branson and the government of India in 2018 to help develop “residential cooling solution that will have at least five times less climate impact than standard units in the market today,” lists at least ten sponsors including multiple philanthropies.^{xix,44}

^{xviii} Various prizes and competitions use the terms “partner” and “partnership” differently.

^{xix} The Prize Governance page of the Global Cooling Prize website outlines different types of partnerships. Membership on the Supervisory Board “will be made up of individuals or organizations who have provided funding commitments of at least US\$250,000” while Outreach partners “will consist of reputable organizations and institutions that will lend their brand credibility to the Prize, support global awareness and outreach in

The prospect of pooling capital and providing opportunities for new partnerships—for potential beneficiaries as well as for the sponsors themselves—may be as enticing as it could be advantageous. Interviews revealed that a prize or competition can often be used as a means for the sponsor to strengthen its network by building alliances with other potential sponsors.

ii. Prize administration method (i.e., who administers the prize or competition)

Funding a competition is not synonymous with administering it. While many funders chose to administer their prizes and competitions on their own, others chose to partner with, or pay, an external organization to design and deliver the prize.

The second dimension that defined who ultimately administered the prize was also bifurcated by prizes and competitions that were administered by the funder (i.e., self-administered) and those that were administered by third-party organizations that helped design and deliver the prize or competition (i.e., an external administrator). Examples include Lever for Change; Nesta; MIT Solve, an initiative of the Massachusetts Institute of Technology; the XPRIZE Foundation, Inc.; Skild; and InnoCentive.

Internal administrators (i.e., self-administered)

Internal administrators belonged to the sponsor or funder of the prize or competition. When the organization had the capacity, a single department would oversee the administration of a prize. Sometimes, one department would sponsor the prize, but a separate department would deliver it. (For example, Impact Canada helps execute prizes and competitions for other agencies in the government of Canada but is also itself an agency of the Canadian government.⁴⁵) If the organization was small, the administration of a prize was the responsibility of a small team that oversaw any other number of duties. In all cases when the sponsor and administrator belonged to the same organization, the study considered the sponsor as the administrator of the prize.^{xx}

External administrators

External administrators were not directly affiliated with the sponsor or funder of the prize or competition. They were instead hired by the sponsor or funder to help design and deliver the

specific markets, and join the larger coalition that is determined to solve the global cooling challenge through innovation.”

^{xx} Rarely did the team or department responsible for administering the prize become a stand-alone entity, but there are examples: Lever for Change, a John D. and Catherine T. MacArthur Foundation affiliate, received its 501(c)(3) status in 2019, and the Royal Foundation of the Duke and Duchess of Sussex has planned to make the Earthshot Prize a stand-alone entity.

prize or competition.^{xxi} Administrators may have either worked closely with the sponsor to design the process or been entrusted to administer the event as they deemed fit. They provided a range of services for the sponsor, including announcing the prize, soliciting applications, helping select the finalists, and hosting the final award ceremony.^{xxii}

External administration organizations were either nonprofit or for-profit with different mission statements and clientele. The XPRIZE Foundation, Inc., for example, is dedicated to the administration of prizes that foster breakthrough technologies,⁴⁶ while InnoCentive (recently acquired by Wazoku) provides crowdsource solutions for organizations facing “important technology, science, business, A/I and data challenges.”⁴⁷ (See Appendix E for a list of administration organizations.)^{xxiii}

Occasionally, a single prize or competition employed multiple external administrators, each providing a different service. In other instances, a single sponsor funded multiple prizes or competitions, each with a different external administrator.

iii. “Sourcing” or “Deal flow” mechanism (i.e., channels used to secure proposals)

The third dimension that was consistently identifiable was the method of application intake, or the “sourcing” or “deal flow” mechanism. Prizes and competitions evaluated for this study either exclusively accepted nominations or exclusively accepted applications; rarely did a single prize or competition accept both applications and nominations.^{xxiv}

^{xxi} The degree of responsibilities of an external administrator can in fact vary. The services included in the administration of a prize can range from providing the online platform through which application forms can be received and managed to marketing, gathering external judges, and even organizing final in-person events and announcement ceremonies. This study defined external administrators as those that helped do more than simply provide a technical platform and provide services that may have included but not been limited to marketing, judging, and hosting of final events, delivering other services.

^{xxii} Although the study did not research the contracts between those who sponsor competitions and those who administer them (when they were distinct), interviews revealed that the entities that sponsor competitions are also those that pay for their administration.

^{xxiii} Interestingly, universities seem to be popular hosts for prizes and competitions. Natural settings of intellectualism and diverse thought, universities host a variety of design, startup, and coding competitions as well as competitions that serve companies and organizations. The most notable may be MIT Solve, an initiative of the executive office of the Massachusetts Institute of Technology. While it is not an independent organization, it has helped administer custom competitions for the likes of the World Bank Group and Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the United Arab Emirates. While few other universities have designed challenges exclusively for outside funders—seeking more often instead to gain sponsorship for competitions they already have—universities generally seem to be natural hosts for events featuring multiple concepts aimed at tackling social and technical problems.

^{xxiv} Nominations refer to outside nominations, or nominations from outside the awarding organization.

Some prizes and competitions accepted neither outside nominations nor applications. They presumably relied almost exclusively on nominations and recommendations driven by their network. Because additional information on such events was exceedingly hard to come by, such competitive selection processes were excluded from the study.

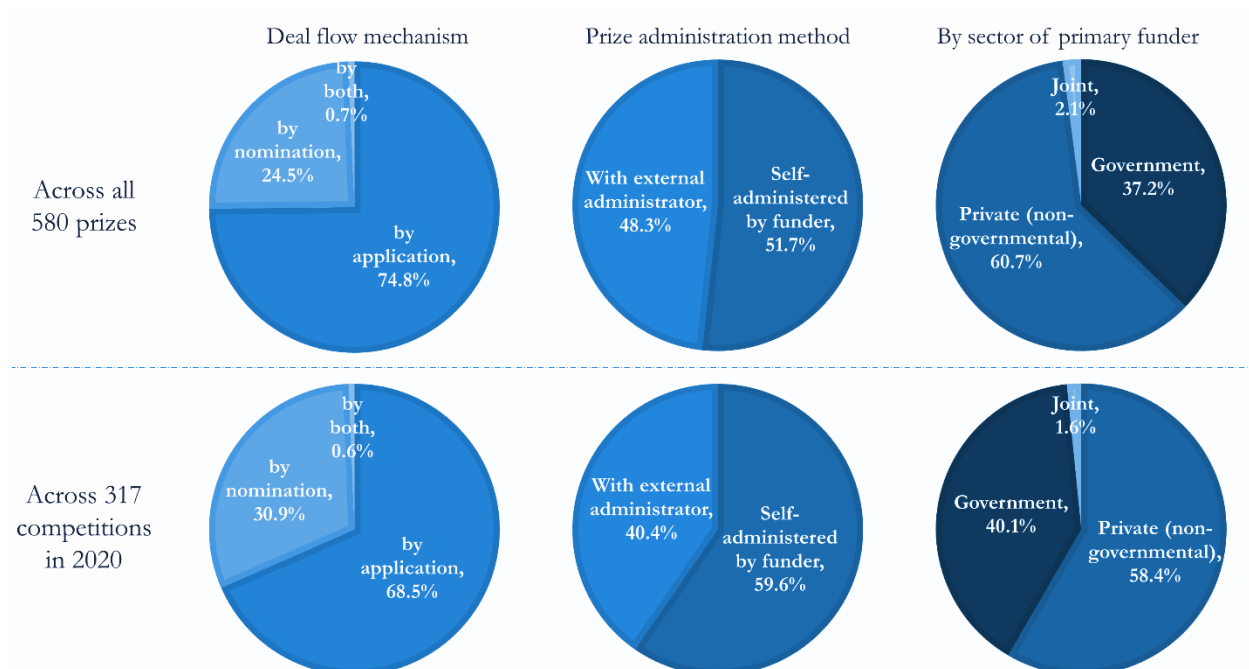


Figure 2: Prizes and competitions broken down by the three organizing dimensions: “deal flow” mechanism (application or nomination), prize administration method (with an external administrator or self-administered by the funder), and sector of primary funder (governmental or private i.e., non-governmental, or rarely jointly funded across private and governmental sectors).

On the exclusion of nomination-based prizes and competitions

This study relied on two of the three dimensions to organize and understand the landscape of prizes and competitions: sector of primary funder (i.e., governmental or “private”/non-governmental), and method of prize administration (i.e., administered with external administrator or self-administered). In addition to the fact that this study is primarily interested in application-based prizes and competitions, the third dimension of the “sourcing” or “deal flow” mechanism” was excluded for the following reasons:^{xxv}

- Nomination-based prizes and competitions often lack publicly available information on criteria, judging and selection processes, selectivity, and even award amounts;
- Prizes and competitions based on applications seem to target potential applicants and awardees, while those based on nominations seem to target a different audience;

^{xxv} “Deal flow” is a term borrowed from the venture capital industry. Prizes and competitive grants do not use the same term but the importance of sourcing potential competitors for prizes and competitions is a critical component to the delivery of a prize or competition.

the way these prizes and competitions structure incentives, therefore, seems to differ significantly;

- Nomination-based prizes and competitions seem closely linked to recognition (i.e., ex-post) prizes, awarding winners on the basis of work already accomplished rather than to incentivize further progress or advancement toward the production of a solution.

Other dimensions considered

Additional dimensions that could organize the landscape of prizes and competitions were less identifiable or consistent:

- Legal tax status of sponsoring organization:
 - Sectoral boundaries were found to be less meaningful;
 - Could limit meaningful learnings and comparisons across industries (Google LLC and Impact Challenges; Cisco and Impact Canada);
 - Could obfuscate “philanthropic” versus non-philanthropic prize events; Aetna/CVS holds competitions as a foundation, while the Extreme Tech Challenge holds competitions as a nonprofit even though it has been a project of private equity and venture capital firms.
- Total prize purse size (amount of dollars):
 - The total prize purse proved less reliable as an organizing dimension for the following reasons:
 - Data analysis and interviews confirmed that not only can sponsorships change for a single prize or competition, but the total prize purse amount can as well, even from one year to the next;
 - Sometimes the total prize purse changed in the middle of a single competition. In other instances, the decisions [on the award amounts] were not made until the conclusion of the prize process or were made as the prize or competition evolved. Sometimes, a prize was announced with a minimum total prize purse (i.e., “at least” or “up to”) but without having determined a total prize amount;
 - Comparisons across dollar-amounts may limit meaningful insights into prize design, best practices, and incentive structures. (For example, the Hilton Humanitarian Prize and the Economic Opportunity Challenge both offer multi-million dollar awards, but the former is based on nominations while the latter is based on applications, differing fundamentally in design and structure.)
- A longitudinal view of prizes and competitions:
 - A longitudinal view could illuminate how the landscape of prizes and competitions changed over time.

- A particularly important year in recent memory is 2010, when U.S. President Barack Obama signed the America COMPETES Act to empower federal agencies to use prizes and competitions to promote innovation for the American people. Beyond such a year, however, choosing to organize the landscape of prizes and competitions by the year they launched seemed potentially less insightful given:
 - The limited information on prizes and competitions that no longer exist,
 - The recent growth of prizes and competitions over the past twenty years, and
 - The fact that the year a prize launched has seemed independent of its process, practice, and ultimate success.

1. The landscape of prizes and competitions is large and diverse.

Prizes and competitions cut across industries, are sponsored by a variety of entities, and exhibit different features toward diverse ends.

1.1 Application-based competitions have grown over the years.

1.1.1 The number of application-based competitions have increased dramatically over the last ten years.

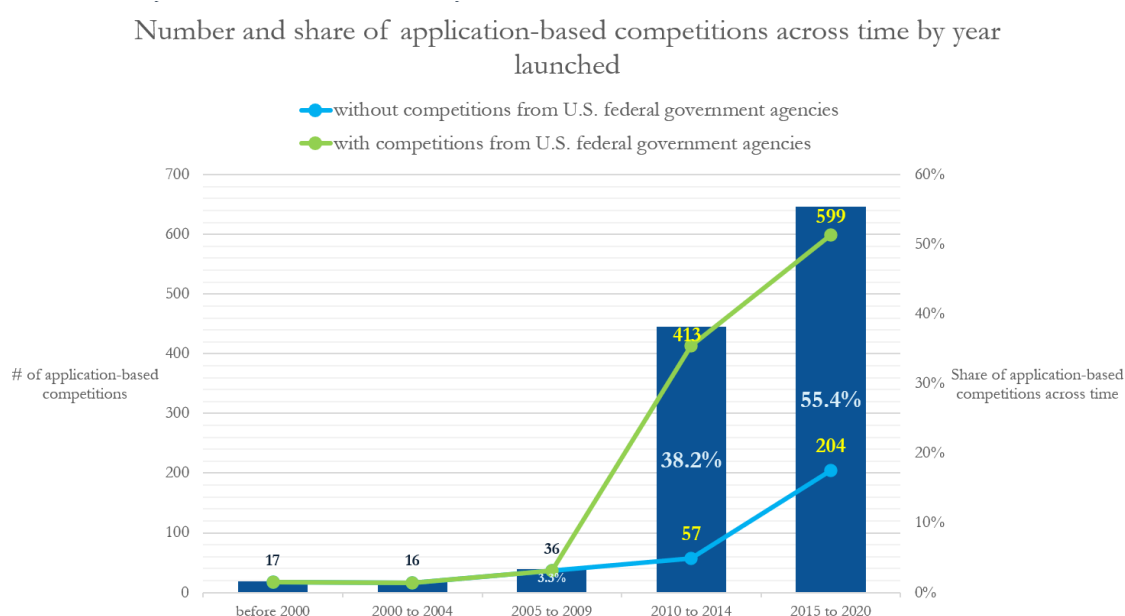


Figure 3: Number of application-based competitions evaluated (left-hand y-axis) and share of application-based competitions identified (right-hand y-axis) across time (x-axis, by the year the competition launched)

Figure 3 shows two types of information: the number of application-based competitions across time with and without those sponsored by federal agencies from the United States government (green and blue lines, respectively), and the share of application-based competitions in the dataset across time (vertical bars).

The number of application-based competitions rose dramatically over the past ten years. Even without the addition of prizes and competitions sponsored by United States federal

agencies beginning in the year 2010, the prevalence of application-based prizes and competitions increased.^{xxvi}

Reasons for the growth may include highly publicized prize events in the 2000s such as the Ansari X-Prize (awarded in 2005), the Netflix Prize (awarded in 2009), and the Virgin Earth Challenge (launched in 2007 but ultimately not awarded).^{48,49,50} Federal agencies using prizes and competitions may have fueled this interest even further, and competitive philanthropic programs such as the Gates Grand Challenges (launched in 2003) and the Skoll Awards (first awarded in 2005) may have added to the uptake of prizes and competitive programs across philanthropy.^{51,52,xxvii}

1.1.2 Application-based competitions seem to have a smaller likelihood of being sustained over time than nomination-based competitions.

Even though these nomination-based prizes and competitions are not the primary focus of this study, the study was able to identify more than a hundred nomination-based competitions. Comparing the longevity of nomination-based prizes and competitions with that of application-based prizes and competitions revealed a contrast in the likelihood of a prize or competition being repeated in the years following its launch:

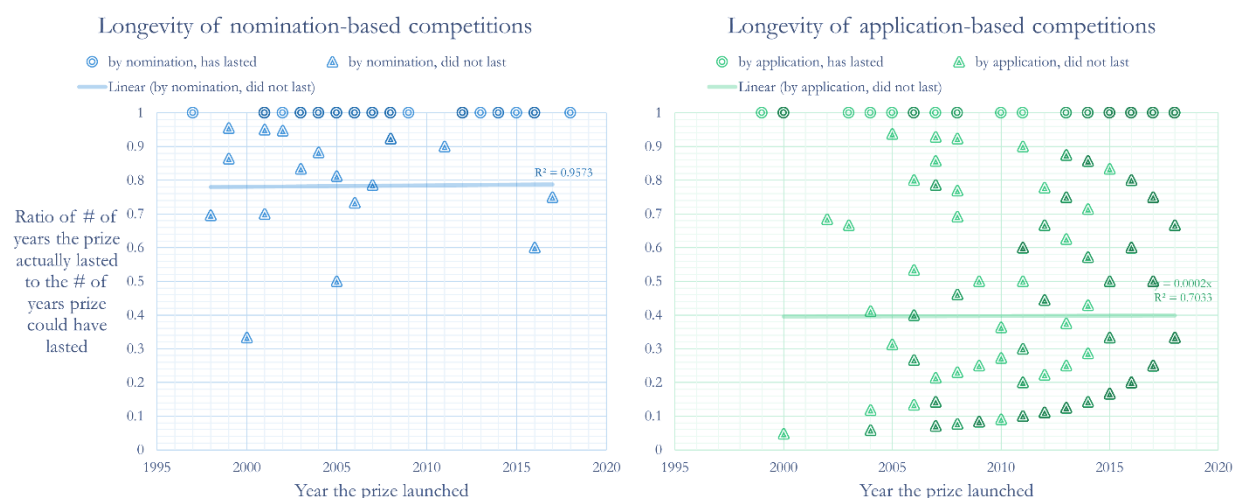


Figure 4: Comparison of the sustainability of nomination-based competitions versus that of application-based competitions, where longevity (y-axis) is measured as the ratio of the number of years the competition actually lasted to the number of years the prize could have lasted, plotted along the year the competition launched (x-axis). Circles represent competitions that still existed as of 2020, and triangles represent competitions that no longer exist. For example, a competition that began in 2000 and still exists today would be shown as a circle at

^{xxvi} Growth among nomination-based prizes and competitions is not captured, and the dataset relies on prizes and competitions that have been identified.

^{xxvii} The 2000s began to observe heightened visibility of tech entrepreneurs in philanthropic activities: the Skoll Foundation launched in 1999; the Bill and Melinda Gates Foundation was formally organized in 2000; the Ansari X-Prize was named in honor of the tech entrepreneurs Amir and Anousheh Ansari, who were the primary sponsors of the prize.

the top of each chart with a longevity measure of 1 (lasting 20 years out of a possible 20), while a competition that launched in 2005 and ended in 2010 would be shown as a triangle, with a longevity measure of 0.33 (lasting five of a possible 15 years).

More often than not, nomination-based prizes and competitions seem to have lasted longer than application-based competitions. Estimates suggests that nomination-based prizes and competitions that did not last (red triangles in figure 4) lasted about 80% of the number of years they could have lasted (longevity measure of 0.8), while application-based prizes and competitions that did not last (blue triangles in figure 4) lasted about half as long, at 40% of the number of years they could have lasted (longevity measure of 0.4).

While the finding may be related in part to the recent rise in application-based prizes and competitions, the differences may also attest to differences in purpose between nomination-based prizes and competitions and those based on applications:

- Nomination-based prizes and competitions were often ex-post, or “recognition” prizes, offering awards based on accomplishments the applicants had already achieved. Most application-based prizes and competitions, however, were designed to incentivize or inspire the solution to a problem, even without the guarantee of accomplishing it;
- Many application-based prizes and competitions concluded once the solution had been reached or the award had been given, thus obviating additional prizes or competitions to address the same issue. Not surprisingly, many application-based prizes and competitions that have lasted for multiple years have defined the problems for which they seek solutions very broadly. Some application-based prizes and competitions, including those hosted by the XPRIZE Foundation, Inc., have sought specific solutions to technical problems, but once the solution was found or delivered, the prize concluded and did not repeat.

To be sure, differences in longevity across prizes and competitions speak only to their longevity and not necessarily to that of the sponsors. While they can be related, a single sponsor can sponsor multiple competitions over many years, never repeating the same competition. Examples include DARPA and the XPRIZE Foundation, Inc., as well as the suite of challenges the John S. and James L. Knight Foundation ran in the early 2010s.⁵³

Despite the historic nature of the year 2020, prizes and competitions persisted through the year and, in some cases, launched specifically to respond to the COVID-19 global pandemic, revelations about ongoing social injustices in America and the world, and contestations over democratic institutions.

The figures and findings that follow are based on more than 150 application-based prizes and competitions of at least \$10,000 that were active in 2020. (“Active” includes being launched, administered, or concluded within in the 2020 calendar year.)

1.1.2 Most application-based competitions from 2020 had a total prize purse of less than \$5 million.

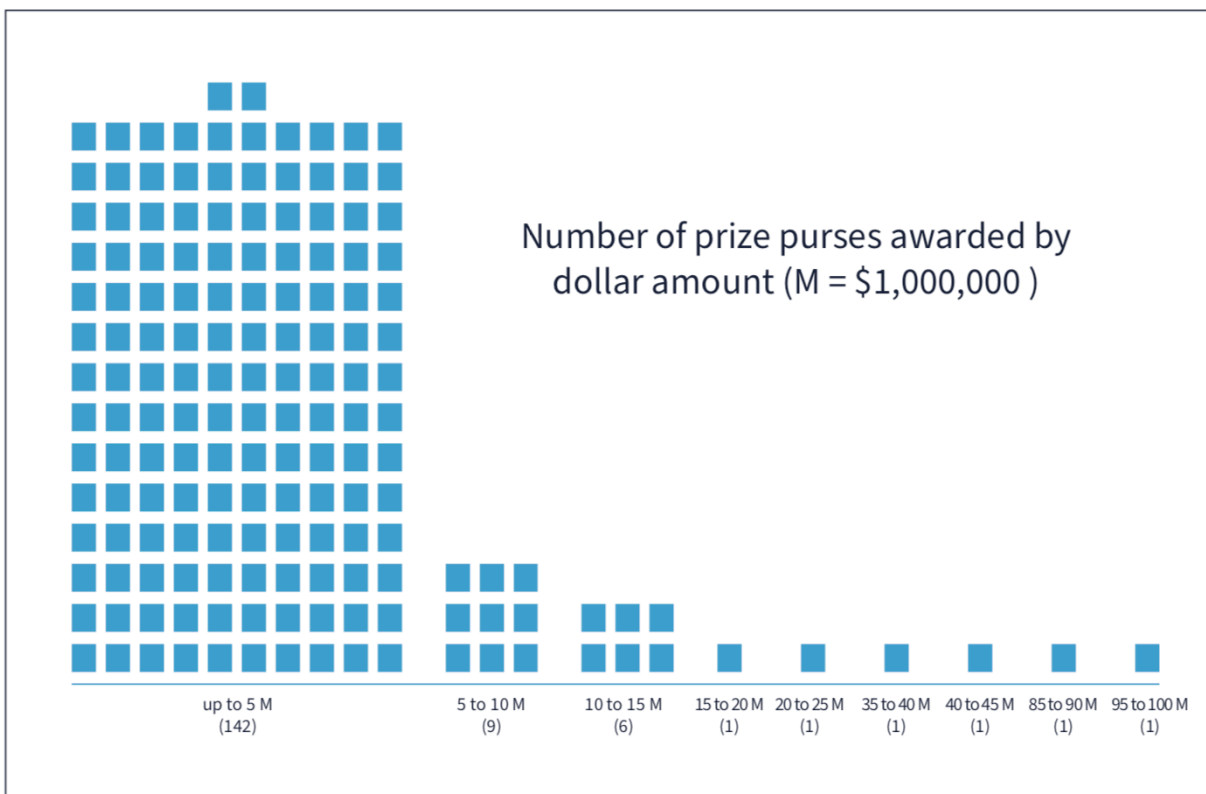


Figure 5: Histogram of the 163 application-based competitions that were active in the year 2020. The majority of prizes and competitions had a total prize purse of less than US \$5 million.

A distribution of the application-based prizes from 2020 showed that the overwhelming majority of prizes and competitions (142 of 163, or about 87%) had a total prize purse of less than \$5 million (in USD). Skewed by the MacArthur Foundation's second *100&Change* competition whose \$100 million in total prize purse remained an outlier, the average total prize purse was about \$3.6 million. Both the median and the mode of the total prize purse were found to be a little under \$1 million (\$800,000), with the 25th and 75th percentiles at \$100,000 and \$2 million, respectively.

1.2 Competitions are funded and administered differently by different sponsors.

1.2.1 Majority of spending on prizes and competitions came from private funders.

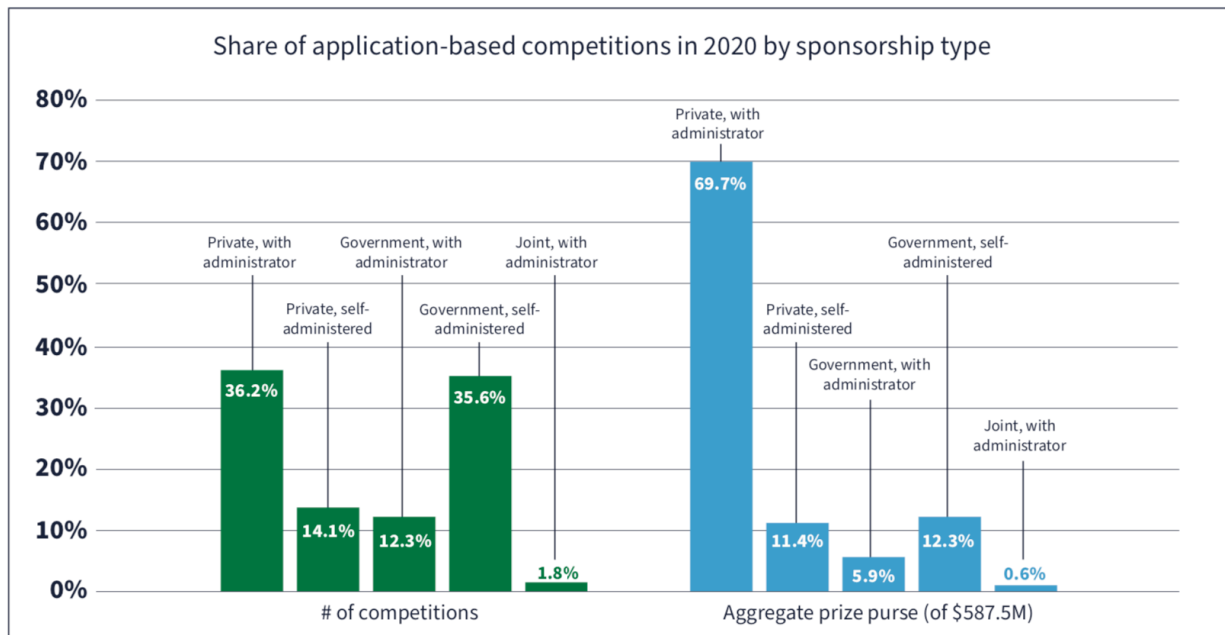


Figure 6: Share of application-based competitions by the number of competitions (left-hand side); share of application-based competitions by share of aggregate prize purse (right-hand side). Private (i.e., non-governmental) sponsors provided the overwhelming capital for prizes and competitions.

While governmental entities and private (i.e., non-governmental) entities may have used prizes and competitions with similar frequency (Figure 6, left-hand side), the amount of dollars spent on prizes and competitions differed, with the vast majority (81.1%) of the dollars being spent by private sponsors.

1.2.2 Private funders who used external administrators spent the most on prizes and competitions by share of aggregate purse size.

Share of application-based competitions in 2020 by sector of primary funder and administration type

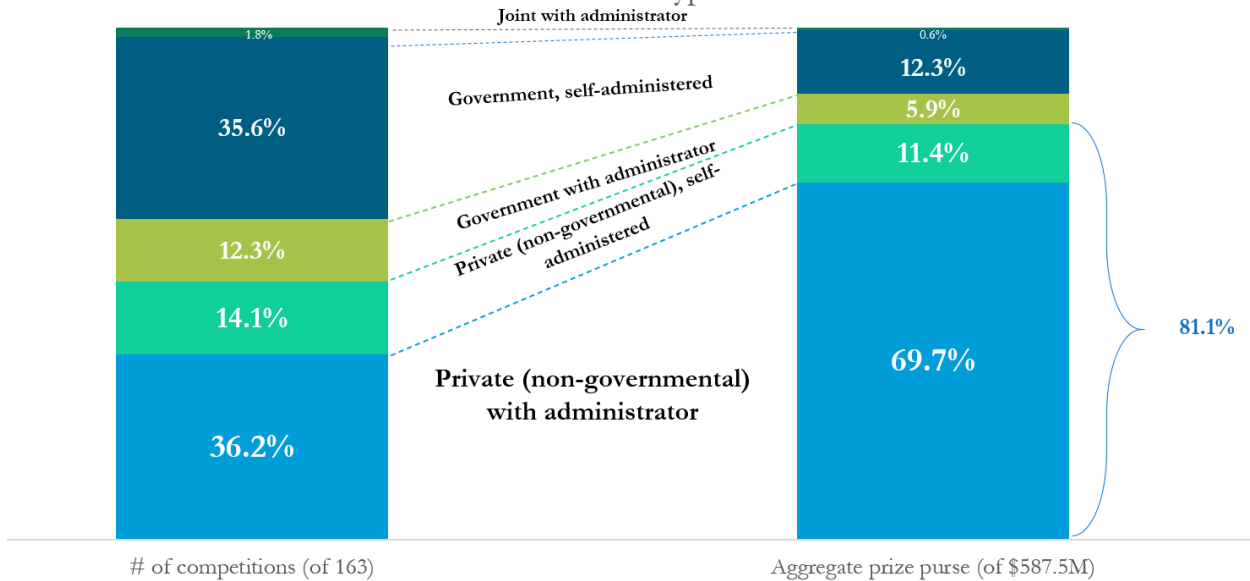


Figure 7: Share of application-based competitions in 2020 by sector of primary funder and administration method. The dotted lines show the relationship between the share of the number of competitions and the share of the aggregate prize for a given type of primary funder and administration method.

Private sponsors with external administrators executed as many prizes and competitions as government sponsors that administered prizes and competitions themselves (Figure 7, left-hand side). Yet, private sponsors with external administrators spent nearly 70% of aggregate spending on prizes and competitions (as measured by total prize purse), while total government spending on prizes and competitions composed less than 20% in spending.

The discrepancy may be due in part to not only the size and flexibility of a sponsor's budget or the regulatory regimes governing the sponsor's use of prizes, but also different degrees of control and oversight. Prizes and competitions run and managed by the government may require greater oversight from government officials themselves and may be limited in the degree to which they can partner with external administrators, while non-governmental organizations may have enough flexibility to partner with, and pay, an external organization to administer the prize.

An interview with an executive director of a private foundation captured the promise of working with an external administrator:

[The external administrator] has a great reputation. It helps that it's not just us doing this [work of administering a prize]. Because we're a small organization, it saves us money.⁵⁴

1.2.3 Most government funders administered prizes and competitions themselves rather than using external administrators.

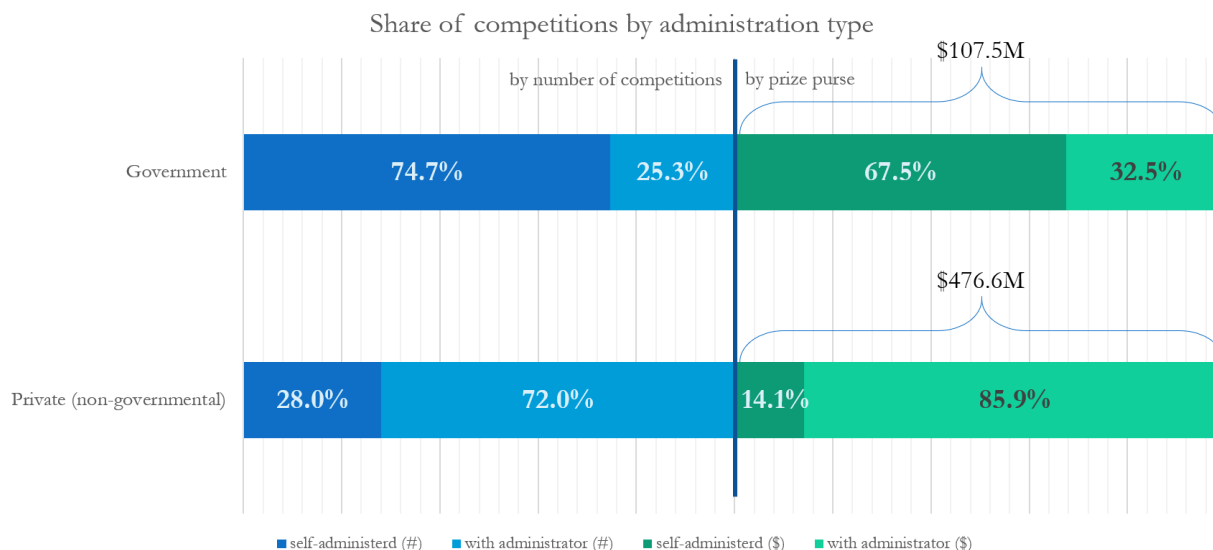


Figure 8: Differences in the share of the number of competitions and aggregate prize purse by sector of primary funder and the prize administration method. Government funders tended to administer prizes and competitions themselves whether measured by the number of competitions (74.7% on the left side of the vertical bar) or by the aggregate prize purse (67.5% on the right side of the vertical bar).

Government funders tended to administer prizes and competitions by themselves. They additionally spent more dollars on prize purses in competitions they administered themselves than those with an external administrator.^{xxviii} In contrast, most private (i.e., non-governmental) funders utilized external administrators to execute prizes and competitions. They also spent more on total prize purses with administrators than they did without.

Regulatory guidelines and budget cycles may both play a role, though some government agencies have partnered with external administrators. (One interviewee who led an external administration organization was excited to share that his company had recently been accepted into the federal list of regular contractors, increasing the likelihood of winning contract bids to deliver prize programs for government agencies.⁵⁵)

^{xxviii} The study did not include the contract amounts paid to external administrators to carry out the administration and delivery of a prize or competition.

Another possible reason for the difference may be capacity; federal agencies such as the Department of Energy not only sponsor prizes and competitions that require a high degree of technical knowledge and skill, but also have the built-in technical expertise to evaluate and judge submissions. Private funders may not have such in-house technical expertise.

1.3. Most competition prize purses address *community and economic development, science, and health*.^{xxix}

1.3.1 *Community and economic development, science, and health* receive the greatest amounts of the aggregate prize purse.

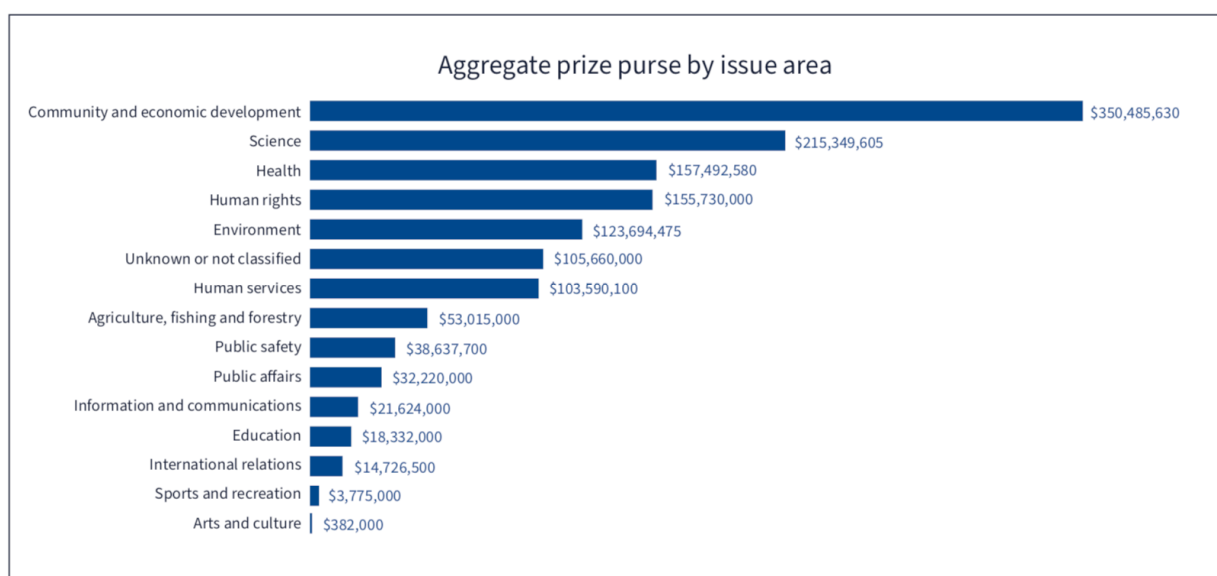


Figure 9: Aggregate prize purse of 163 prizes and competitions from 2020 by issue area.

Issue areas that received the greatest amount of aggregate prize purse were *community and economic development, science, and health*. Those that received the least amount of aggregate prize funding were *arts and culture, sports and recreation, and international relations*. *Philanthropy* and *religion* were entirely unrepresented.

Because issue areas are broad and rarely mutually exclusive, and because a single prize or competition can address multiple issue areas, the study listed up to three issue areas best represented by a given prize or competition. (For example, the Andan Prize for Innovation in Refugee Inclusion represented the issue areas of *human rights, science, and community and economic development*.)

^{xxix} Taxonomy of the issue areas (“community and economic development”; “science”; “health”) is based on the philanthropy classification system from Candid. The study used only the first-order taxonomy to ensure clarity and minimize subjectivity.

1.3.2. Human rights and unknown or unclassified commanded the highest average total prize purse.

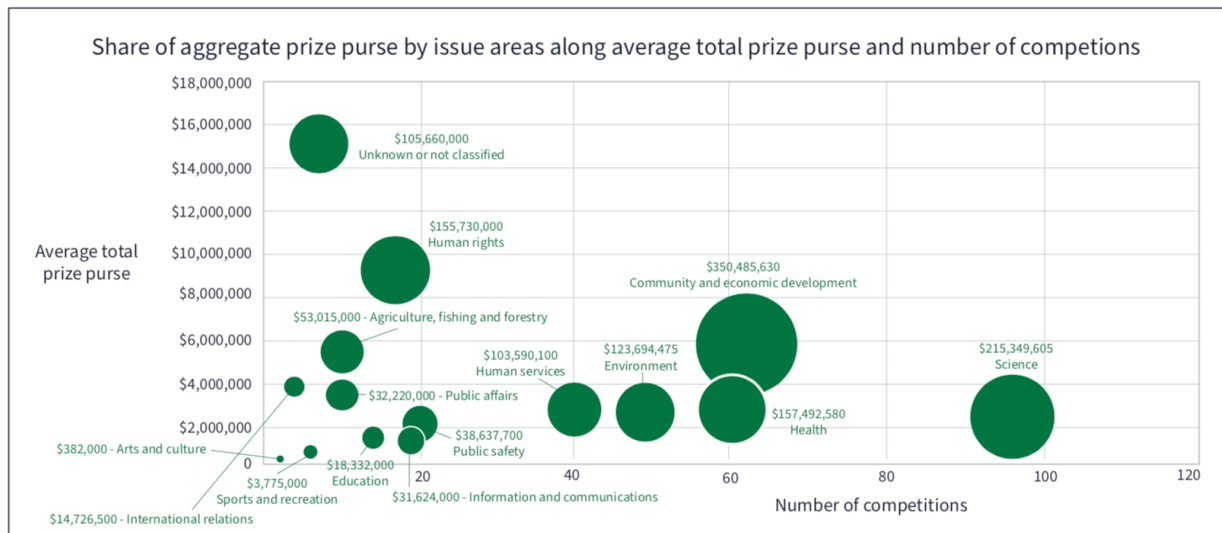


Figure 10: Issue areas by number of competitions (x-axis), average total prize purse (y-axis), and size of aggregate prize purse (size of each circle representing the amount of dollars spent measured by aggregate prize purse). The dollar amounts labeled next to each circle represent the average total prize purse (y-axis).

Although *community and economic development*, *science*, and *health* have the highest number of competitions representing them, *unknown or not classified* and *human rights* show greatest average total prize purse amounts. The high average of *unknown or not classified* is largely due to *100&Change*, the \$100 million competition administered by Lever for Change and sponsored by the MacArthur Foundation. The issue areas with the smallest number of competitions and lowest average total prize purse amounts were *arts and culture*, *sports and recreation*, and *education*.^{xxx} Entirely unrepresented are *philanthropy* and *religion*.

^{xxx} Performance-based competitions sponsored by performing arts organizations or other arts organizations dominate prizes and competitions in arts and culture. The case is similar in the for-profit entertainment industry. Sports and recreation prizes and competitions remain largely the purview of for-profit entities such as the National Basketball Association and Major League Baseball. While there are prizes and competitions in those fields designed to incentivize solutions to a problem (such as the Helmet Challenge of the National Football League and the Play Everywhere Design Challenge sponsored by the Ralph C. Wilson Jr. Foundation), such prizes and competitions tend to be underrepresented.

1.3.3 Community and economic development, science, and health are the top issue areas across different ranges of total prize purse.

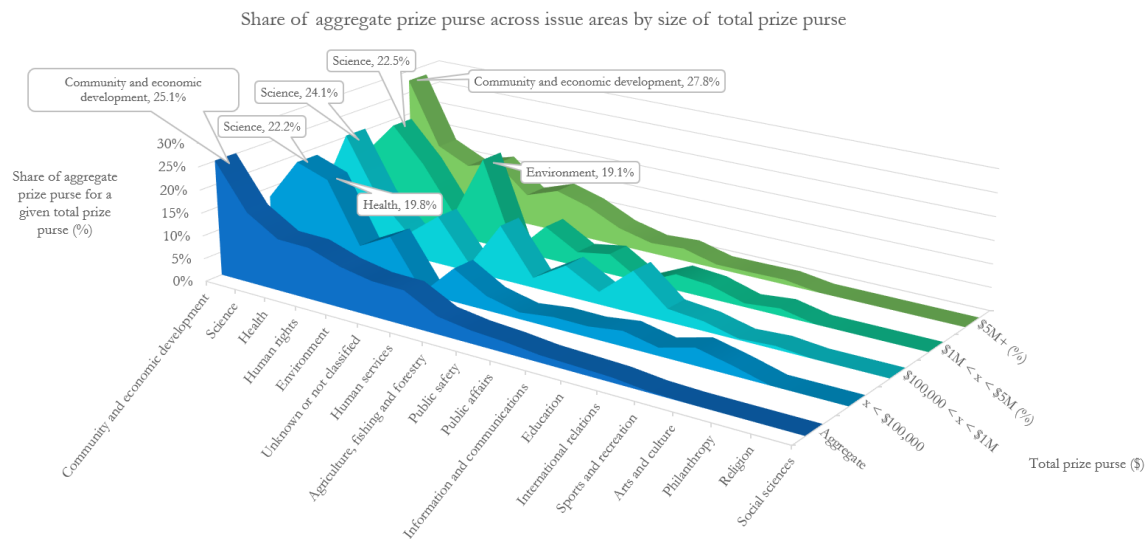


Figure 11: Share of aggregate prize purse (z-axis) across issue areas (x-axis) by size of the total prize purse (y-axis). For example, prizes and competitions with a total prize purse between \$1 million and \$5 million spend 22.5% of their aggregated prize purse on science and 19.1% on environment.

Across different ranges of total prize purse, community and economic development, science, and health continue to receive the greatest shares of the aggregate prize purse and remain most represented. Among prizes and competitions with total prizes purses between \$100,000 and \$5 million, environment also receives a great deal of prize purse shares. The issue areas of philanthropy and religion remain unrepresented across different ranges of total prize purse.

The finding suggests that prizes and competitions tend to prioritize certain issue areas independently of the awarding amount or the total prize purse. That *community and economic development, science, and health* remain consistently represented across different ranges of total prize purse may signal a fit between the issue areas and the use of prizes and competitions, the preferences of the sponsors of prizes and competitions, or the limitations of executing prizes and competitions for other issue areas.

1.3.4 Community and economic development, science, and health are represented across different funder and administration types.

Top 5 issue areas across different funder and administration types

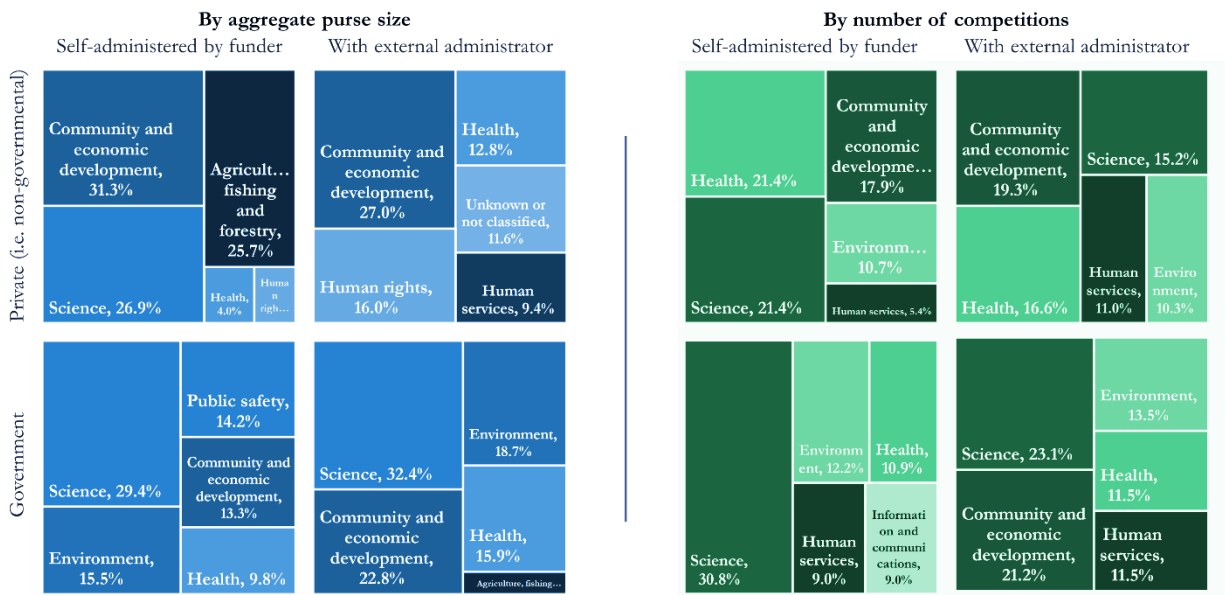


Figure 12: Top 5 issue areas across different funder and administration types by aggregate purse size (left side) and by number of competitions (right side).

When the study segmented prizes and competitions across different types of sponsors and prize administration methods by issue area, *community and economic development*, *science*, and *health* remained the most represented, both by aggregate prize purse size and by the number of competitions sponsored.

By aggregate prize purse, *community and economic development* and *health* were most represented. By number of competitions, *community and economic development*, *science*, *health*, *environment*, *human services* were represented in nearly all segments. (*Agriculture, fishing, and forestry* among private funders who self-administer the prize was born from a few agriculture-oriented prizes with multi-million-dollar total prize purses.)

1.3.5 Science and health are most consistently represented in the top five issue areas across different total prize purse sizes.

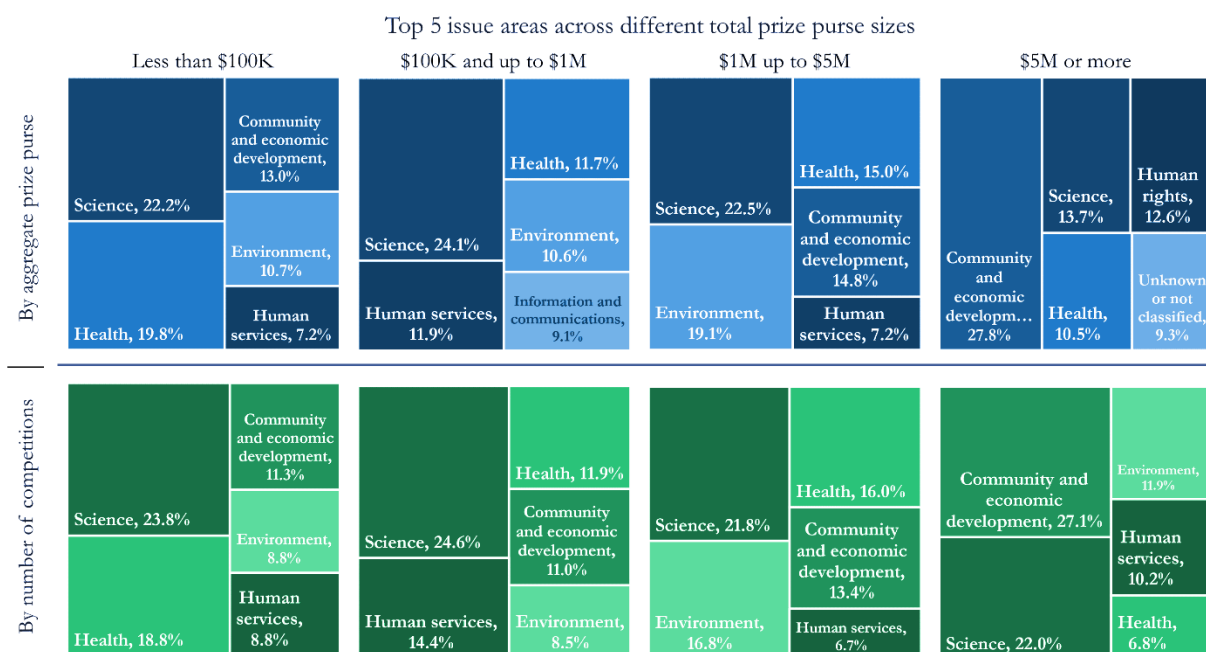


Figure 13: Top 5 issue areas across different total prize purse amounts by aggregate prize purse (top row) and by number of competitions (bottom row).

When the study segmented prizes and competitions by different ranges of the total prize purse, it found little deviation from earlier findings; *science*, *health*, and *community and economic development* continued to take the greatest shares of the aggregated prize purse.

Human services and *environment* were also consistently represented across different prize amounts, both by the number of dollars spent (i.e., aggregate prize purse, or top row of Figure 13) and by the number of competitions (bottom row of Figure 13). (*Information and communications* in the top row of Figure 13 was born from several government prizes between \$100,000 and \$1 million that promoted scientific technologies intended to boost innovation in information technologies.)

2. Competitions share similarities in design.

The study analyzed the structure of a prize or competition based on available data, including how prizes and competitions presented themselves to attract applicants, the criteria they said they used to judge proposals, and how they chose to select the winners.^{xxxi}

2.1 Competitions present themselves in terms of “innovation” and “solution.”

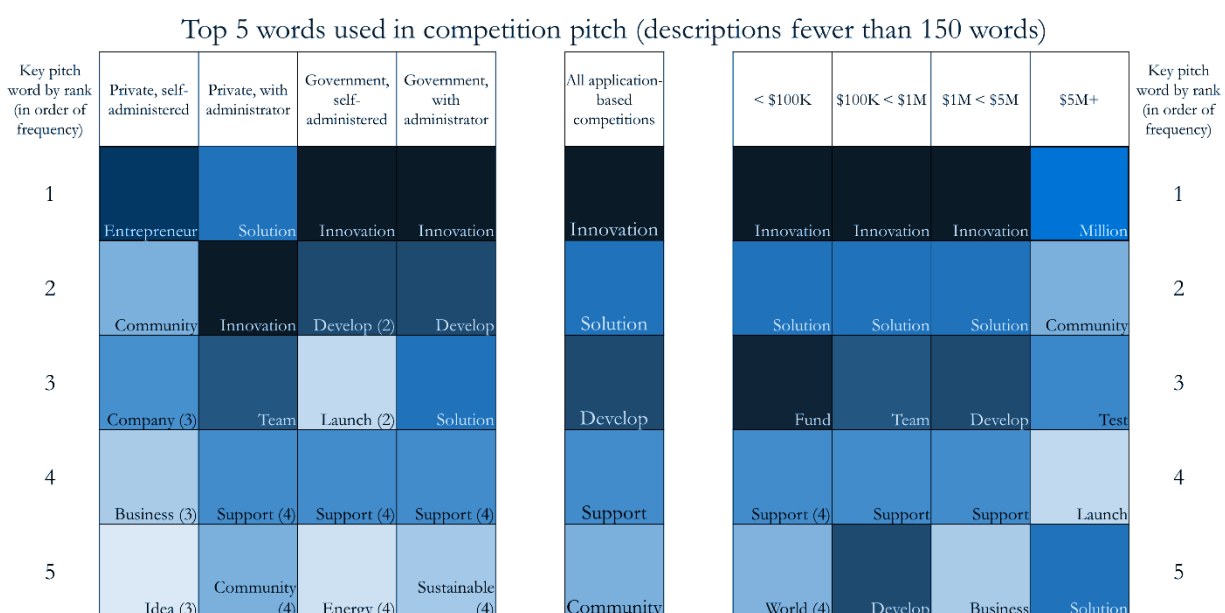


Figure 14: Key words prizes and competitions use to describe themselves in their “pitch” descriptions (i.e., 150 words or fewer). Center column shows key pitch words in order of frequency among application-based competitions in 2020; left-hand side shows key words used across different prize sponsors and administration methods; right-hand side shows key words used across different ranges of total prize purse

Prizes and competitions across almost any segmentation relied on “innovation” and “solution” to describe themselves. Many prizes and competitions may not only seek “innovative solutions” but also present themselves as innovative or oriented in solutions. The descriptions highlight the importance of addressing a defined problem in a novel way.

2.2. Most competitions look for “impact.”

^{xxxi} Given the frequent changes prizes and competitions often make, even in the midst of their delivery, the following analysis was based on application-based prizes and competitions from 2020. The study refrained from analyzing elements of prize design for which it could not secure enough data.

2.2.1 “Impact” and “innovation” are the most common key criteria across different prize administration types; “Solution” is the most common key word used to describe those criteria.

Key criteria and their descriptors ranked by frequency across different funders and administration methods

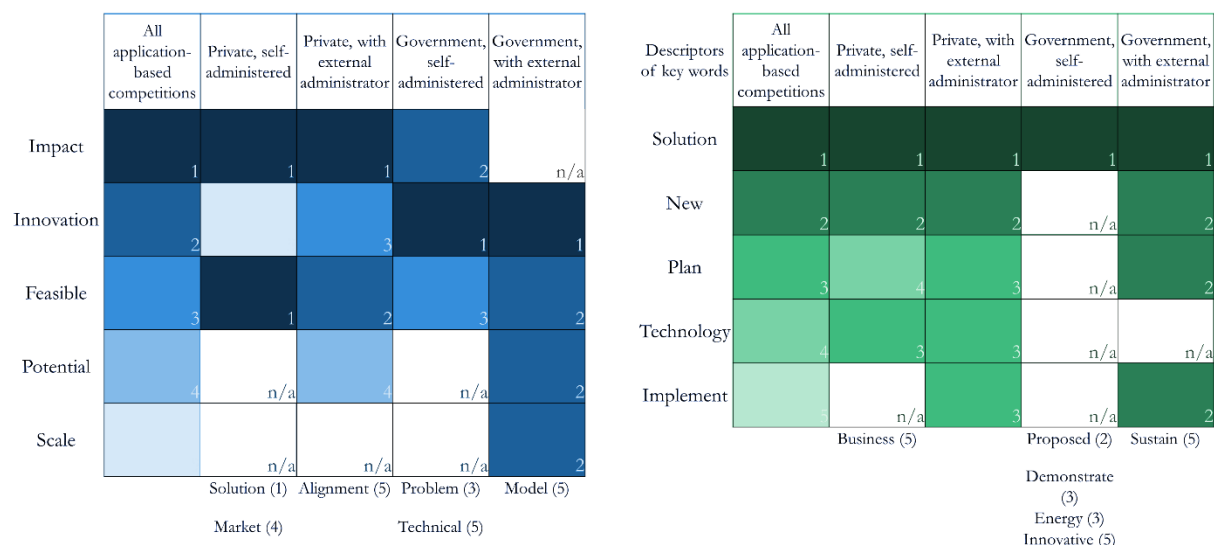


Figure 15: Key criteria (left-hand side) and their descriptors (right-hand side) across different funders and administration methods. Numbers show the ranking of the key criterion for a given type of funder and prize administration method. Rankings are based on frequency.

Almost all application-based prizes and competitions shared their judging criteria. Even technical prizes and competitions often had criteria beyond specific targets the participants had to meet.^{xxxii}

The most common key criteria across application-based prizes and competitions from 2020 were “impact,” “innovation,” “feasible” (or feasibility), “potential,” and “scale” (or “Scalability”). While the ranking of key criteria varied slightly across different types of prize sponsors and administration methods, “impact” and “innovation” were found with the greatest consistency.

When prizes and competitions further described those key criteria, the words “solution” and “new” most frequently appeared across different funder types and prize administration methods.

^{xxxii} Prizes and competitions with a single “criterion” were rare, but extant. The clearest example may be the Millennium Prize Problems hosted by the Clay Mathematics Institute, which will award \$1 million to the solution of each of seven unsolved mathematical problems.

2.2.2 “Impact” is the most common key criteria across different amounts of total prize purse; “Solution” and “new” are the most common words used to describe the criteria

Key criteria and their descriptors ranked by frequency across different ranges of total prize purse

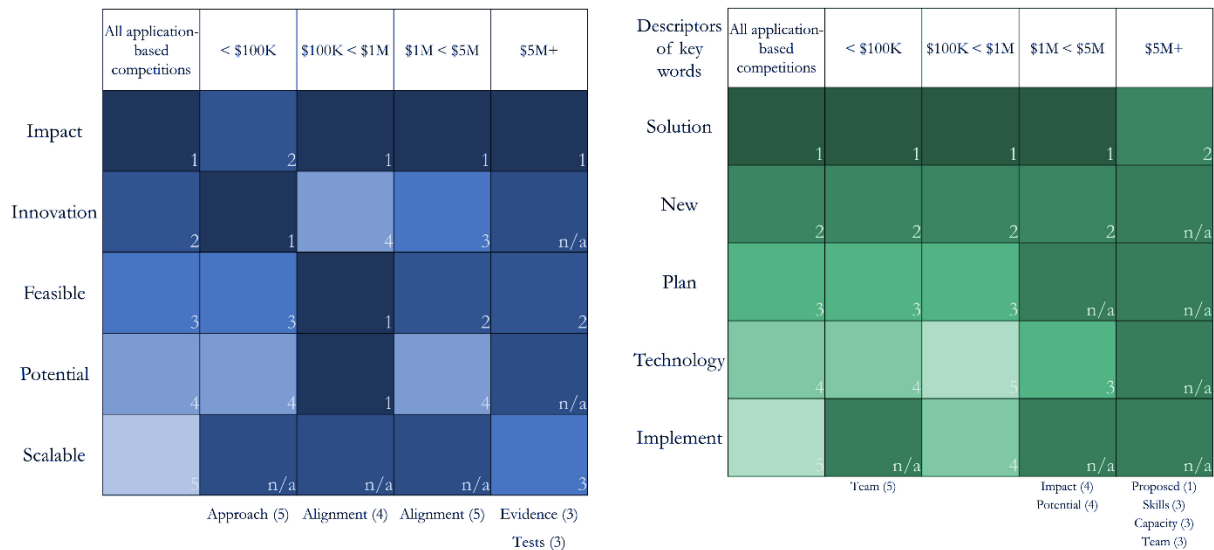


Figure 16: Key criteria (left-hand side) and their descriptors (right-hand side) used to evaluate applications across different ranges of total prize purse. Numbers show the rank of the key criterion for a given range of total prize purse. Rankings are based on frequency.

When the study segmented key criteria used by different ranges of total prize purse, “impact” and “innovation” again rose to the top. Descriptions of said criteria relied on “solution” and “new” across almost all ranges of the total prize purse. Prizes and competitions whose total prize purse exceeded \$5 million were the exception.

2.3. Most competitions do not award the total prize purse to a single winner.

2.3.1 Each prize winner receives on average about a third of the total prize purse.

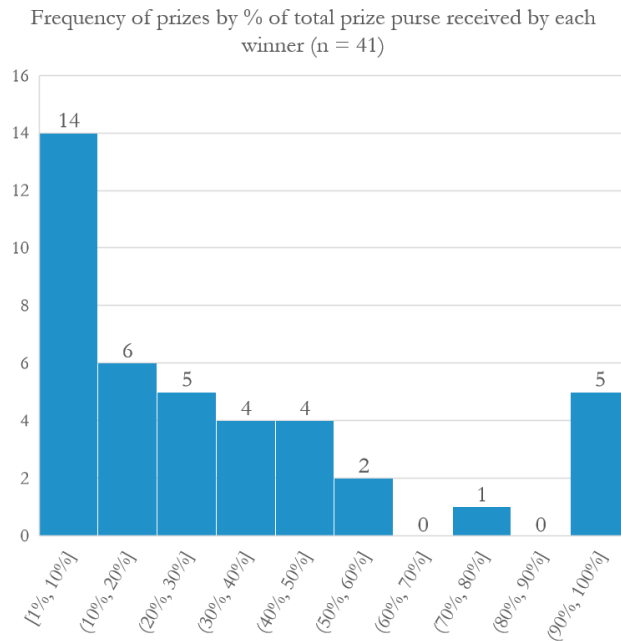


Figure 17: Histogram of the frequency of prizes and competitions from 2020 (y-axis) by percentage of total prize purse received by each winner (x-axis). Most prizes and competitions awarded their winners less than 50% of their total prize purse.

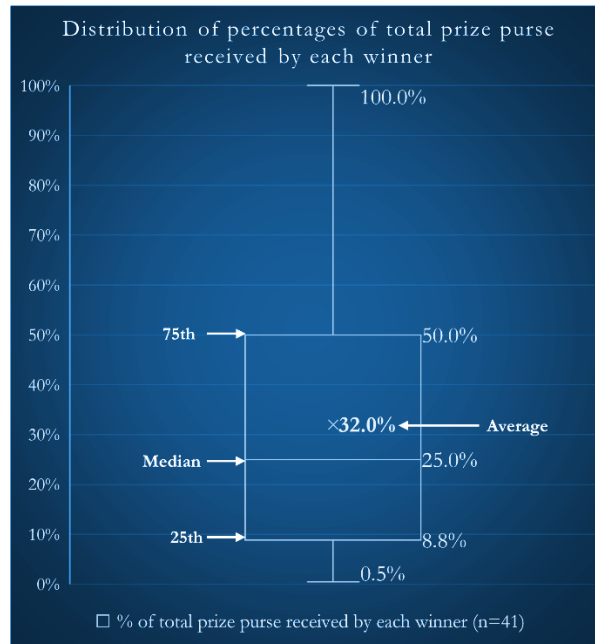


Figure 18: This boxplot shows that on average, prizes and competitions awarded 32% of the total prize purse to each of the winners. The 25th and 75th percentiles of the distribution of percentages were found to be about 10% and 50% (i.e., 10% and 50% of the total prize purse).

When prizes and competitions ultimately award their winners, they rarely give away their total prize purse. In fact, most awarded their winners less than half of the total prize purse; on average, winners of prizes and competitions took away a third of the total prize purse. Many prizes and competitions allocated what was left in one of three ways:

- Additional awards to ranked finalists (i.e., second- or third-place winner, named award, “People’s Choice” Award);
- Equal awards to a class of semi-finalists and/or finalists (before awarding the winners); or
- Capacity support in the penultimate or final round to help applicants strengthen or develop their ideas, proposals, or prototypes.

Some prizes and competitions employed all three aforementioned methods, while others distributed the total prize purse equally among a large number of winning teams. Several prizes and competitions adopted a “cohort” model where multiple winners were selected as a “cohort” or class.

2.3.2 The minimum possible award size a single participant can receive is on average less than 10% of the total prize purse.

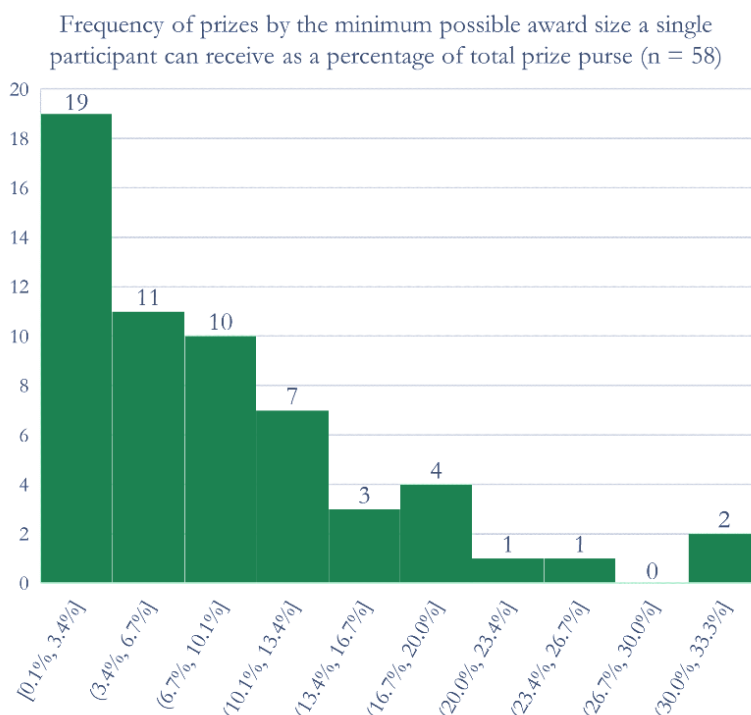


Figure 19: Histogram of the frequency of prizes and competitions from 2020 (y-axis) by percentage of total prize purse received by non-winning participants (x-axis). Most prizes and competitions awarded less than 10% of their total prize purse to participants who did not ultimately win.

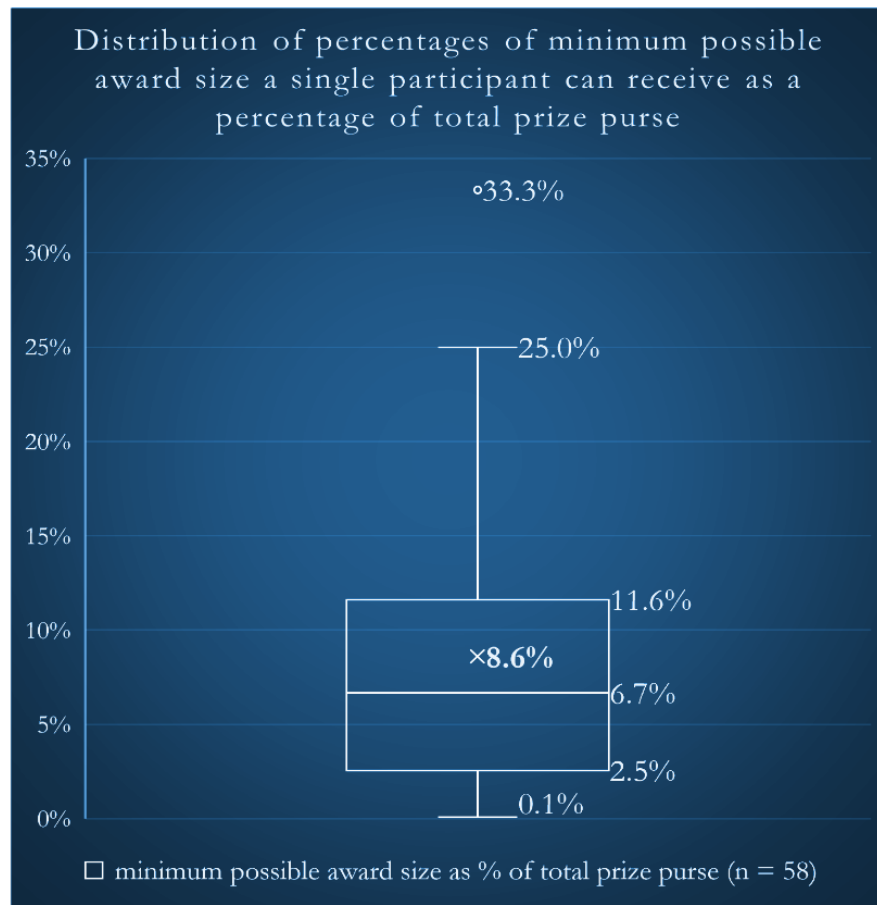


Figure 20: This boxplot shows that on average, the minimum possible award for a non-winning participant amounted to less than 10% of the total prize purse. The 25th and 75th percentiles of the distribution of percentages were 2.5% and 25% (i.e., 2.5% and 25% of the total prize purse).

When prizes and competitions offered awards to non-winning participants, most of them awarded less than 10% of the total prize purse as the minimum prize award possible. On average, the minimum possible award size a single participant could receive (figure 20, 8.6% of the total prize purse) was a little more than a quarter of what the winner ultimately received (32.0% of the total prize purse, figure 19). Only a few prizes and competitions awarded more than 30% of the total prize purse to non-winning participants.^{xxxiii}

2.3.3 In the final round of selection, on average, fewer than a third of the finalists were selected as winners.

^{xxxiii} For example, the Solar in Your Community Challenge in 2019 hosted by the U.S. Department of Energy awarded “seed awards of up to \$60,000” to 34 teams and “vouchers for technical assistance resources and mentoring, worth \$10,000 each” to 110 teams. (www.energy.gov/eere/solar/solar-your-community-challenge.)

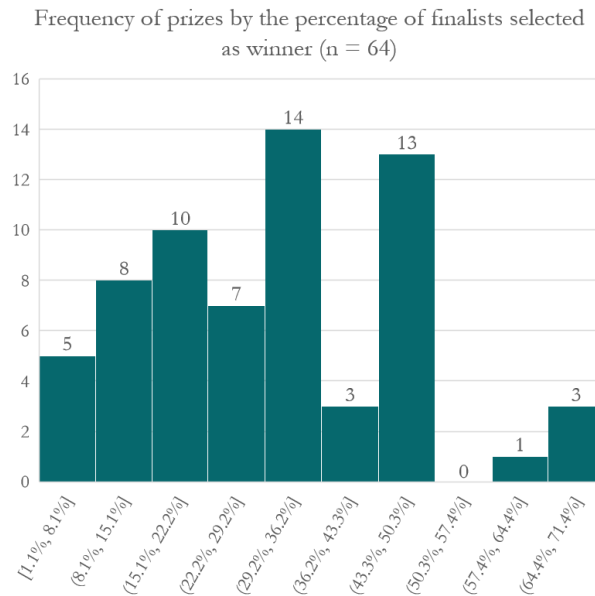


Figure 21: Frequency of prizes and competitions (y-axis) by the percentage of finalists who become winners (x-axis). In the final round of selection to determine the winners of a prize or competition, most prizes and competitions selected less than a third of the finalists to become winners.

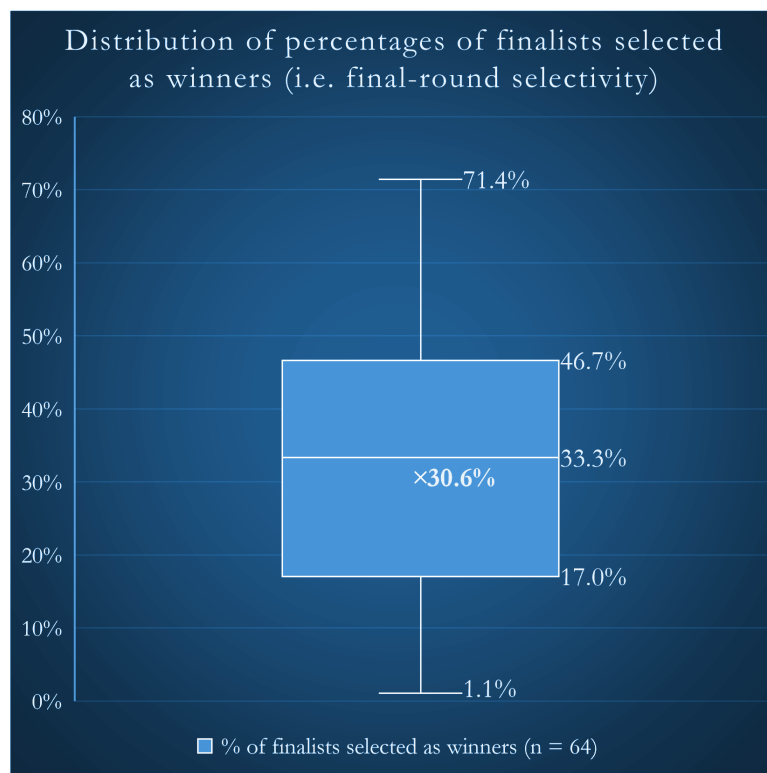


Figure 22: This distribution of percentages of final-round selectivity shows that on average, prizes and competitions chose less than a third of the finalists to become winners.

In the final round to determine the winners of a competition, most prizes and competitions selected less than 40% of the final group of participants.^{xxxiv} The average selection rate was 30.6%, but the majority of competitions selected between 20% to half of the finalists to become winners. Few competitions selected more than half of the finalists to become their winners.

Some interviewees confirmed that this final round of selection may not always be predetermined. The number of winners may be decided while the prize or competition is still in process. At times, prizes and competitions have chosen to change the number of winning teams from year to year:

It always depends on the pool [of applicants]. There is always multiple [winners]—that is by design—because we never wanted just one. Over the years we have had as few as four and as many as eight winners. I was making the point this morning though that we had to be careful about setting finalists’ expectations that they are likely to win.⁵⁶

In other instances, the number of winning teams was left undecided until the sponsor and final decisionmakers evaluated the proposals from finalists:

We had five finalists and talked about them. After we saw those finalist projects, we became really excited about them and decided in that moment that we, as an initiative, would make grants to those other finalists.⁵⁷

While the proportion of finalists who become winners varied, that the number of winners and the amount they receive could vary not only across different prizes and competitions or from year-to-year, but in fact throughout the duration of a single prize event, spoke to the number of variables that could change for a single prize or competition.

^{xxxiv} Different prizes and competitions used different terms for the final group of participants, but most commonly referred to them as “finalists” or “semi-finalists.”

3. Funders have different motivations for funding—and not funding—prizes and competitions.

To better understand the prevalence and persistence of prizes and competitions across industries, the study examined motivations for their ongoing use, often over other tools for grantmaking, open innovation, or asset allocation. In addition to reviewing published motivations and origin stories, the study conducted in-depth interviews with leaders from multiple industries to mine additional, unpublished motivations for funding—and not funding—prizes and competitions.

The following set of findings thus relies heavily on insights from interviews completed with over 50 donors, senior executives, leaders, and prize administrators from multiple industries including philanthropy, the for-profit sector, federal government, and multilateral agencies.

3.1 Definitions of success vary.

Knowing which prize or competition “succeeded” and which “failed” required defining success in the first place. The range of definitions were categorized in three ways:

1. Publicity- and sourcing-based definitions
2. Outcomes-based definitions
3. Value-based definitions

Interviewees understood that different definitions existed. Many focused on one or two primary means of defining success, but at a minimum, acknowledged other definitions of success, underscoring the complexity of defining success for any given prize or competition.

3.1.1 Publicity- and sourcing-based definitions of success

Many interviewees defined success in terms of publicity and sourcing, including measurements of publicity and media coverage, as well as the number of applications received. They frequently turned to measurements of “engagement” and “reach” or the number of “views” or “hits” the prize program, and especially its announcement, received in the press.

A vice president noted that in the third year and iteration of the competition, her company decided to launch a public vote for an additional prize they created:

We have a lot of metrics around how many people we want to reach, how many folks we want to engage. We even put out a public vote and received a lot of votes...[It's nice] when we see that people are caring and seeing.⁵⁸

Another interviewee echoed the sentiment: “We were able to call it a success because we met some specific goals that we set for ourselves in having a certain number of applicants, and registrants, and having a certain quality of applicant pool.”⁵⁹

Many also acknowledged that over time and especially after several iterations of a prize or competition, their definition of success evolved from quantity to quality:

At the beginning, we were so focused on, how many applications did we get? But in reality, [the question is], how many solid ones did we get? Can we send them to our network because they all deserve funding?...Can we say, Hey, World Bank, or Hey, [organizational partner], here are ones that fit your interest area. Let’s help [these finalists] in some capacity.⁶⁰

Many interviewees who defined success by measurements of publicity and sourcing often worked closely with the organization administering the prize or competition, either as an internal or external prize administrator. Nevertheless, publicity- and sourcing-based definitions of success were common and consistent.

3.1.2 Outcomes-based definitions of success

Many interviewees defined success in terms of the ultimate outcome from the prize or competition. Because many prizes and competitions defined a “problem” for which they sought a solution (or solutions), many interviewees defined success based on whether the problem was solved.

A few interviewees understood this definition as a strict dichotomy: the problem was solved, or it was not. The prize succeeded, or it did not. One ultra-high-net-worth individual reflected on a longstanding prize he sponsored and which has not yet been awarded: “The [definition of success] is simple; the problem is solved. This is a solvable problem.”⁶¹ Others have confirmed that other high-net-worth individual sponsors of prizes and competitions have asked, “Why is no one addressing this problem? Why hasn’t anyone solved this yet?”⁶² This understanding was common also among those whose prizes and competitions required technical expertise.

For another high-net-worth individual sponsor, however, the prize succeeded because it looked beyond the solution:

The one-million-dollar prize was nothing, nothing compared to all the stuff around the competition. Hundreds of millions of dollars went toward research and development for the prize. We didn’t award the prize but that wasn’t the point; we wanted to pull the canoe [of scientific progress] forward from the front, not push it from the back. We did that, to great success.⁶³

The sentiment reflected a more common, less binary, understanding of an outcomes-based definition of success for a prize or competition, which asked whether the prize or competition at least provided some progress toward the solution, even if the problem itself was not solved. A federal government official who helped lead multiple challenges described the sentiment in terms of a “north star”:

You’re supposed to have set a north star before you start. Because you have a north star, you are always focused on, are we making progress toward achieving those big picture results? Then we talk about it yes or no. At the end, because you a priori set the goal to the best of your ability—and sometimes you modulate, sometimes you modify—[you ask] alright, where did we end up? And then you hire external evaluators, and they say if where you thought you were, is where you actually were, and if not, why not.⁶⁴

Defining success based on the outcomes was common but doing so depended on assumptions about the outcomes themselves; the prize delivered a solution and therefore could be deemed a success, or the prize inspired enough progress and thus could also be deemed a success. As one executive director said, “*The ultimate success [would be if] the measurement of greenhouse gases starts going down...If greenhouse gases can level off and start going down, then I can pat myself on the back and sail off into the sunset.*”⁶⁵

Understanding success as advancement toward a solution, even if short of the solution itself, was common among those whose prizes or competitions tackled entrenched social issues like poverty, climate change, and health inequities, while understanding success as a binary was seen among those hosted technical prizes and competitions or the individual sponsors themselves.

3.1.3 Value-based definitions of success

Many interviewees defined success in terms of the value proposition of their prize or competition. A successful prize or competition would have to provide value to its stakeholders, emphasizing less who wins or what the “solutions” are than ensuring that the event contributed positively to its audiences.

Many interviewees spoke to the importance of providing value and incentives for those who participate in prizes and competitions, far beyond the prize purse itself. As the phrase “prize program” would suggest, some prizes and competitions try to deliver value through a robust program of services, while others promise feedback, advice, and coaching sessions for its competitors.

An interviewee who oversees a competition for entrepreneurs commented on its value proposition for competitors:

Startups don't just benefit from a little bit of prize money; they benefit from who they meet and who they connect with in the program. By bringing [them] into an ecosystem of different partners, we build the value proposition of the program itself...We have regional competitions around the world and different partners producing these programs. We have a bootcamp program where we run [finalists] through with efforts of connecting them to corporate leaders and investors.⁶⁶

Another corporate prize administrator noted the challenge of providing value to a specific audience:

How do we ensure that we are able to reach a specific audience who feels that [the prize] is worth spending their time on, that there is something that they're going to get out of it...when they're obviously busy students and entrepreneurs?⁶⁷

A federal official of the U.S. government who has overseen prizes and competitions commented on the value-based understanding of a successful prize or competition:

We're seeing that agencies are thinking beyond the prize purse as a terminal incentive, and instead about some notional goals of a solver; how they design an incentive structure beyond a prize purse, that is truly a value-add for that solver. Who is the audience? What is going to be that incentive that compels them to give their time toward the issue instead of something else?⁶⁸

A senior director at a philanthropic prize sponsor echoed the sentiment and provided an example of what their prize tries to add:

We've noticed that visibility is, beyond funding, the one piece that all of these social entrepreneurs need support for. We think it's really important to pour a lot of resources into helping them develop their capabilities for content development and marketing.⁶⁹

Although many interviewees spoke to the value a prize or competition can bring its participants and competitors, many also spoke to the value it must bring other stakeholders including the sponsor, prize partners, and even the general public.

One prize administrator noted a “paradigm shift” that the competition was helping to facilitate:

We're forcing [our corporate partners and investors] to think in a different way. We're saying, we want you to look at whether or not [the competing startup is] commercially viable...but also the impact this company is going to make on the

world or on the environment and people's lives...We're pushing investors to think a little bit differently [and] educating and expanding their horizons on the type of companies they look at and how they evaluate companies in the future.⁷⁰

One former senior executive for an external administration organization commented that whenever he was asked to help launch a prize, he prioritized value for non-winning participants:

I say, I don't care about your winners, I don't even want to talk about your winners. Because you know what? They already get an award. I want to talk about everybody who loses your prize, because there is going to be all but one, maybe two, maybe 20 in your system that are going to lose. How are they going to feel? If you can help those people who don't win, but still love the fact that they were part of the prize, that prize is successful.⁷¹

Whether they engineered the prize or competition to provide value to its participants, sponsors and partners, or others, many interviewees defined success in terms of the value that their prize or competition could provide to its stakeholders.

3.2 Motivations include benefits to the public and to the sponsor(s).

While most prizes and competitions published motivations and origin stories explaining their launch, interviews revealed an array of unpublished additional motivations for funding a prize or competition. Prizes and competitions usually offered benefits for not only the general public, including those who participate in the prize, but also the sponsors themselves, illuminating possible reasons for the resilience of prizes and competitions to this day.

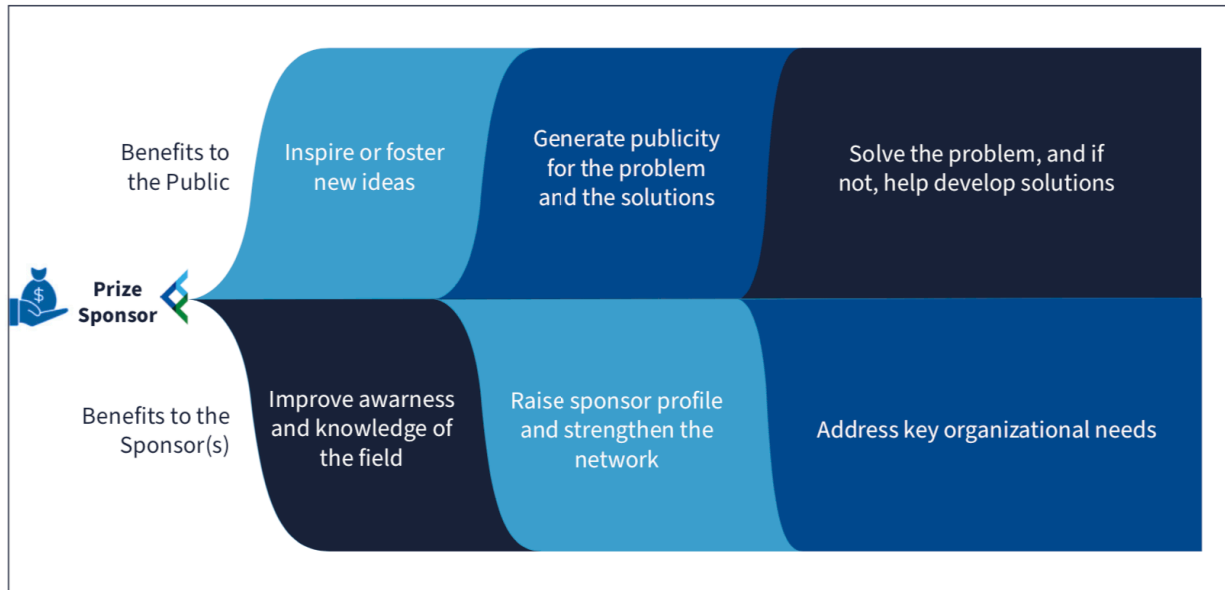


Figure 23: Motivations for launching a prize or competition for the sponsor as revealed by interviews.

3.2.1 Benefits to the public include inspiring new ideas, generating publicity for the problem and the working solutions, and solving a problem.

3.2.1.1 Inspire and foster new ideas

A prize or competition can inspire new ideas. Application-based prizes and competitions, which are the focus of this study, seek different ideas from different people, places, and backgrounds. By simply defining a problem and announcing the potential rewards for solving (or addressing) said problem, prizes and competitions can induce new “solvers”^{xxxv} who may not have previously considered the problem, to participate.

One scientific prize tried to accomplish exactly that by inspiring researchers and scientists in adjacent and relevant disciplines to join the competition:

We wanted to catch the attention of people who would say, you know what, that might actually have another application, and there is a big prize for it and some grants. It was partly trying to be dramatic and catch the attention of people who weren't going to work on it, or who weren't going to say, I definitely want to apply for a grant and do work in this area.⁷²

^{xxxv} Some prizes and competitions refer to their participants or competitors as “solvers” to imply that they are solving the problem posed by the event.

One interviewee from the corporate sector said of the prize they sponsored, that the competition allowed them “to inspire more young entrepreneurs to take the chance to create their own startups and solve more problems using technology.”⁷³

Many prizes and competitions have openly acknowledged this benefit of prizes competitions. One DARPA challenge was considered successful for “creating new communities or expertise and connecting them with DARPA.” A press release on its results alluded to the benefits:

“None of the winners had previous experience working with the Agency, and participating teams were multidisciplinary, including not only specialists in public health and infectious disease but also experts in mathematics, ecology, computer science and bioinformatics,” Hepburn said. “This forward-thinking collaboration is exactly what it will take to stay ahead of the global threat that emerging diseases pose.”⁷⁴

In other instances, prizes and competitions helped facilitate new ideas and ventures by facilitating partnerships and “meeting-of-minds” among prize participants. An executive director at a private foundation said the following about the prize program she helped launch:

We saw [the prize] bring people together who might not otherwise have an incentive to come together but who are part of a system where each of their input is really important to solving some of these larger system-level problems.⁷⁵

When she checked on their progress a year later, she found that the winners and finalists who met one another at the convenings had begun new ventures together. Some prizes and competitions aim to engineer this into their prize: The I AM Hydro Prize from the U.S. Department of Energy states that one of its goals was to “Bring new innovators into the hydropower sector and help form new partnerships and collaborations between industry, academia, and government to accelerate innovative advanced manufacturing technologies for hydropower.”⁷⁶

3.2.1.2 Generate publicity for a problem and the prize participants working to solve it

Publicity for the problem

By simply defining and announcing a problem, a prize or competition can highlight it publicly. Although some prizes and competitions address a need or interest specific to the sponsor (the 2008 Netflix Prize, for example),^{xxxvi} others define a problem relevant to the general public.

^{xxxvi} The Netflix Prize awarded \$1 million to a team for developing an algorithm that “substantially improved the accuracy of predictions about how much someone is going to enjoy a movie based on their movie preferences.”

The specificity of a problem can vary. Some prizes and competitions, including many business plan competitions or startup or entrepreneurial competitions like the Extreme Tech Challenge, do not define a specific problem, relying instead on broad categories or a loose framework: the Extreme Tech Challenge relies on the Sustainable Development Goals of the United Nations;⁷⁷ *100&Change*, the 100-million-dollar competition sponsored by the MacArthur Foundation, was a competitive grant program to recognize proposals that address “a critical problem of our time.”⁷⁸

Others, like the JMK Innovation Prize, seek innovative projects in “social justice, the environment, and heritage conservation.”⁷⁹ Others—often more technical or scientific—define the problem with such detail that only a handful of the most capable applicants participate.^{xxxvii}

No matter the specificity of the problem, however, prizes and competitions can bring attention to a problem or issue pertinent to the general public. One executive director spoke to the hopes of raising awareness for an issue by launching a prize:

We felt like we needed to do something dramatic to get the attention of organizations who don’t even have this [issue] on their radar; there is nobody besides us and some really small firms that are thinking about this.⁸⁰

Interviewees confirmed that, in the words of another foundation executive director, prizes and competitions seem to “*attract attention in a way that typical grantmaking programs might not. It is more likely to reach other people, and stakeholders are more likely to want to be a part of this, whether they end up participating or not. Their awareness is built, their interest is built.*”⁸¹

Publicity for the prize participants

The corollary to highlighting the problem was the possibility of featuring those who have been making worthwhile efforts to solve that problem. As one executive director said of a prize they hosted and which has since been discontinued, the prize aimed to “*highlight bright spots*” and “*awaken people to models of success.*”⁸²

“*How can we reward and celebrate the projects?*” one interviewee asked.⁸³ Others spoke to the power of prizes and competitions to elevate promising ventures as exemplars:

The primary thing [a prize] does is bring attention to an idea and give it some credibility with a broader audience. If you win the Nobel Prize or the MacArthur

^{xxxvii} While competitions sponsored by the DARPA or the XPRIZE Foundation, Inc. may be notable examples, other prizes and competitions sponsor similarly technical prizes like the Egg-Tech Prize sponsored by the Foundation for Food and Agriculture Research, the Michelson Prize and Grants program, and the Horizon Prizes sponsored by the European Commission.

***[Fellowship], you get a card, a currency that will make your idea instantly credible to a lot of people in a lot of organizations. That currency is very important.*⁸⁴**

Many interviewees confirmed that prize participants seemed to value the “currency” of recognition. When a prize sponsor surveyed its past winners and finalists on the most important facet of the award they received, they “*almost exclusively said that recognition was the most important, that it gave them legitimacy among their peers.*”⁸⁵

Many interviewees also returned to the idea of providing value to their prize participants, and in particular, helping them “*gain visibility for [the] social impact heroes.*”⁸⁶ By demanding that the general audience and people beyond prize participants attend to worthwhile efforts aimed at alleviating poverty, fighting climate change, or advancing important scientific research, prizes and competitions can not only “*allow the best idea or innovation to rise to the top*”⁸⁷ but also highlight them to the general public.

3.2.1.3 Solve the problem or advance solutions toward solving it

Many prizes and competitions address problems whose solutions could benefit the general public. Whether it awards a project for combatting climate change or human rights abuses, a prize or competition could not only highlight an important issue and the efforts dedicated to tackling it, but also advance meaningful progress toward solving the problem for the benefit of the public.

One federal official described the benefits of a prizes in the following manner:

***We had some of these long-term development issues which we haven’t solved in 40 or 50 years, even though we have been trying. We needed to try something different than working with the same people around the same problem, year after year...We understand the problems, but we don’t always have the best solutions. [We want the solutions whether they are] from the private sector, from research institutions, from not-for-profits, and NGOS sometimes working locally to come up with a better solution.*⁸⁸**

Across industries, interviewees consistently believed that prizes and competitions held the promise of providing solutions to often multifaceted, even multigenerational social ills, potentially for the betterment of society at large. But the promise of solving problems for public benefit may apply to technological prizes and competitions as well; a publication in the Harvard Environmental Law Review wrote, “*Technology inducement prizes, on the other hand, have the potential to significantly accelerate the rate of technological innovation in the energy sector.*”⁸⁹

3.2.2 Benefits to the sponsor include the promise of knowledge, influence, or capital.

Prizes and competitions hold the promise of doing good for not only society and the general public, but also, importantly, for the sponsor. Interviews revealed a variety of unpublished motivations for sponsors to benefit from launching a prize or competition.

3.2.2.3 Improve awareness and knowledge of a field of interest

Many interviewees confirmed that prizes and competitions can help the sponsor learn more about a field. Given that the barriers to entry are low enough and that enough interested participants apply, prizes and competitions can offer the sponsor a “quick and effective” way to “see *what is out there*.”⁹⁰

One interviewee at a nonprofit organization commented on the amount of awareness it gains from hosting the competition every year: “*It’s a really great way to generate a lot of research material and continue to have our finger on the pulse of what’s going on across all these different arenas and policy areas.*”⁹¹

That sentiment was echoed not only by different interviewees, but also across industries. According to an article on a challenge run by General Electric, “...the company’s chief manufacturing engineer said: ‘The challenge was a fantastic way to broaden our exposure to potential new players and new technologies. Only two of the organizations that participated were previously known to us, and it’s inspiring—and eye opening—to see such a broad variety of submissions from around the globe.’”⁹²

Sometimes, what the prize or competition reveals can be sobering. One interviewee remembered how the sponsors reacted after seeing the initial set of proposals the competition had hosted:

I think for many [at the sponsoring organization] who may have thought communities were further along than they actually were, [the prize event] proved quite sobering. When they saw some of the applications come in, they said they needed to reevaluate their strategy to tackle [this issue area] around the nation.⁹³

How much a prize or competition can reveal about a field to the sponsor depends on whether the barriers to participate are low enough, whether enough applicants who are representative of the field apply, and whether the incentives of the prize or competition are structured to ensure participants apply and join.^{xxxviii} Interviews nevertheless confirmed that

^{xxxviii} Rights to copyright and intellectual property also play a key role in the amount of information a prize participant may be willing to provide, if they participate at all. For example, Google.org states that it “will not treat your application as confidential or proprietary, and the details of your project may be shared with internal or external experts to evaluate your proposal: please do not submit any proprietary or confidential information

under the right circumstances, prizes and competitions can help a sponsor learn a great deal about a field of interest.

3.2.2.4 Raise sponsor profile and strengthen network

Raise sponsor profile

Many sponsors employ a variety of publicity, marketing, and branding exercises to promote their prizes and competitions. Although such efforts try to drive enough quality applicants for consideration, interviews revealed additional motivations for launching a prize or competition including the possibility of raising the visibility and influence of the sponsor through elevating the brand, increasing media coverage, and producing good press about the sponsor.

Interviews revealed that because prizes and competitions often “grab people’s attention,” many sponsors take the opportunity to craft and present an intentional image to their audiences:⁹⁴

Being very much a technology leader, [the sponsor] wants to show that we’re ensuring that our technology and other technologies are being used for good. I think that’s very much an underlying motivation for many large corporations, to make sure we are being seen using our super technology superpowers to do what is good for the world.⁹⁵

Sometimes, the branding effort may be targeted less to a broad public than to specific industries or organizations:

We were happy to have other funding partners, but it’s really ultimately toward driving attention to the challenges in the [issue area] and raising the credibility [of the sponsor] as a funder within the [issue area].⁹⁶

Many interviewees understood this desire for private gain through prizes and competitions. Several interviewees expressed their skepticism over the amount of public benefit sponsors of prizes and competitions alleged:

You want me to be completely honest? I think these big funding organizations or international bureaucracies want to present an image of themselves as innovative and creative and being able to connect to different parts of societies. It’s a way to project an image of doing something interesting and creative. That’s not to say that the ideas that come forward aren’t appreciated...But when you work in a big

in your application...If you are selected to receive a grant, the standard grant agreement will require any intellectual property created with grant funding from Google be made available for free to the public under a permissive open source license.” (FAQ. Google.org Impact Challenge. 2021)

***organization, it's easy to forget stuff. You get caught up in the moment, then you go on with your business as usual.*⁹⁷**

That sentiment has been echoed particularly in philanthropy. In the 2013 article entitled “Dump the Prizes” in the *Stanford Social Innovation Review*, Kevin Starr wrote, “Too many of these contests and prizes seem like they are more about the givers than the getters anyway.”⁹⁸ Indeed, another interviewee for the study who worked closely with clients and sponsors from multiple industries to host prizes and competitions commented that “*many sponsors just want eyes on the organization or [in corporate settings] the new product. Some don't even care about the product; they just want the marketing.*”⁹⁹

One interviewee noted that in some cases, selecting the “right” winners of the prize or competition can itself help the brand and image of the sponsor:

***If you find the diamond in the rough, that's a pretty good thing for your brand. Or for your name...Wow these guys must be really well connected to be able to fund this, other people didn't find these things.*¹⁰⁰**

In contrast to some interviewees, others fully accepted the sponsors' desire for private gains and expressed strong support for the continued use of prizes and competitions:

***I think [prizes and competitions] are great. You get to highlight the problem, elevate the best ideas, give them some funding, let sponsors get some good press and media, and make sure people have a good time. I feel like it's a win-win.*¹⁰¹**

Interviews confirmed that as often as sponsors use prizes and competitions to try to contribute to the public good and elevate worthwhile efforts dedicated to tackling important problems, many also take the opportunity to raise their own profiles for the promise of strengthening their influence.

Strengthen network

In addition to strengthening their influence by raising their profiles through publicity and marketing, sponsors use prizes and competitions to cultivate new relationships to strengthen their own networks, often by extending invitations to judge, co-sponsor, or partner in some way.

One administrator said that when judges, partners, and other stakeholders meet at finalist events or convenings, “*they like to network.*”¹⁰² Another interviewee noted that these events can “*feel like mini-conferences where corporations, partners, and judges can meet with each other.*”¹⁰³

A director overseeing a prize that has run for several years said the following:

[The prize] provides a forum for [sponsors and judges] to meet other investment leaders around something they are all personally passionate about. It gives them a sense of purpose and mission, and they're coming together around that purpose and meeting a lot of other investment leaders they can then do deals with on a daily basis.¹⁰⁴

Some sponsors use prizes and competitions exclusively to network. One former executive of a prize administration company spoke honestly about internal motivations for some sponsors to launch, or join, a prize or competition:

I think [additional sponsors to a prize program] just want to be a part of it. They have a ton of money, and they want to be in the room where it happens. They want to be part of the cool kids club, they want to be part of the visionary club...So what's 10 million? It's nothing, that's pocket change.

In another instance, a sponsor who did not have a network in the field of interest wanted to use a prize or competition to build a network:

There were two reasons [for launching the prize]; one was to drive change with sustainable lifestyles. The other reason was to position [the sponsor] as an innovative, collaborative, sustainable [funder], with the stakeholders globally. And that was quite an efficient way of doing that, and building networks with incubator science projects, accelerators, universities, or big companies...It was a quite effective.¹⁰⁵

For other sponsors, networking through prizes and competitions can inspire greater learning through opportunities to leverage joint expertise and can strengthen the prize program itself:

By having different perspectives, [different sponsors collectively] create a sum that is greater than all of its parts. We get a synergy from [the first sponsor] around gender and equity, then from [the second sponsor] on private sector engagement, from [the third sponsor] on green growth...Because everybody has a different focus, that strengthens the overall program.¹⁰⁶

Interviews revealed that prizes and competitions provided sponsors a means to strengthen their network whether they sought to leverage the added expertise or to gain access to new partnerships.

3.2.2.5 Address key organizational needs

Interviewees shared that some prizes and competitions can be intended to meet specific organizational needs of the sponsoring organization.

Sourcing or deal flow

Prizes and competitions, especially those that have been made accessible to the target audience, can unearth new voices, potential partners, grantor-grantee relationships, and portfolio companies for their sponsors. Particularly in instances when other sourcing streams may compete for attention and resources, sponsors can use prizes and competitions to “tap into an audience of solvers that would not be competitive for a grant or contract.”¹⁰⁷

Exemplary are prizes and competitions targeting startups and entrepreneurs that provided the sponsors and prize participants (judges, event partners, etc.) a “constant deal flow.” As one prize administrator of such a competition shared, “[the sponsor and its partners] are getting access to this constant deal flow... They’re also learning about emerging technologies they didn’t know about.”¹⁰⁸

Strategic objectives

Prizes and competitions can also help sponsors meet strategic objectives, from solving problems specific to the company to exploring new initiatives. If the objective is to solve a problem, sponsors may turn to platforms like InnoCentive or NineSigma and market exclusively to the community of “solvers”; if the objective is to explore new possibilities, sponsors may market to a wider audience.^{109,110} (Some corporations, including the pharmaceutical company Johnson and Johnson, hold innovation challenges on their own company website.)¹¹¹

Employee engagement

Sometimes, prizes and competitions can help engage the employees of the sponsoring organization:

They’re not getting the most out of their people, and they need a really creative way to engage and inspire talent... When you present a challenge to someone, all of a sudden, people can get really good at working together... That doesn’t happen in the day-to-day water cooler. That’s not a natural thing.¹¹²

While using prizes and competitions to inspire employee engagement may seem like a trick of the for-profit industry, interviewees confirmed that many in the nonprofit and philanthropic industries also turned to prizes and competitions to promote “democratic decision-making” and staff engagement.¹¹³

Many sponsors believe prizes and competitions work to promote staff engagement:

[The employees] feel very good about being able to participate and give back in a way that is helping these types of organizations make a difference. That is, I think,

another important aspect as we look to understand how [this prize] is affecting [the company] overall, internally and externally.¹¹⁴

The versatility of prizes and competitions to address multiple needs of the sponsor may help explain their resilience and popularity across time and industries.

3.3 Reservations against prizes and competitions endure.

Despite the promise of prizes and competitions to provide value to a variety of stakeholders including the sponsors, participants, and the general public, reservations around the use of prizes and competitions remain.

3.3.1 Many sponsors may be risk averse.

Prizes and competitions are far from the only vehicles for allocating assets or donating charitable dollars. Estimates suggest that charitable giving in 2020 exceeded \$471 billion, 28% of which went toward religion (\$131 billion) and 15% of which went toward education (\$71 billion);¹¹⁵ both issue areas received minimal representation among prizes and competitions in 2020, if any at all.^{xxxix} (Those who give toward religion may not be those who have the resources and capacity to sponsor a prize or competition. Researcher Pamela Paxton writes, “Although religious organizations receive one third of all donors’ contributions, they receive only 12 percent of contributions from high-net-worth donors. Generally, a higher a house-hold’s income, the smaller the share of its donations that goes to religion.”¹¹⁶)

The decision then to host and administer a prize or competition may be closely tied to a sponsor’s appetite for risk broadly. Often attracting more public attention and media coverage than traditional grant programs or request-for-proposal (RFP) announcements, prizes and competitions might entice sponsors who are willing to invest in a specific mechanism to meet their needs, often in lieu of other options they are already more familiar with or used to.

A founding executive director of a prize discussed what it was like to pitch launching a prize to a primary sponsor:

To be quite honest, it was a little hard for me to get him involved...A lot of times people think about, well, how will I get a return on my investment? Or how will I be at the latest greatest stages of innovation? Or how will I know what’s the coolest thing coming down the pipe...So to get [the donor] involved, it actually took me a

^{xxxix} For comparison, this study analyzed charitable prizes and competitions from 2020 with an aggregate prize purse exceeding \$470 million, which still amounted to only 0.36% of total charitable contributions made toward religion alone. (See Appendix C for more.)

really long time. And he literally decided to [launch the prize] when the United States pulled out of the Paris accord.¹¹⁷

Another interviewee noted that prizes and competitions as a vehicle for allocating assets, much less driving innovation, continue to face questions on whether they are worth the risk:

It's like pharmaceuticals, right? Nine out of 10 of them are going to fail. Good. So what's their process [in running a prize]? Is their process for picking the winner better than other grantmaking mechanisms? I don't know.¹¹⁸

With the onset of the COVID-19 global pandemic and a worldwide economic downturn, some potential sponsors of prizes and competitions may have chosen to strengthen their giving in ways they already knew and toward institutions they had believed in already, instead of giving to new enterprises through a prize or competition.^{xi} As one interviewee who works closely with philanthropists commented, some chose to hold onto their assets and “go into hibernation”¹¹⁹ rather than launching a new initiative. Some interviewees confirmed that they had to “pause” their prize or competition given the exceptional circumstances.^{xli}

3.3.2 Political atmosphere may have exacerbated concerns of being criticized.

Interviews revealed that the prevalence of social media and increased public scrutiny have led many high-net-worth individuals, philanthropists, and corporate sponsors to be increasingly “concerned” and at times “worried” about “cancel culture.”¹²⁰ The 2020 global pandemic, revelations about ongoing social injustices in the United States and around the world, and contestations over democratic institutions only exacerbated these fears, making potential sponsors of prizes and competitions worried that what could once have been considered a charitable act could be criticized openly in front of the rest of the world.^{xlii} One executive described her team’s decision to pause the prize in 2020 given the exceptional circumstances:

Given our world has changed so much this year, given the real drive toward greater awareness and a reckoning with racial and social justice, my gut is telling me to tread carefully. Right now, there are a lot of mechanisms of capitalism that have evolved and that we've adopted and carried forward. And I think a prize competition is absolutely one of those mechanisms of capitalism...You can try to

^{xi} For a recent discussion of risk in philanthropy, see the [2020 “Up for Debate” series](#) from the *Stanford Social Innovation Review* with opinions from the likes of Larry Kramer, President of the William and Flora Hewlett Foundation, and Rob Reich, faculty at Stanford University and author of *Just Giving* (2018).

^{xli} To be sure, some prizes and competitions arose specifically to respond to the historic pandemic. Many were launched by those who had administered prizes and competitions before.

^{xlii} Most notable maybe the 2018 novel [Winners Take All](#) by Ananda Giridharadas who was also invited to speak on the Daily Show with Trevor Noah.

build more just and fair processes into competitions, but at a certain level you're modifying a structure when that very structure itself could actually be under question. Is it a case of modifying it to meet the needs of today? Or is it one of those structures that are actually helping to support a system? I don't know the answer to that...but you're using the tool that feels like it is designed to perpetuate the system that has caused the problem. My gut tells me, don't take anything for granted. We're being asked to look at things differently.¹²¹

Another former executive at an organization that sponsored the prize echoed this sentiment, saying that she had “some fundamental issues with putting [applicants] in competition with each other when you are trying to do something that is so connected to people's welfare.”¹²²

The concern seemed prevalent among most interviewees, with one describing prizes and competitions as a “NCAA March Madness tournament when people's lives are at stake.”¹²³ A fraught political climate during a global pandemic may have struck fear in an already risk-averse group of sponsors and potential sponsors, dampening interest in high-profile sponsorship opportunities like prizes and competitions and instead turning to mechanisms that they had relied on.

3.3.3 Capital-intensity, labor intensiveness, and time commitment, along with questions on “effectiveness” leave some donors hesitant

Prizes and competitions also face questions over the amount of time, capital, and labor they require and whether such effort is “effective” or merits the heavy investment.

On capital-intensity, labor intensiveness, and time commitment

Interviewees routinely referenced the intensity of the work preparing and executing a prize or competition.^{xliii} While the sentiment was pronounced among prize administrators, senior executives and donors also acknowledged the amount of work prizes and competitions required. As one interviewee said simply, “It's really hard to run great challenges.”¹²⁴

The labor begins even before the prize or competition launches. The sponsor must define the topic the prize or competition will present. The sponsor must then structure incentives and criteria, design the process, and identify or invite the decisionmakers (not to mention those who will manage the entire event). Once the prize or competition launches, it must be marketed or publicized to ensure enough (qualified) applicants, then turn to its reviewers and decisionmakers through often multiple rounds of deliberations to decide the winners.^{xliv} Then

^{xliii} The study assumed throughout the interviews that if one were to deliver a prize or competition, one would try to do it well.

^{xliv} One executive director remembered that “the hardest part was getting people to apply the first couple of years. We're going to give money away, [and yet] it was hard to get the word out, to get enough applications...It was a lot of work.”

the prize or competition likely requires a celebratory event to announce and congratulate the winners.

Many interviewees professed that they wish they had more time, capital, and staff. They wanted to improve the design of the competition, make the review process fairer, and explore additional ways to support the prize participants (particularly those who did not win). In one instance, an individual donor who had launched a prize many years ago had to “pause” the prize before returning to it a few years later:

There was a little bit of a sabbatical for a few years. And [the private individual donor] was working hard, he has a lot of other businesses he has working on the side. So he had been waiting on the year he could dedicate time needed for this prize. This just happened to be that year where he was able to get back into it.¹²⁵

Some sponsors were more involved in their prizes and competitions than others. Other sponsors chose to partner with external prize administrator for any number of reasons including lack of capacity, ease of delivery, and faith in the partner’s capacity. As one executive director noted, such partnerships can “*actually save us money*” because the sponsor organization “*is a small team.*”¹²⁶

On effectiveness and outcomes

When viewed as a vehicle to allocate assets (philanthropic or otherwise), prizes and competitions face questions around “effectiveness” and whether they provide sufficient “returns-on-investment.” Given the time, labor, and capital they demand, prizes and competitions inspire sponsors to ask whether their efforts will be worthwhile.^{xlv}

One prize administrator shared that when they completed a survey in 2010 on past winners and finalists, they found that “a significant number had gone defunct after 2008.”¹²⁷ While the recession that year may have contributed to many of the winners and finalists closing their doors, prizes and competitions, especially those most technical, also face the possibility of not awarding the prize at all:

There is always a chance that you’re not going to give the prize [because no one solves the problem]. If those that are competing cannot meet the requirements, we may not give out a prize, and the funders and co-funders have to understand that too.¹²⁸

One interviewee commented on decisions to shut down programs due to lack of patience, alluding to the importance of sustaining long-term support especially when prizes and competitions aim to address long-term systemic change.

^{xlv} Interviews revealed that what counts as “worthwhile” effort aligns with different definitions of success and ranges from finding the solution to providing value for prize participants.

When [prize programs] shut down, good ideas shut down, it's because the person at the top gets impatient. And they want to see the needle move. And they've got other places that they want to spend money, and they don't really care about the long-term success of anything.¹²⁹

Prizes and competitions demand investment in capital, time, and labor. Whether donors and sponsors choose to justify such commitments seems to depend on not only their appetite for risk generally, but also how they define “effectiveness” and what they expect in return.

The one thing: Ex-post evaluations of prizes and competitions are rare.

The most consistent finding confirmed by almost every interview was that ex-post, or post-prize, evaluations of the winners, finalists, and non-winning participants were rare.

Donors and sponsors' uncertainty about the "effectiveness" of prizes and competitions may be due in part to not only different definitions of success and expectations on their "returns-on-investment," but also the fact that few prizes and competitions have even tried to answer the question.

Most interviewees viewed post-prize evaluation efforts as an aspiration. One manager captured this sentiment which was echoed by other interviewees:

I think [post-prize evaluation] is where we have done the weakest job. We have tracked [the outcomes of winners] to a certain extent, in an ad hoc way...but we haven't done anything formal about that [systematically]. But I think that formalizing that is absolutely going to be necessary for us to continue to get funding and increase our prize pool. And we would love to be able to share that impact as well.¹³⁰

Interviews pointed to a lack of budget, staff, and time as the reasons. This was particularly the case for interviewees who dedicated themselves to running a prize annually. (As one interviewee noted, "If you haven't budgeted and planned for it, it's probably not going to be prioritized."¹³¹)

Sometimes, the directive to leave ex-post evaluation work came from either a superior or the sponsor. One interviewee remembered that the individual donor explicitly told the team delivering the prize, "don't bother."¹³² Such sponsors may have already accepted the risk of awarding enterprises that would not last, understood the value their prize already created, or wanted the team to prioritize other objectives.

In fact, sometimes the decision to not track the winners, finalists, and non-winning participants was made well in advance of launching the prize:

We long ago decided we couldn't track [outcomes] without having some incentive piece wrapped in; it would be impossible to track who is doing everything. But there is a certain hope that [the winners] are serving as ambassadors.¹³³

One interviewee described the motivations he had seen that may be driving this dearth of ex-post evaluations:

Some challenges don't want to be measured against a standard set of metrics because they are experimental. Other challenges want to be measured against the standard stuff, because [the sponsors] want to say, see, we're better than that. It really then becomes a hodgepodge of different lenses through which people want to be viewed. For example, if you are looking for early-stage innovation, it's not fair to look at what wide-scale adoption they have because they are early stage, and it usually takes 10 to 15 years for technology to really develop. So they often don't have the time frame to look at that [level of impact].¹³⁴

Another interviewee commented that ex-post evaluations may not be occurring because of the difficulty of measuring “impact”:

There is a real lack of data for real impact. I think that we're actually globally quite bad at measuring impact for that type of systemic transformative change, and that's part of the problem. We're developing practices on mission-oriented approaches, challenge-driven innovation and so on, but simultaneously we're trying to become better with measuring impact.

While some prizes and competitions have begun employing post-prize alumni networks and various coaching sessions, these efforts were more programmatic than evaluative. The closest efforts to tracking what happened after the prize or competition included survey reports of prize participants, informal correspondences, and informal interviews with past winners or prize participants.

Some interviewees understood that for some sponsors, tracking what happens after the prize misses the point; the prize, with enough value and incentives, can itself be a worthwhile end. A few interviewees championed this sentiment, recognizing the import of the entire prize process for the sponsors, prize participants, and other interested stakeholders. The argument suggests that focusing on the work that follows the prize diminishes the value the prize itself can, and at times, must, bring.

Still, the finding is consistent with other studies of prizes and competitions. The 2009 study by McKinsey and Company found that “over 40% of [sponsors surveyed] say they either “never or “very rarely” evaluate the impact of their prizes, while a further 17% report doing so only “every few years.” Only 23% evaluated the impact of their prizes annually.¹³⁵

In a few cases, the sponsors may have used what data and information they may have been tracking to determine whether to continue, or pause, their prize. Although such decisions were usually not made public, there were rare exceptions including the Broad Prize for Urban Education sponsored by the Eli and Edythe Broad Institute.

The following is a public statement from the sponsor of a prize on the reasons for pausing its \$1 million prize in education:

BROAD FOUNDATION TO PAUSE \$1 MILLION BROAD PRIZE FOR URBAN EDUCATION

Monday, Feb. 2, 2015

LOS ANGELES—The \$1 million Broad Prize for Urban Education, which for the last 13 years has been awarded to public school systems that have demonstrated the greatest overall performance and improvement in student achievement while narrowing gaps among low-income students and students of color, will be paused while The Eli and Edythe Broad Foundation updates the award to better reflect and recognize the changing landscape of K-12 public education.

Figure 23: Screenshot of the first paragraph of the statement, “Decision to pause the Broad Prize for Urban Education” from the Eli and Edythe Broad Foundation.¹³⁶

“The decision to pause the prize was further precipitated by sluggish academic results from the largest urban school districts in the country. Previously, 75 of the largest public school districts in the country were automatically eligible for The Broad Prize each year. A review board of education experts reviewed performance data and selected the finalists. Since 2002, there have always been four or five finalists. Last year, the review board advanced only two districts to a selection jury for consideration, and the jury of prominent leaders, including former U.S. secretaries of education, decided to award the 2014 Broad Prize to both finalists.”

President Bruce Reed commented, “We want to make sure any award recognizes the best achievement in K-12 public education today while incentivizing school systems to raise student achievement to the highest level.”

Although reasons for pausing or closing a prize might mirror those given for closing other programs, departments, or initiatives at organizations and companies, the lack of evaluation efforts after the prize or competition concludes may lead to scarcity of data on the impact prizes and competitions can have, the benefits they provide prize participants, and the returns on investment they provide sponsors.

Notable efforts

The study found two notable efforts that have been either announced publicly or made available to the public: one from the Impact and Innovation Unit (IIU) of the Government of Canada, and the other from the Business Plan Competition at Rice University in the United States.^{xlvi}

^{xlvi} While there may be plenty of other such ex-post evaluation efforts at different prize sponsors and companies, the two accounted here stood out for their novelty, transparency, or detail.

Impact Canada, Government of Canada

The Impact and Innovation Unit (IIU) of the Government of Canada, which partners with other Canadian government agencies to launch a variety of challenge prizes, recently started a venture with the statistics department of the national government to “conduct an assessment of Impact Canada’s current suite of challenges”:

“The IIU intends to build evidence of the extent to which Impact Canada challenges achieve desired outcomes, filling gaps in the understanding of whether and how challenges can be effective instruments of policy and program delivery.”¹³⁷



Figure 24: Cover page of the impact assessment report on the website of the Government of Canada.

The ongoing effort aims to assess the impact of its challenge prize program in much the way the social sciences evaluate the impact of various “interventions.” Notably, the effort plans to track participants from past challenges, evaluating the current status of their enterprises and the extent to which their participation in the challenge may (or may not) have impacted their trajectories.

Business Plan Competition, Rice University

On its website, Rice University’s Business Plan Competition shares an extensive history of its results from the many startup- and entrepreneurial competitions geared toward students and young entrepreneurs, dating to 2001:

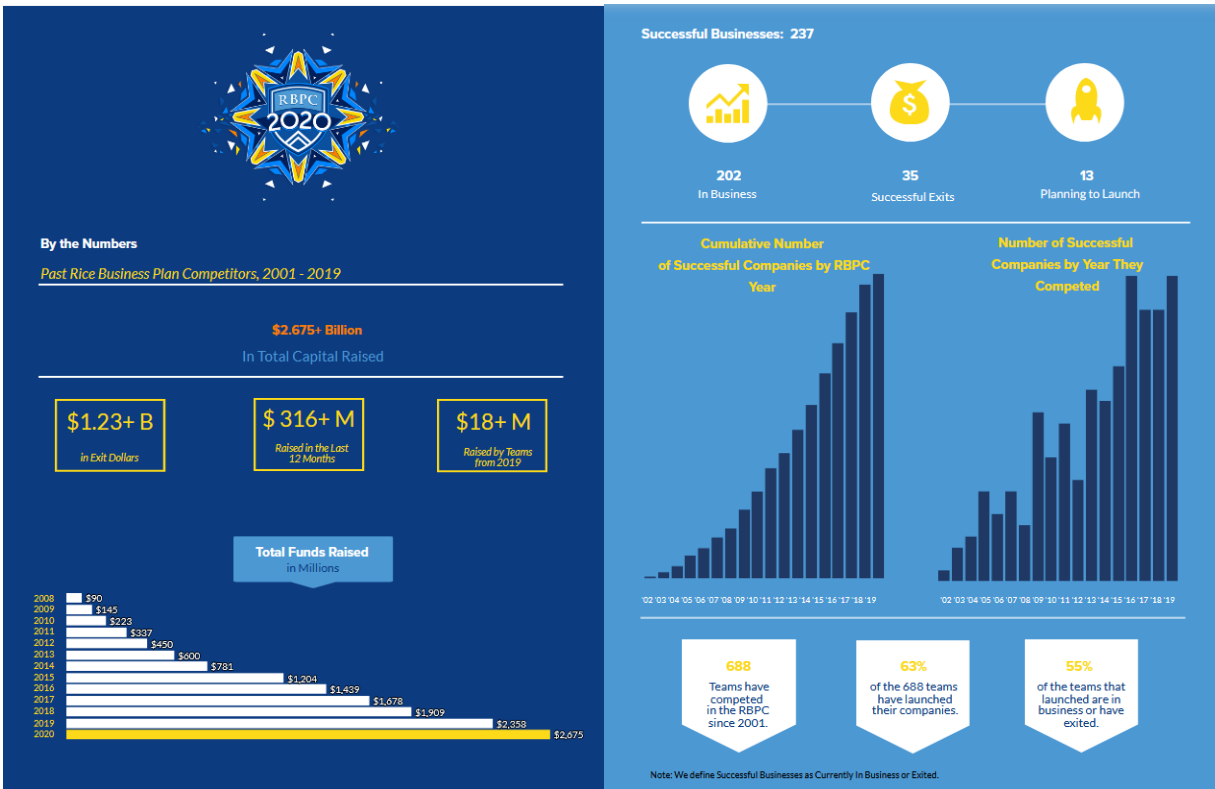


Figure 25: Screenshots from the website of the Rice Business Plan Competition.¹³⁸

The data include total funds raised by participants and winners of the competition, the number of dollars successfully raised by each class, the number of enterprises that continue to be active, and the number of successful exits.

Such information likely required dedicated staff to keep track of participants and competitors over time, as well as a significant commitment to support teams after the competition to network and raise additional capital. The ongoing evaluation effort itself, of course, was likely supported by Rice University or different sponsors of the program.

By evaluating what happens after the prize concludes, sponsors and administrators can potentially better understand the impact of the programs, learn ways to bolster their value proposition, and inspire more capital and support for their work. Yet such efforts still remain rare at best. Demonstrating and sharing what happens after the competition may inspire those interested to start or continue to employ prizes and competitions, illuminate the role prizes and competitions can have on winners and non-winning participants, and help demonstrate their value and returns-on-investment to potential sponsors, prize participants, and the general public.

Final comments

This study aimed to describe a broad and diverse landscape of prizes and competitions sponsored by organizations from multiple industries, administered using different methods, and delivered toward a variety of objectives and issue areas.

Based on the identification of more than 580 prizes and competitions from the past fifty years, deep analysis of more than 160 prizes and competitions from 2020, and interviews with more than 50 donors, senior executives, government officials, nonprofit and philanthropic leaders, and academic scholars, the study aimed to distill the following insights:

- The number of application-based prizes and competitions, sponsored by organizations across multiple industries, increased dramatically over the past ten years;
- Prizes and competitions share similarities across different prize purse amounts and administration methods, including prioritizing *community and economic development*, *science*, and *health*, looking for “impact” and “innovation,” and distributing on average a third of the total prize purse to winners;
- Motivations for launching prizes and competitions include the promise of redefining success, providing benefit to the public, and generating private gains for the sponsor, while reservations against them include risk of public criticism and questions around their effectiveness and returns on investment.

The study also found gaps in the landscape, including issue areas not represented by prizes and competitions, a divergence between sponsors that prefer administering prizes on their own as opposed to relying on external administrators, and an overwhelming lack of ex-post evaluation efforts. Despite their resilience, prizes and competitions continue to face questions around their purpose, benefits, and long-term impact. Their future popularity may depend on the extent to which they continue to deliver value, how much of it they deliver, and ultimately for whom.

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- ⁶⁴ Interview, Federal government official, U.S. Government. October 2020.

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- ⁶⁵ Interview, Executive Director, Private foundation. November 2020.
- ⁶⁶ Interview, Director, Prize Administrator backed by corporation. November 2020.
- ⁶⁷ Supra, note 54.
- ⁶⁸ Interview, Federal government official, U.S. Government. October 2020.
- ⁶⁹ Interview, Senior Director, Private foundation. September 2020.
- ⁷⁰ Supra, note 61.
- ⁷¹ Interview, Former Senior Executive, Prize administrator. September 2020.
- ⁷² Interview, Consultant, former executive of sponsor organization. September 2020.
- ⁷³ Supra, note 54.
- ⁷⁴ “CHIKV Challenge Announces Winners, Progress toward Forecasting the Spread of Infectious Diseases.” U.S. Department of Defense. Defense Advanced Research Projects Agency. 26 May 2015. www.darpa.mil/news-events/2015-05-27
- ⁷⁵ Interview, Executive Director, Private foundation. September 2020.
- ⁷⁶ “Hydropower Manufacturing Prize Winners Conceive Strategies to Lower Costs and Improve Performance of Hydropower Components.” Office of Renewable Energy. U.S. Department of Energy. 13 January 2021. www.energy.gov/eere/water/articles/hydropower-manufacturing-prize-winners-conceive-strategies-lower-costs-and
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- ⁸¹ Supra, note 69.
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- ⁸³ Interview, Prize administrator, Corporation. September 2020.
- ⁸⁴ Interview, Senior Executive, Multilateral institution. November 2020.
- ⁸⁵ Supra, note 64.
- ⁸⁶ Ibid.
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- ⁸⁸ Supra, note 59.
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⁹² “Brilliant Minds solve GE Aviation Open Innovation Challenges.” IdeaConnection Ltd. 4 May 2015. www.ideaconnection.com/open-innovation-success/Brilliant-Minds-Solve-GE-Aviation-Open-Innovation-Cha-00537.html

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⁹⁴ Interview, Senior director of federal agency, U.S. Government. February 2021.

⁹⁵ Interview, Senior Executive, Corporation. January 2021.

⁹⁶ Supra, note 86.

⁹⁷ Supra, note 77.

⁹⁸ Kevin Starr. Dump the Prizes. Stanford Social Innovation Review. Stanford University. 2013. [hyperlink](#)

⁹⁹ Interview, Former Executive, External administrator. January 2021.

¹⁰⁰ Interview, Senior Executive, External administrator. November 2020.

¹⁰¹ Interview, Chief Executive Officer, Venture capital. March 2021.

¹⁰² Supra, note

¹⁰³ Interview, Director, External administrator. September 2020.

¹⁰⁴ Interview, Director, Corporation. October 2020.

¹⁰⁵ Interview, Consultant, Multilateral agency. September 2020.

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¹¹⁶ Paxton, Pamela. “What Influences Charitable Giving?” In Powell, W.W. and P. Bromley (Third Edition) The Nonprofit Sector: A Research Handbook. Pp. 543-557. Stanford University Press. 2019.

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¹¹⁸ Supra, note 81.

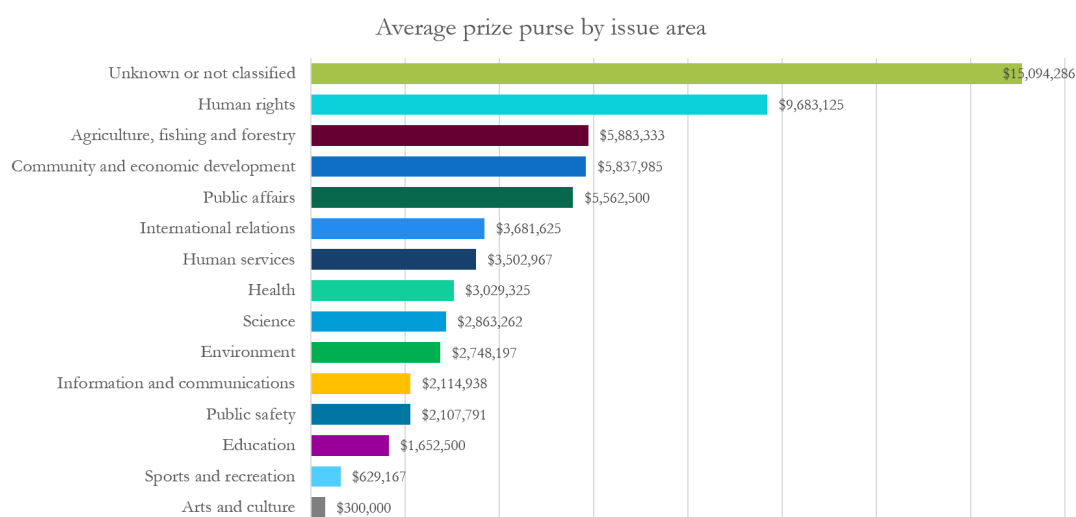
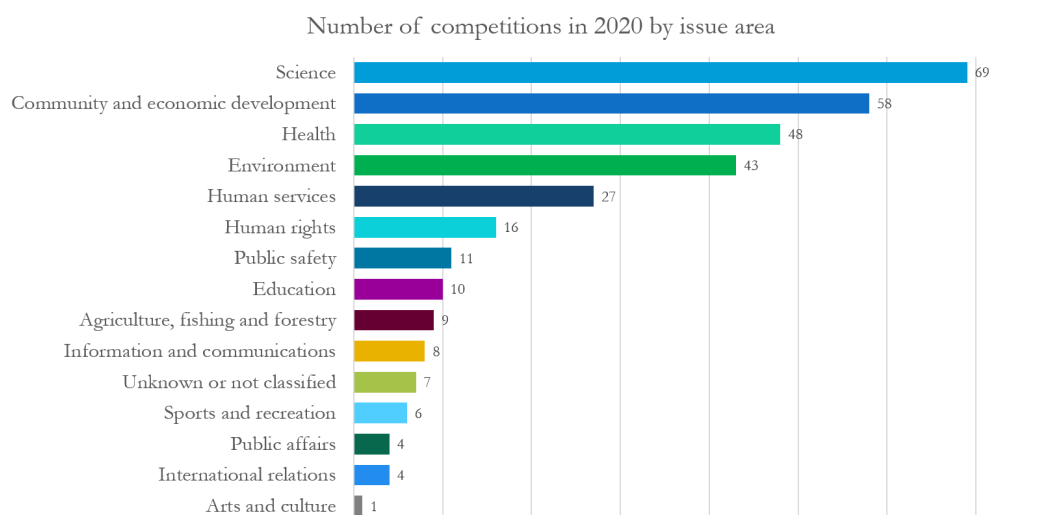
¹¹⁹ Interview, Executive Director, Corporate donor support company. February 2021.

¹²⁰ Interview, Individual sponsor, Academic. February 2021.

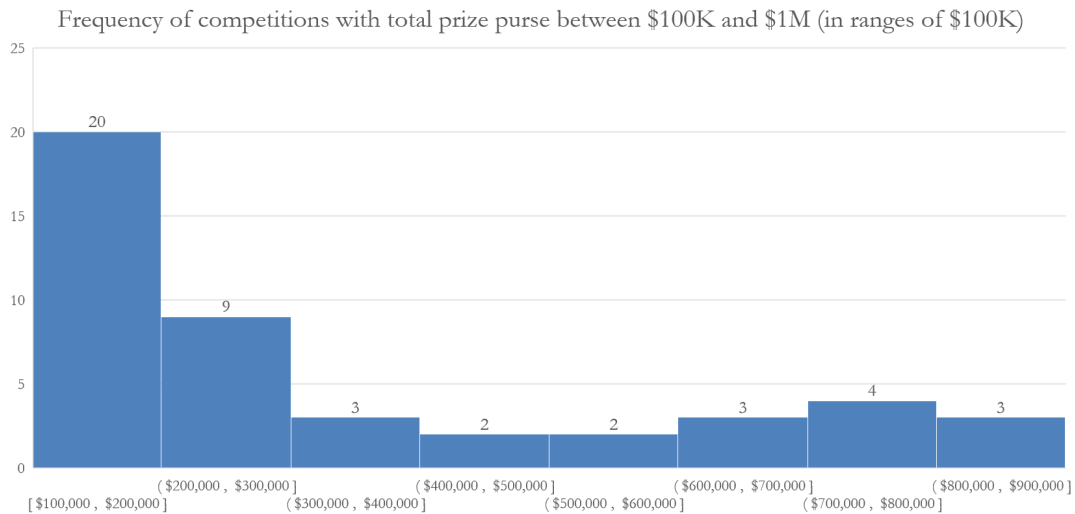
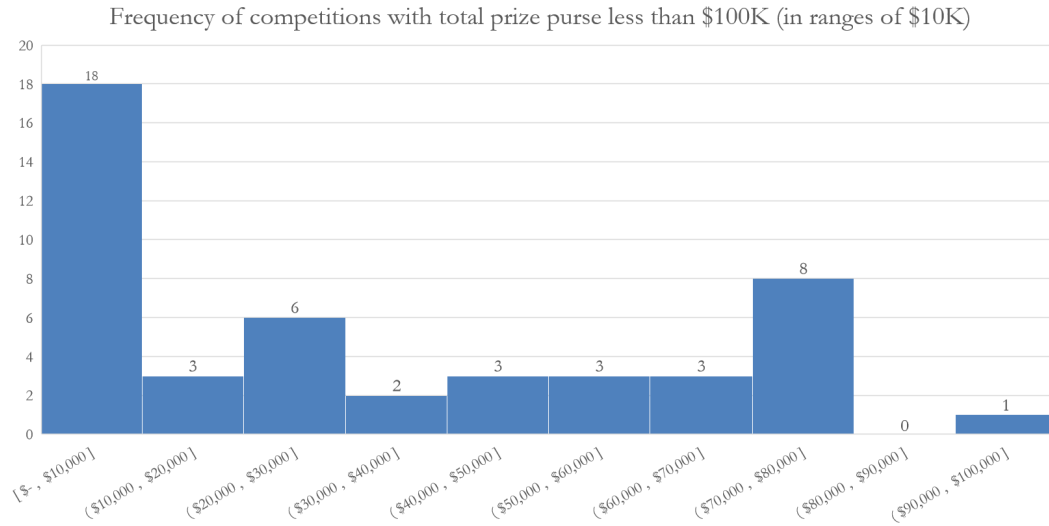
¹²¹ Interview, Executive Director, Private foundation. November 2020.

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- ¹²² Interview, Former Executive, Private corporate foundation. January 2021.
- ¹²³ Interview, Scholar, Private university. March 2021.
- ¹²⁴ Supra, note 98.
- ¹²⁵ Interview, Administrator, Private foundation. November 2020.
- ¹²⁶ Supra, note 86.
- ¹²⁷ Supra, note 84.
- ¹²⁸ Interview, Executive Director, Private foundation. February 2021.
- ¹²⁹ Interview, Senior Executive. Private foundation and prize administrator. February 2021.
- ¹³⁰ Interview, Manager, Corporation. March 2021.
- ¹³¹ Ibid.
- ¹³² Interview, Senior Executive, Private foundation. November 2021.
- ¹³³ Interview, Director, Prize administrator. October 2020.
- ¹³⁴ Supra, note 63.
- ¹³⁵ McKinsey & Company. “And the winner is...” Capturing the promise of philanthropic prizes. McKinsey & Company. 2009.
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Appendix A: Figures on prizes and competitions from 2020 by issue area

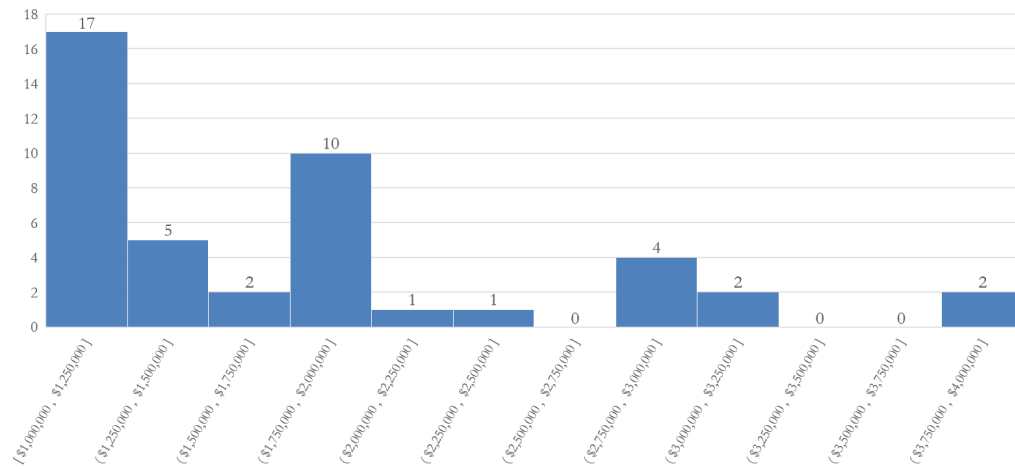


Appendix B: Histograms of original dataset

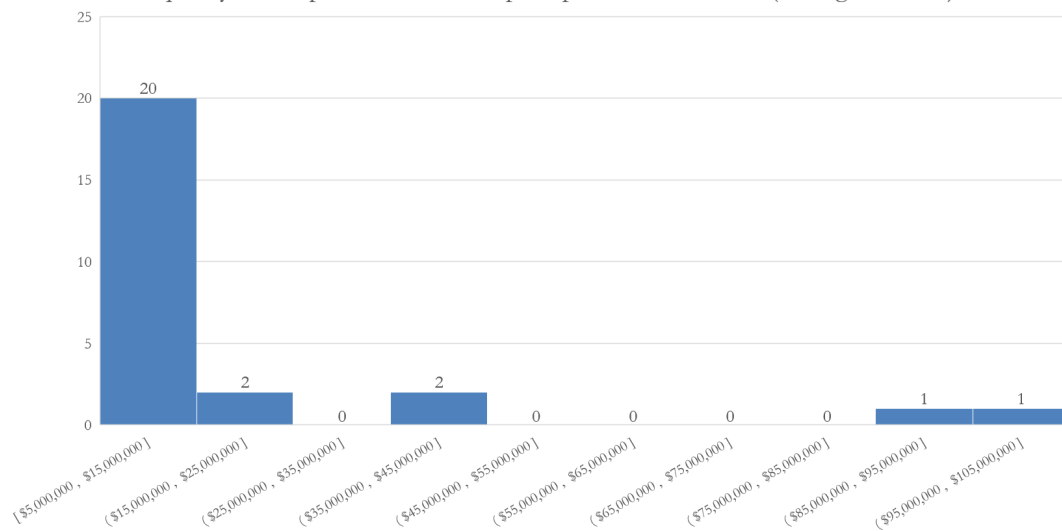


(Appendix B continued)

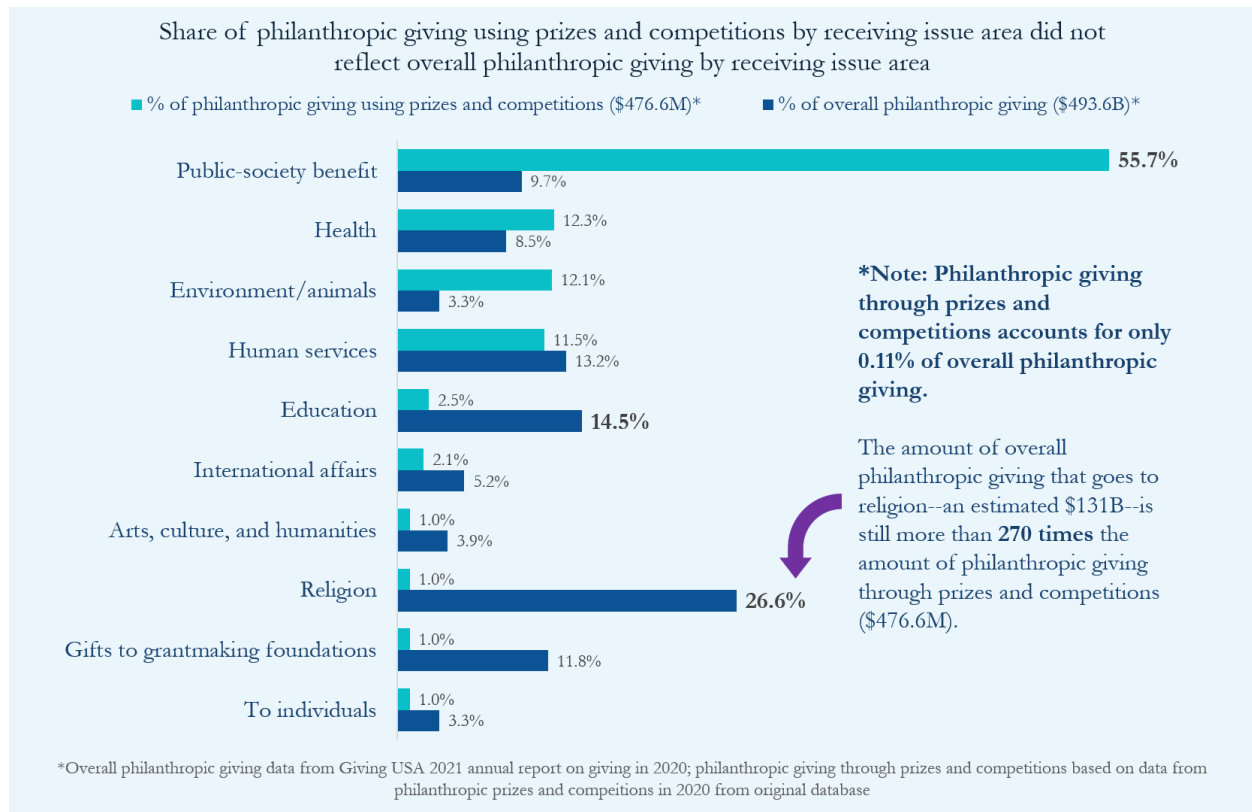
Frequency of competitions with total prize purse between \$1M and \$5M (in USD in ranges of \$2.5M)



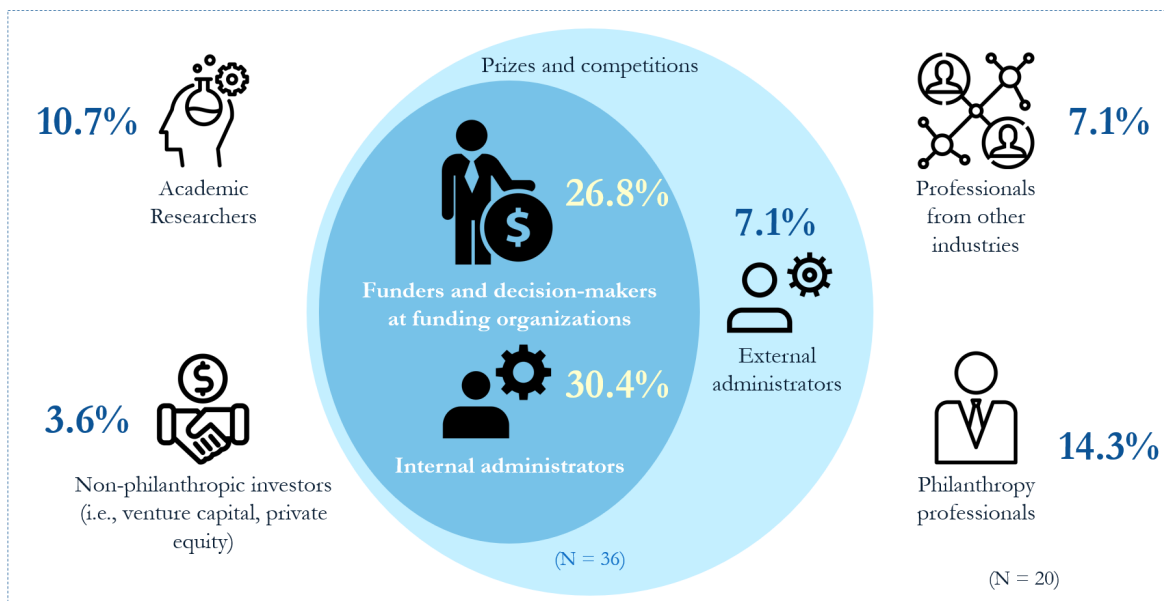
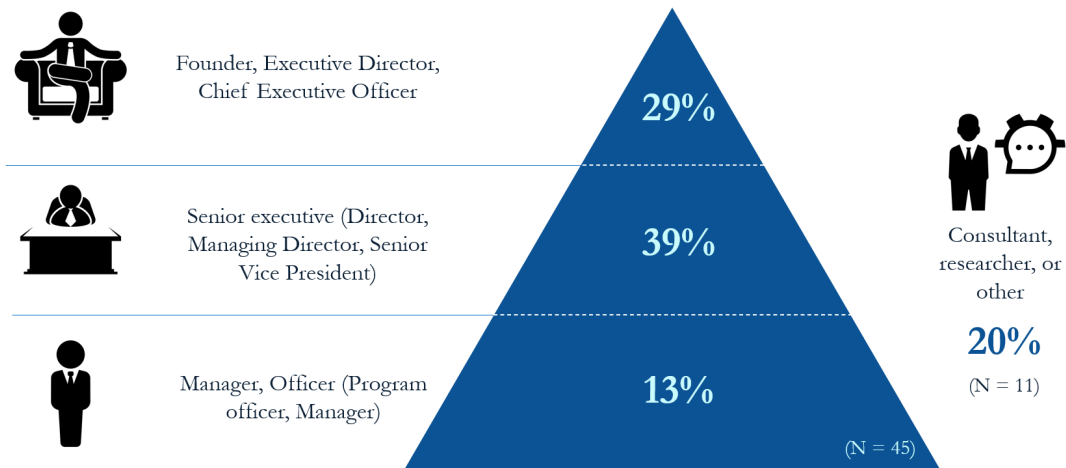
Frequency of competitions with total prize purse \$5M or more (in ranges of \$5M)



Appendix C: Share of overall philanthropic giving versus giving using prizes and competitions by issue area



Appendix D: Interviewees by role and industry



Appendix E: Sample list of external administrators

Name	Year founded	Site	Description ^{xlvii}
Best in Crowd (Capital Consulting Corporation)	2011	Bestincrowd.com	“Welcome to our network of innovators, engineers, developers and builders with a common goal to create brilliant solutions for data and human created design problems.”
Carrot (formerly Common Pool)	2010	Carrot.net	“A competition platform that puts many minds to work solving tough problems.”
InnoCentive (a Wazoku brand)	2005	Innocentive.com	“Solve the world’s greatest challenges. Harness the power of our global community of 500,000 problem solvers, our global reach to millions more, all combined with our Challenge Driven Innovation™ methodology.”
Lever for Change	2019	Leverforchange.org	“Lever for Change makes positive change in the world by unlocking funding for solutions to global challenges. We address issues donors care about through custom competitions and our network of high-impact problem-solvers.”
MIT Solve	2016	Solve.mit.edu	“MIT Solve is a marketplace for social impact innovation with a mission to solve world challenges.”
Nesta	Founded in 1998; became an independent charity in 2012	Nesta.org.uk	“We are Nesta. The UK’s innovation agency for social good. We design, test and scale new solutions to society’s biggest problems, changing millions of lives for the better.”
NineSigma	2000	Ninesigma.com	“We make innovation happen. We find. We connect. We build your innovation capabilities.”
OpenIDEO (IDEO)	2010	Openideo.com	“We bring people together to create a better world. Want to solve problems that matter? You’re in the right place.”
Skild	2002	Skild.com	“Skild offers the tools and expertise you’ll need to efficiently execute every aspect of your successful challenge experience.”
TopCoder	2001	Topcoder.com	“Top technology freelancers on-demand. Freedom to start and execute faster.”
XPRIZE Foundation, Inc.	1994	Xprize.org	“A global future-positive movement of over 1M people and rising. A trusted, proven platform for impact that leverages the power of competition to catalyze innovation and accelerate a more hopeful future by incentivizing radical breakthroughs for the benefit of humanity.”

^{xlvii} Considered the first descriptive statement or “elevator pitch” descriptor (150 words or fewer), often found on the landing page of the website, as the first sentence in a mission statement, or the header on the “about us” page.



Lever for Change connects donors with bold solutions to the world's biggest problems—including issues like racial inequity, gender inequality, access to economic opportunity, and climate change. Using an inclusive, equitable model and due diligence process, Lever for Change creates customized challenges and other tailored funding opportunities. Top-ranked teams and challenge finalists become members of the Bold Solutions Network—a growing global network that helps secure additional funding, amplify members' impact, and accelerate social change. Founded in 2019 as a nonprofit affiliate of the John D. and Catherine T. MacArthur Foundation, Lever for Change has influenced more than \$1 billion in grants to date and provided support to more than 145 organizations. To learn more, visit www.leverforchange.org.

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