

The missing Nobels: Mapping the landscape of prestigious scientific prizes

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Abstract

Prestigious recognition prizes, like the Nobel Prizes, can shape scientists' career decisions and how science is seen. Yet the landscape of such prizes is not well understood. We screen roughly 2,700 international scientific prizes and rank the 99 most prestigious using a novel prestige index. Recognition is unevenly distributed across fields: physics, life sciences, and mathematics are heavily recognized relative to field size, while computer science, engineering, psychology, and the social sciences are under-served. Only three of the 99 prizes target early-career scientists.

Introduction

In 1973, two computer scientists, Vinton Cerf and Robert Kahn, set out to solve a problem: how could machines on different networks talk to one another? Their solution, a set of rules called TCP/IP, became the basis of the Internet. Today it connects nearly every device, lab, and library on Earth. Yet no Nobel honors it: the Nobel categories were fixed by Alfred Nobel’s 1895 will, long before the information age, and computing has no home among them [1, 2].¹ Recognition instead came from prizes created to fill such gaps (e.g., the Draper Prize and the Turing Award), but only in the early 2000s, roughly three decades after the work. Their story illustrates how major contributions can go unrecognized by established prizes when they fall outside traditional fields, and how long it can take for new prizes to fill the gap.

This paper takes this “Missing Nobel” idea as its starting point. It offers a novel systematic mapping of the landscape of prestigious scientific prizes and uses that map to diagnose institutional gaps: which fields receive the widely legible recognition that prizes provide, which career stages are rewarded, and how those rewards are structured. To answer these questions, we screen roughly 2,700 international scientific prizes and then select and rank the 99 most prestigious.

Prestigious prizes can shape how science is seen, funded, and pursued. Prizes function as both incentives, altering effort and risk-taking, and signals, updating beliefs about quality for funders, institutions, and the public. After an award, topics associated with a scientific prize grow faster and prizewinners’ earlier publications also gain more citations [3–6]. Because prize-giving institutions face reputational consequences for poor choices, these signals can carry information beyond what bibliometric indicators alone reveal: Turing Award and Nobel Prize laureates are rarely among the top-1% most-cited researchers in their fields (as we verify in our data); what distinguishes prizewinners is not volume of output but unusually innovative combinations of ideas [7]. Scientists in fields or career stages that are underserved by such prizes may lack these incentives and signals. Without a systematic map of where recognition concentrates, we cannot assess whether the signals guiding scientists’ career decisions are well-calibrated to the current structure of science.

To identify the most prestigious prizes, we build on previous work [8–10]. We focus on *recognition* prizes (those given for ex-ante unspecified contributions, like the Nobels) in science and technology. We adopt a broad definition of a recognition “prize”: besides cash-valued awards, we include honors such as fellowships and invited lectureships. We then include a prize in our list if it meets at least one of four criteria: appearing on three or more authoritative lists compiled by governments and ranking organizations; receiving high average ratings in prior expert surveys [9, 10]; having recent winners who are predominantly among the top 1% most-cited researchers in their fields; or averaging at least 40 daily Wikipedia page views. We apply these selection criteria to a list of roughly 2,700 prizes. To avoid country-specific biases, we limit our attention to prizes open to scientists worldwide. Our method identifies the 99 most prestigious international prizes in science and technology.

To rank prizes, we build a novel measure of prize prestige. We conceptualize prestige broadly, as esteem and visibility within the scientific community and beyond it. Historical studies of scientific awards treat these as intertwined, since excellence is recognized and performed publicly, as well as achieved [11–13]. Our five indicators cover those different dimensions, as well as prize money and age. We use expert survey ratings [9, 10], which capture peer esteem; Wikipedia page views, which capture demand for prize information [3, 14, 15]; media news mentions (from the MediaCloud database), which capture the broad supply of prize information; monetary value, which proxies institutional investment; and prize longevity, which proxies track record. Under the assumption that prize prestige explains most of the variance in these indicators, we extract their first principal component and use it as our prestige measure. Consistent with this hypothesis, this first principal component loads positively on every indicator and explains 49% of the total variance. The subsequent components, by contrast, capture trade-offs such as old-but-modest versus young-but-lavish prizes. This yields a transparent, theory-based prestige measure that allows direct comparison across disciplines.

¹The will fixes the set of categories but not their boundaries: “one part to the person who made the most important discovery or invention in the field of physics; one part to the person who made the most important chemical discovery or improvement; one part to the person who made the most important discovery within the domain of physiology or medicine [...]” [1]. The boundaries have some give: the 2024 physics prize honored John Hopfield and Geoffrey Hinton for foundational work on machine learning, but the award was made in physics, on the grounds that neural networks connect to statistical physics.

The resulting map of scientific recognition reveals three patterns. First, prestige is being remade in real time: half of the top 99 prizes were created after 1980 and one-third after 2000. Aggregate annual prize money has grown even faster, roughly tripling since 2000, so a long history is not required to reach the top, although doing so seems increasingly expensive.

Second, coverage across fields is uneven even after normalizing by field size. To measure how much recognition each field receives, we assign each recent prizewinner (2015–2024) to a field based on their full publication record. We then compare the number of recognitions per field against measures of field size. As our two main measures of field size, we use the number of research academics at the top 150 US universities and the annual flow of new US PhDs—these proxy for the distribution of scientific work and investment across fields, or the number of potential prizewinners. Physics, the life sciences, and mathematics are the most recognized fields under both denominators; computer science, engineering, and the social sciences (excluding economics) are consistently under-served. Using US federal science funding shares or worldwide publication counts to measure field size, we find similar unevenness.

This unevenness across fields arguably has consequences for scientific progress, as (i) prizes shape the incentive structure that scientists face and (ii) prizes make scientific contributions legible across disciplinary boundaries. Other rewards, such as salaries and grants, may compensate scientists in fields with few prizes, but they do not make the field’s contributions visible to outsiders. Nor do we find such compensation: fields with fewer prizes show neither more patent-cited research nor higher private-sector pay. For instance, prizes can shape what non-scientists see as the most important disciplines and findings, affecting the popularity of public funding decisions and young people’s aspirations. Prizes can also inform scientists about what findings and methods are relevant in adjacent disciplines, allowing new methods to diffuse into a discipline and leading to new breakthroughs [16]. Fields with few or no prizes do not produce these widely legible signals.

Third, the incentive design of recognition prizes is narrow and backward-looking. Only three of the top 99 awards target early-career researchers (defined as prizes imposing any temporal restriction on eligibility, such as an age limit or a focus on recent work). Early-career prizes are arguably more socially valuable than late-career awards because they can function simultaneously as pull incentives—motivating effort through the prospect of status [17–20]—and as push incentives, easing resource constraints at the career stage when scientists are most productive [21] yet most funding-constrained [22]. Prizes are also narrow in how many people they name: the 784 awards made in 2015–2024 recognized 1.9 individuals on average, and 29 of the 99 prizes never divided an award, although science is increasingly done in teams. Beyond who is recognized, prize structures are almost completely backward-looking: of the 91 prizes with a monetary component, only four impose any conditions on how the money is spent. The remainder are one-time lump-sum payments with no link to future research output, mentorship, or milestones toward practical use.

We also note that prize prestige may not track research merit, and provide evidence. We compare where laureates are based with where each field’s most-cited researchers are: prizes with a national awarding body recognize domestically based researchers 40% more often than that benchmark implies, although these national biases mostly offset in the aggregate. Regardless of exactly how biased these prizes are, the gaps we document are still real, and, given that prize funding remains a popular endeavor, we provide guidance on how recognition prizes could better serve science.

This paper builds on two strands of prior research. First, it relates to the literature on *inducement* prizes—rewards offered ex ante for solving a specified problem. From the eighteenth-century Longitude Prize to modern technology challenges, such contests have been analyzed as mechanisms to direct R&D effort toward socially valuable goals [23–25]. A central lesson of this literature is that design matters: effectiveness depends on problem definition, eligibility breadth, and the match between prize structure and contestants’ incentives [23, 26–28]. Recognition prizes—awarded ex post for exceptional achievement—have received far less formal analysis, despite serving distinct and arguably broader functions (e.g., they signal quality to funders, employers, and the public; they can shape which fields attract talent). By systematically mapping and ranking recognition prizes, this paper applies the design perspective of the inducement-prize literature to the ex post domain.

Second, we build on previous work on the measurement and mapping of scientific prestige. Earlier studies relied primarily on expert surveys benchmarked against the Nobels [9, 10]; Meho [8] subsequently combined survey rankings with objective criteria to propose prize-based metrics for university rankings. Existing rankings remain limited in several ways. Qualitative lists, such as the one prepared for the International

Congress of Distinguished Awards, are subjective and difficult to update or extend.² Most university-ranking systems that use prizes treat them as binary indicators, without weighting by prestige; the only exception is MosIUR, which uses weights from prior surveys [9]. We extend this literature by consolidating multiple data sources into a comprehensive list of international recognition prizes and a continuous prestige index, and, most importantly, by treating the recognition system itself as the object of analysis.

Materials and methods

We build on previous efforts to systematically identify prestigious academic prizes, particularly the methodology developed by Meho [8]. We apply our selection criteria to the roughly 2,700 prizes that appear in previous listing efforts [8–10], in Wikipedia’s lists of prizes, or in the list of prizes considered eligible for UK immigration, and identify the 99 most prestigious academic awards using four criteria.

Identifying recognition prizes

To focus on recurring scientific prizes of a truly international character recognizing individuals, we exclude prizes that:

- Have strict citizenship or national origin requirements
- Have only been given to individuals from or working in a single country in the last 10 years (or last 20 if given every two years)
- Did not distribute any awards in the past 10 years
- Lack accurate information on winners for the past decade (e.g., because there is no webpage for a prize or because information is very incomplete)
- Primarily recognize contributions in philosophy, education, or non-science fields
- Do not have systematic prizewinner selection criteria (e.g., a single individual selects the prizewinners, without an ex-ante specified scoring rule)
- Tend to recognize institutions rather than individuals

These criteria exclude widely recognized honors such as the MacArthur Fellowship (only given to residents or citizens) or the John Bates Clark Medal (only given to US-based researchers) in favor of describing a general and international picture of the recognition landscape.

We then select prizes that meet at least one of four criteria. First, we consider seven authoritative lists of prestigious awards compiled by government agencies, university ranking organizations, and academic publications (Table S1); prizes appearing in at least three of these lists meet this criterion (42 prizes). Second, we incorporate expert survey data from two surveys [9, 10] that received responses from 391 prizewinners and 536 academic leaders and highly cited researchers, respectively; prizes qualify if they received an average importance rating of at least 0.5 relative to a Nobel Prize and appeared in at least one authoritative list (55 prizes). Third, we take every prize that appears in at least one of the seven lists or was rated in either survey (the candidate pools for the first two criteria) and include those whose recent winners are predominantly (more than 50%) among the top 1% most-cited researchers in their fields, as measured by the Clarivate Highly Cited Researchers list (53 prizes). This citation criterion ensures that we do not miss prizes that consistently recognize the leading contributors of a field even when the prize itself is less visible. Fourth, we collect data on Wikipedia page views from 2020 to 2025; prizes averaging at least 40 daily views (the top 5% among the 2,700 prizes screened) qualify (26 prizes). Averaging over six years smooths over both the attention peaks near announcements [29, 30] and the heterogeneity in how much visibility each prizewinner attracts, which varies with how easily their discoveries are communicated, their personalities, and

²The ICDA is a professional association for prize-giving organizations that maintains a roster of awards meeting its standards for administrative excellence.

other attributes [13].³ Table S2 reports how many prizes meet each criterion and how many meet no other. The 99 prizes are awarded by organizations in 18 countries and by three international bodies (Table S3): US organizations award 33 of them and 33% of the 2015–2024 recognitions, European organizations 45 and 43%, and organizations in Asia and the Middle East 16 and 18%. No prizes given in mainland China make our list.

Prize data

For each prize meeting our inclusion criteria, we record the year it was first awarded, its periodicity, recipients per award, and the cash value. A language model assisted the extraction and every entry was checked by hand against official sources. Prize money includes research funds, if any; money per winner divides it by the number of recipients, and money per year by the award interval. We also code each prize’s awarding organization, its country, and the type of funding source (philanthropic, corporate, learned society, government, or university) from statutes, websites, annual reports, and press announcements (see the note to Fig S11 for details). For each prize we also list every recipient from 2015 to 2024 from the awarding body’s own records and match each recipient to an OpenAlex author profile.⁴

Ranking prizes

To rank the prizes selected by our inclusion criteria, we combine five prestige indicators: expert survey ratings [9, 10], Wikipedia page views, media news mentions, prize age, and prize money. We extract a signal from these indicators using principal component analysis, the idea being that the major common factor behind those indicators is prize prestige, which is captured by the first principal component.

To construct the indicators, we take the logarithm of prize age, daily page views, media mentions, and prize money.⁵ Media news mentions are measured as the number of unique news articles mentioning each prize name in the Media Cloud Online News Archive [31] between January 2020 and December 2025, the same window used for Wikipedia page views. Media news mentions are counted based on Media Cloud’s national source collections (about 15,000 news sources in 100+ countries), queried using the strategy described in Table S4. The pairwise correlations between our prestige indicators (Table S5) show that media news mentions and Wikipedia page views are the most strongly correlated pair ($r = 0.74$), followed by expert survey ratings and page views ($r = 0.68$), while prize age and money per prize are negatively correlated ($r = -0.47$).

The first principal component of our normalized indicators explains 49% of total variance and loads positively on all five indicators, supporting a single-factor prestige interpretation; its weights are reported in the Results section.⁶ The final prize ranking and tier system are derived by using the PCA weights to create a prestige index. We further classify prizes into three tiers. Summing recipients per year over all listed prizes gives the total number of recognition events they generate. After ranking, we assign a prize to Tier 1 if cumulative recognition events up to and including that prize do not exceed 10% of the total. Tier 2 contains the subsequent prizes whose cumulative share does not exceed 30%, and Tier 3 contains the remainder.

Measuring prize density

To identify which fields are under- or over-supplied by top international prizes, we compare the supply of prizes in a field to two different proxies of field size. As our primary measure of field size, we use the number

³Views of pages covering several prizes are allocated in proportion to prize money, and when a prize is only discussed as a section of a larger page, by the share of the page devoted to it.

⁴We code only the people a prize names as laureates, since they are the individuals directly recognized. Only four awards in 2015–2024 involved teams. The Breakthrough Prize in Fundamental Physics named the leaders of the supernova search teams (2015) and of the neutrino-oscillation experiments and the LIGO collaboration (2016), and those leaders are the laureates we count. Its 2020 award to the Event Horizon Telescope Collaboration and the Royal Society’s 2022 Copley Medal to the Oxford–AstraZeneca vaccine team went to the collaboration as a whole; each counts as one recognition event, assigned to the field of the scientist who accepted it. We revisit this issue in the Discussion.

⁵For daily page views, media mentions, and prize money, we add one before taking the log to avoid infinities.

⁶For the 23 prizes lacking survey ratings, we predict missing values using available indicators and field information. Specifically, we regress survey ratings on quartile indicators of page views, prize age, and money per award period, field fixed effects, and indicators for meeting inclusion criteria 1 and 3. We then apply a 50% discount to these predicted survey ratings, since omission from the surveys likely signals lower standing.

of research academics teaching in PhD programs at the top 150 US universities (according to the 2019 US News ranking), drawing on faculty data from Angeli and Lowe [32], who collected the universe of research academics in those programs and matched them to OpenAlex academic profiles.⁷ Of the roughly 100,000 academics found, 87,000 are matched to an OpenAlex profile. Then, for each academic, we identify the OpenAlex subfield containing most of their publications. As a secondary measure of field size, we use the number of new PhDs produced in the US in each field, extracted from the 2023 Survey of Earned Doctorates by the National Center for Science and Engineering Statistics. The data covers all research doctoral degrees, 99% of which are PhDs.

To calculate the number of prizes directed to each field, we list all prizewinners from 2015 to 2024 and also assign them to fields based on the subfield in which they have the most publications. We then group the 252 OpenAlex subfields into 26 fields that are readily interpretable and that harmonize with the PhD student data (the secondary measure of field size). For instance, we group subfields that share substantial institutional overlap (e.g., Physics and Astronomy) or that OpenAlex does not separate cleanly (e.g., the subfields in which political scientists and sociologists work cannot be easily separated, so we keep them together).

We measure prize density across fields by dividing the number of yearly recognition events associated with a field by that field’s size (each co-recipient of a shared prize counts as a separate recognition event, and a researcher who receives multiple prizes is counted once per prize). Because each recognition event is assigned to a field based on the individual winner’s publication record, inter- or multidisciplinary prizes are distributed across fields according to the specializations of their winners. As an additional robustness check, we divide observed yearly recognitions by US federal research funding, which may better capture national and public interest in each field (Fig S1).

Results

Mapping and ranking prestigious prizes

Our methodology identifies the 99 most prestigious scientific prizes, ranked in Table S6. For ranking the prizes, the PCA-based prestige indicator puts a weight of 26.3% on expert survey ratings, 29.8% on Wikipedia page views, 28.5% on media news mentions, 2.1% on prize age, and 13.2% on prize money. This first principal component explains 49% of total variance in our prestige indicators, nearly twice the share of the second component (27%), which loads almost exclusively on prize age (+0.75) and prize money (−0.64)—with near-zero loadings on survey ratings, page views, and news mentions—capturing an old-but-modest versus young-but-lavish trade-off.

These 99 prizes are on average 61 years old and have 78 daily Wikipedia page views (Table 1). They distribute on average USD 306,000 to each of their winners (median USD 167,000), with each prize distributing on average USD 650,000 per year. Together, they distribute about USD 64 million per year.

In terms of ranking, we assign eight prizes to the top tier, twelve to the second, and 79 to the third. The 99 prizes generate about 162 recognition events (one person recognized with one prize) per year. Prizes in computing and electrical engineering, mathematics, and chemistry tend to rank higher in our list, while prizes in other engineering fields tend to rank lower (Table S7). Physics and astronomy has 14 prizes and an average rank close to the overall median; life and health sciences has the most prizes (25). Eighteen prizes are classified as multidisciplinary, with seven further prizes focused on environmental themes.

Our tier-based classification system is largely robust to different weighting schemes. We simulate 1,000 rankings with random weights, showing how the ranking of each prize would vary in Table S8.⁸ Overall, 91% (61%) of prizes fall in the same tier as the one implied by our PCA-based ranking in over 50% (90%) of the simulations. At the top, for prizes like the Nobels and Turing Award, our PCA-based ranking sits tightly between the 5th and 95th percentiles of the random rankings, indicating little uncertainty about how they should be ranked. There is more variation in the simulated ranks of lower-ranked prizes, in good part due to the negative correlation between prize money and prize age.

⁷OpenAlex is an open bibliographic dataset comparable with Elsevier’s Scopus or Clarivate’s Web of Science [33].

⁸Specifically, we draw weights from a Dirichlet(1,1,1,1,1) distribution, which is uniform over the simplex.

Explosion in recognition prizes

The number of established prestigious prizes rose sharply after 1960 (Fig 1), consistent with prior work documenting that the number of scientific prizes in general grew faster than the number of disciplines after 1980 [14]. The pace at which new highly prestigious prizes are created accelerates around the 1960s, showing that while having a long history might increase a prize’s prestige, it is clearly not a necessary requirement for making the top list. Accordingly, there is little correlation between expert ratings and prize age (Fig 2a).

The creation of new prestigious prizes has been driven by diverse actors. Governments established prizes like the Abel Prize (Norway, 2003) and the Queen Elizabeth Prize for Engineering (UK, 2013). Silicon Valley entrepreneurs funded the Breakthrough Prize family, the most visible recent example of a privately founded prize. International organizations like the ICTP and the International Mathematical Union collaborated to create the ICTP Ramanujan Prize for young mathematicians.

The money distributed by prestigious prizes increased even faster. Since 2000, the number of prestigious prizes has increased by about 40%, while the cash values distributed yearly have approximately tripled (Fig 1). Before 2000, growth in yearly prize money seems to more or less match the growth in the number of prizes, but that is probably an understatement since our figures only take into account a prize’s current cash value while cash prizes have likely increased faster than inflation.⁹ Accordingly, we find a strong (negative) correlation between prize age and money distributed per prize awarded (Fig 2b).

Hence, while it has been possible to create new prestigious prizes, the *effective* cost to do so has increased, perhaps because new prizes have to compete for the public’s limited attention with more already-prestigious prizes than their predecessors did. While we do not provide causal evidence that larger purses lead to more prestige, we note that although there is only a modest raw correlation between prize money and online popularity (Fig S2), prize money becomes a statistically significant predictor of page views after controlling for prize age, i.e., 1% more prize money (per award) is associated with 0.08% more page views ($p = 0.04$) and 0.22% more media news mentions ($p < 0.001$). These associations are correlational; reverse causality, whereby more prestigious prizes attract larger endowments, is also plausible.

Gaps across fields

To identify which fields are over- or under-served, we divide the supply of yearly recognitions offered by the 99 top prizes by field size, the latter proxied by the number of researchers in top institutions or PhD students in each field. Several fields are consistently among the most recognized under both denominators. Physics & Astronomy and Microbiology & Immunology show the highest award density per academic, each receiving about five elite recognitions per thousand top researchers (Fig 3). Neuroscience, Mathematics, and Molecular Biology & Genetics also rank in the top seven under both measures (Fig 4). The earth and environmental sciences (Climate & Ocean Sciences, Geosciences, Ecology & Evolution) form a second cluster of well-recognized fields.

At the other end of the distribution, several large fields are consistently under-served regardless of the denominator. Computer science, despite its centrality to modern innovation, receives about 1.4 recognitions per thousand top academics—roughly one-quarter the density of physics—and ranks 10th of 24 fields under the PhD denominator. Mechanical and aerospace engineering and civil and environmental engineering fall below one recognition per thousand academics and per thousand annual PhDs. Biomedical engineering is below one per thousand academics but reaches about 1.2 per thousand annual PhDs. Arguably, there is space for both general and specific engineering prizes. Although artificial intelligence is a rapidly growing field, no prize among the top 99 is specific to it.

Psychology and the social sciences excluding economics are underserved, regardless of the denominator used. Psychology, which accounts for 5% of academics at top universities and 8% of US PhDs, has no field-specific prizes; its low prize density derives entirely from unrestricted multidisciplinary awards. While psychology has some prestigious prizes in the US (e.g., awards from the American Psychological Association or the Society for Industrial and Organizational Psychology), these do not clear the bar in any of our inclusion criteria; the MacArthur fellowship, often awarded to psychologists, is only given to US residents, so

⁹For instance, the inflation-adjusted value of a Nobel Prize in the early 1900s would be about USD 500,000 in 2025.

it is excluded from our list. Political Science & Sociology and Anthropology also sit near the bottom under both measures.

Where the two measures of field size disagree, the discrepancies are informative. Chemistry ranks 4th by academic density but drops to 12th by PhD density, because chemistry departments train many doctoral students relative to their faculty size. Conversely, Economics ranks 14th by academic density but rises to 8th by PhD density, due to its large professoriate.

These inequalities become generally more accentuated if we restrict attention to the most prestigious prizes: Tier 1 prizes alone generate zero recognitions for most fields outside physics, mathematics, life sciences, and economics (Fig S3), and including Tier 2 does not substantially change this pattern (Fig S4).¹⁰ Using US federal research funding as the field-size proxy also places computer science and engineering and psychology below average, while other social sciences are above average under this measure (Fig S1). Using the count of well-cited papers (at least 5 citations, 2018–2020) as the field-size denominator, which may better reflect the global amount of work in each field, yields the same broad pattern as our preferred US-based field-size measures (Fig S5).

Proximity to first principles could explain why some fields receive more recognition. Comte’s hierarchy orders the sciences from most to least fundamental, with mathematics at one end and the social sciences at the other [34]. Recognition broadly follows this order, but differences within the biological sciences illustrate its limits: Microbiology & Immunology has the highest recognition density among the biological fields, whereas Medicine and Agriculture & Food Sciences rank much lower (Fig 3).

Similarly, prizes could be denser in more applied fields or in fields offering fewer market-based rewards. To assess proximity to application, we use the share of a field’s articles cited by US patents, drawing on Marx and Fuegi’s *Reliance on Science* data [35–37]. Across the 26 field groups, recognition density is *positively* associated with this share (Spearman $\rho = +0.47$, $p = 0.016$; Fig S6a), so fields that are more applied are relatively more recognized, not less. Economics and the social sciences cluster at low values of both measures; excluding them weakens the correlation to $\rho = +0.15$ ($p = 0.519$), but does not turn it around. To examine market rewards, we calculate median private-sector salaries of doctorate holders from the 2023 Survey of Doctorate Recipients public microdata, covering all career stages. Across 16 comparison groups covering 24 of our fields, recognition density is also positively associated with salary, although the estimate is imprecise ($\rho = +0.43$, $p = 0.097$; Fig S6b). Hence, although both comparisons rest on a rough classification of fields and may hide heterogeneity, neither supports a general pattern of prizes compensating for weaker market rewards.

Career stages

Early-career prizes can function as both pull and push incentives, making them arguably more socially valuable per dollar than late-career awards. Yet only three among the 99 most prestigious prizes are early or mid-career prizes: the Fields Medal, the ICTP Ramanujan Prize, and the Max Planck-Humboldt Research Award.¹¹ This scarcity of early career prizes could be rationalized if there were ample job and grant opportunities for young scientists [22, 38, 39], or if important discoveries were made only late in careers, but neither condition seems to apply [21, 40].

To better understand this scarcity, and in an effort to increase the signaling value of these prizes, we also provide a list and ranking of early career recognition prizes (Table S9). We construct this list based on prize age and online popularity, since surveys of experts did not include many early career prizes and information about prize money is often sparse for these awards (see the Supplementary Information S2 for details). Our strategy identifies the 68 most prestigious international early career prizes, which produce about 265 recognition events each year.

Four patterns in the early career list stand out. First, most of those prizes seem much less prestigious, or at least attract much less attention. The median early career prize draws 3.4 daily Wikipedia page views,

¹⁰Dropping the prizes included only because of Criterion 3—those prizes that recognize mostly highly cited researchers, which could bias our list towards fields with more entrenched elites—decreases the inequality in field density, but not by much. The 23 prizes that enter the list through that criterion alone are all Tier 3 prizes, concentrated in the life sciences and astronomy. Dropping them reduces the Gini coefficient of field densities from 0.48 to 0.44 (per academic) and from 0.52 to 0.49 (per PhD).

¹¹The Maryam Mirzakhani Prize in Mathematics is described as a mid-career award, but imposes no clear age or career stage limit. Its 2020–2024 recipients were 15–25 years past their PhDs.

against 13.9 for the median prize on the main list. Second, prestige concentrates in mathematics: nine of the ten Tier 1 early career prizes are mathematics prizes, although mathematics accounts for 35% of the prizes on the list and 10% of its recognition events. Third, there is much more heterogeneity in how many people are recognized by each award. On average, the early career prizes generate 1.6 times as many recognition events as the main list, but five cohort programs—the Sloan Research Fellowship (126 fellows a year), the three sections of the Max Planck Society’s Otto Hahn Medal, and the Amelia Earhart Fellowship—account for 72% of them, while 51 of the 68 prizes recognize at most one person a year. Fourth, the list spans several career sub-stages of what is understood as early career, revealing even more heterogeneity. Two-thirds of the prizes are open to established researchers, typically under 40 or 45 or within 10 to 15 years of the PhD, as with the COPSS Presidents’ Award and the Yrjö Jahnsson Award, while 12% go to doctoral students or recent graduates, such as the Otto Hahn Medal, and 19% to postdocs and new faculty, such as the Sloan Research Fellowship.

Incentive design

Finally, we describe the magnitude and type of direct incentives that recognition prizes provide to their winners. There is substantial heterogeneity in how much money prizes distribute: eight prizes do not include a monetary value, and six prizes give out USD 1 million or more per winner. The median prize gives out USD 167,000 per winner (Figs S7 and S8). Hence, most prizes pay their prizewinners less than what they would make in two years in their regular academic jobs. If we see prizes as a sort of performance bonus, these would be one or two orders of magnitude lower than top private market bonuses to CEOs [41].

Despite the high variance in money values, there is minimal variation in how the prize money is paid out. Out of the 91 prizes with an associated money value, only four have conditions on how the money is spent (the Balzan Prizes, which require half the award to fund projects by young researchers; the James Craig Watson Medal; the Max Planck-Humboldt Research Award; and the Tang Prize in Biopharmaceutical Sciences).

Discussion

The recognition landscape is dynamic, but structurally incomplete. Half of the most prestigious prizes are less than 45 years old, showing that new awards can rise to prominence, but gaps persist, particularly in branches of engineering and of the social sciences, and at early career stages. In this section, we discuss prizes as signals and incentives, the possible welfare implications of our findings, and implications for designing and funding prizes in the future.

Prizes as signals

Prizes as indicators of merit. Our ranking measures prize prestige, but institutions often use prizes as evidence of research merit. Awards enter promotion criteria [42], and the European Research Council and NIH invite applicants to report honors and peer recognition [43, 44]. University rankings and some talent-visa programs also rely on prizes [45–48]. How reliably prizes signal merit therefore matters for interpreting and using our ranking.

The selection of prizewinners can reflect factors beyond research merit. Historical studies document the role of political motives and nomination networks in Nobel selections during the twentieth century [2, 11, 12]. Campaigning for candidates and reciprocal favors among selectors could play the same role today, but without archival evidence for the contemporary prizes we study, we can only examine imbalances in recognition. In that vein, some studies have documented gender gaps in prize recognition and tested for bias in award selection [49, 50]. Here, given the international character of our prizes, we use a geographic research benchmark to assess home bias as a potential indication of non-meritocratic influences.

We compare domestic recognition with the share expected from the geographic distribution of highly cited researchers in each field. Our list of prestigious prizes already excludes prizes with citizenship requirements, single-country winner histories, or no systematic selection procedure (Materials and methods). Nevertheless, across the 1,399 recognitions that prizes with a national awarding body made in 2015–2024 to laureates we

could locate, 471 went to laureates based in the awarding country, against 336 expected if laureates were based where their field’s 1,000 most-cited researchers were in the award year.¹² Domestic recognitions thus exceed the citation benchmark by 40%.¹³ The extent of home bias varies across awarding countries and prizes (Figs S9 and S10, Table S10): Japanese awarding bodies recognize domestically based researchers at $7.5\times$ their pool’s share, compared with $1.2\times$ for US-based bodies; 67.7% of the 96 prizes exceed their benchmark.

These national home biases mostly offset in the aggregate (Table S3, final three columns). Across all prizes, researchers based in the United States receive 65.0% of recognitions, close to their 65.0% share of the citation benchmark; the corresponding shares for the United Kingdom are 13.6% and 13.0%. For other countries, recognition departs from the benchmark in both directions: France receives 5.2% against 3.2%, while China, together with Hong Kong and Taiwan, receives 1.8% against 4.2%. A tendency to recognize domestic researchers therefore need not translate into an equally large imbalance in the aggregate geography of recognition, and on average these prizes may still be selecting meritorious researchers.

These comparisons show how the geography of recognition differs from that of citations; they do not identify the mechanisms behind the differences or test whether selection is fair. Citations have their own biases and reflect influences beyond conceptual significance [51, 52]. Prize committees may also recognize qualities that citation totals miss: prizewinners produce more novel combinations of ideas than non-prizewinners with comparable publication and citation records [7].

Even if prizes are not pure indicators of merit, our list and ranking are helpful for two main reasons. First, for this study, the list and ranking allow us to characterize the landscape of prestigious recognition in science and identify gaps across fields and career stages. Second, our methodology can help decision-makers make better use of prizes as signals, as we give a transparent, empirical, and theoretically grounded basis for prestige comparisons. Because our data and methods are available and reproducible, decision-makers can make their judgments more explicit and open to scrutiny, as we exemplify below.

Uses of the list and ranking. Institutions using prize information could draw on this common scale to specify which awards they recognize and how much weight they give them. Next, we use the setting of skilled immigration policies to exemplify possible uses.

Several countries have skilled immigration policies in place, but all the cases we reviewed appear to under-use prize information. The UK Global Talent route uses an explicit list: holders of a listed prize can apply without an endorsement [47]. The list seems arbitrary: of the 73 prizes on the list examined for this study, 37 appear among our 99 most-prestigious prizes.¹⁴ Other countries such as the US, France, and Australia are unclear or excessively restrictive about which prizes count. The US EB-1 category refers only to “a major, internationally recognized award” in its eligibility criteria [48]. Prize information could also be one input to points-based immigration systems, with points increasing by tier (our uncertainty estimates support comparisons across broad tiers more strongly than small differences in rank). The Canadian skilled immigration system, for instance, seems to completely disregard scientific prizes, prestigious or otherwise. Our prize rankings can be used to streamline procedures and provide clarity about which international prizes should be taken into account. If these “talent-visa” programs committed to a specific list of prizes, a significant source of uncertainty would vanish and prizewinners could become more willing to apply.

Rank gaming and value capture. These uses also carry risks. When a measure becomes a target, behavior may change in ways that weaken its informational value [53, 54]. Nguyen [55] describes a related problem as value capture: a simplified measure can displace the underlying objective. For instance, decision-makers that need to evaluate research merit might instead simply look at how many prizes a certain researcher has. A ranking adds further risks: not only may prizegivers attempt to game it, but observers may also substitute simpler prestige comparisons for complex merit judgments. Besides cautioning readers about

¹²For the citation benchmark, we count citations to papers with at most 20 authors to limit the influence of large consortia. Citations and affiliations are measured as of the award year. See the note to Fig S9 for details.

¹³Using as benchmark the top 0.1% or 0.05% of each field’s cited authors, so that benchmark size scales with field size, the ratio is $1.48\times$ or $1.42\times$, against $1.40\times$ with the top-1,000 benchmark.

¹⁴The other 36 prizes on the UK list are mostly given by UK professional associations (22) and do not make it into our list for various reasons (e.g., five are in non-scientific fields, a few are given only to UK residents, others do not clear the bar in terms of our prestige indicators). Moreover, only six of the 73 prizes can be considered early- (or mid-) career prizes, and only one of those six, the Fields Medal, appears in our early career prize list.

these risks, we hope to alleviate them by sharing our methods and data, making it easier for others to adapt them to their needs and to scrutinize them. We favor comparisons across broad tiers over small differences in rank, and the use of prize information alongside substantive assessment.

Prizes and scientific progress

Besides providing signals, prizes create incentives. The prospect of status and monetary rewards can attract effort toward particular problems and fields [17–20]. Recognition may also reinforce inequalities or redirect effort away from more valuable work.

Effects of prizes on science

Prizes can affect both recipients and the wider allocation of scientific effort. The literature points to three related effects. First, prizes can concentrate attention and resources among scientists who are already well recognized. In a network of roughly 3,000 scientific prizes, 64% of prizewinners receive more than one award, and recognition has become more concentrated over time [14]. Awards also increase the attention paid to winners’ earlier work [4]. Some of this attention comes at the expense of others: following an HHMI appointment, related papers by non-recipients lose citations relative to comparison papers [56]. These patterns are consistent with a “Matthew effect,” but need not imply a loss to science (e.g., awards may direct attention and resources toward more valuable work).

Second, recognition can affect winners’ research. Evidence on subsequent publication output is mixed across studies [5, 57–59]. For instance, recipients of the John Bates Clark Medal publish more after the award relative to a synthetic comparison group [5], while Fields medalists publish less but explore more new topics, relative to other leading mathematicians [59].

Third, prizes can attract researchers to a field. Jin, Ma and Uzzi [3] find that prizewinning topics subsequently attract more entrants and produce more papers and citations than topics with similar prior growth. Hence, prizes could change the allocation of scientific effort beyond their effects on individual recipients. Whether this redirection is a net benefit depends on whether prizes reveal useful information (e.g., about the future social importance of a field) or not.

Taken together, these studies show that prizes can have consequences for winners and their fields, but do not establish their net effect on scientific progress. In particular, the studies we review examine recognition by existing awards, not the effect of creating a new prize relative to using the same resources elsewhere. The design proposals below should therefore be read as possible ways to improve recognition, not as evidence that expanding the prize system would increase welfare.

Do field coverage gaps matter?

Prizes complement rather than replace grants and other forms of scientific support. As fields may differ in their reliance on prizes relative to other incentives (and in the value that each incentive generates), the inequality in the recognition provided by prestigious prizes by itself does not imply that fields are providing too few or too many incentives to their scientists. The positive or null associations between market rewards and prize density reported in the Results section suggest that the market does not supply these alternative rewards, but compensation could still occur in other ways.

Because prizes are widely legible (e.g., in comparison to grants), prizes produce information reaching beyond the realm of current practitioners. In this case, inequality in field coverage can be particularly relevant. As discussed above, the uses of prizes in hiring, funding and immigration make their distribution consequential even when their net welfare effects are uncertain. Three further channels may be relevant. First, the legibility of prestigious prizes allows them to be used as a tool to display canonical, key findings to the public, increasing the salience of a scientific consensus. In fields without prestigious prizes, it may be harder for the public to distinguish the consensus from the fringe. Second, prizes can raise the status of a field and lead the young to pursue scientific subjects. Uneven recognition may therefore affect which fields provide visible role models. Third, scientists across disciplines can also benefit from richer prize signals. For instance, if prizes in an adjacent discipline highlight a useful methodology, that can lead to new breakthroughs in other fields. Krauss [16] documents the importance of methods developed in other disciplines for Nobel-recognized

breakthroughs in economics, illustrating the potential value of such diffusion. These channels motivate attention to the gaps; they do not establish that equal coverage would be optimal. Of course, if the value of legibility outside the field varies across fields, the inequality in coverage may not imply an inefficiency.

New and better prizes

As prize creation remains a popular endeavor, we now discuss the implications of our findings for future prize design. Conditional on funding a prize, a funder can seek to preserve its informational benefits while addressing specific limitations, such as late recognition or the exclusion of contributors. These changes involve trade-offs, which must be evaluated case by case. We start by describing how the most prestigious prizes have been created, which frames the discussion.

Recognition prizes have been a mostly private endeavor, and they are a relatively cheap part of the system of incentives in science. Philanthropic or corporate money financed 75% of the prizes founded before 1980, 82% of those founded in 1980–1999, and 77% of those founded since 2000 (Fig S11). In total, our prestigious prizes distribute about USD 64 million annually, 0.03% of US federal R&D obligations [60]. Hence, there is no major trade-off between the public funding of science and the funding of recognition prizes.¹⁵

The prizes on our list were created when their fields were already well-established: even the quickest arrived a decade or two after their fields formed.¹⁶ A young field is therefore recognized, when it is, by the prizes of older fields whose scope covers it, as artificial intelligence is by the Turing Award. A field that falls outside the scope of every existing prize may wait decades for one of its own. Founders of new prizes may look for such fields, or design their prizes flexibly enough to allow the recognition of new rising fields.

Case studies of successful new prizes show that, even recently, it was possible to create “Nobels” for fields without them. For instance, the Queen Elizabeth Prize for Engineering (26th in our ranking) and the Abel Prize in Mathematics (7th) were both established in the 2000s. Both prizes were created with government backing, the less common route, and each offers substantial prize money (the Abel Prize awards NOK 7.5 million, roughly USD 750,000; the Queen Elizabeth Prize awards GBP 500,000, roughly USD 650,000). Hence, given enough resources and institutional credibility, it is possible to create successful, Nobel-like prizes. Nevertheless, not all fields have succeeded in creating Nobels. In psychology, no field-specific international prize meets our inclusion criteria, leaving a gap that prospective funders could consider.¹⁷

Next, we consider early career prizes. The Fields Medal, given to mathematicians under 40, is the only early career prize in the top tier. Most other fields lack a highly prestigious early-career award, but we see at least three pathways to fill those gaps. First, it is possible to create completely new prestigious early career prizes; the New Horizons prizes in Physics and Mathematics (first given in 2013 and 2016) demonstrate this path, drawing funding and visibility from the Breakthrough prize family and offering USD 100,000 per prize, which may be shared by multiple recipients. Second, it is possible to convert already-prestigious prizes into early career prizes, as shown by the transformation of the Max Planck Research Award into the Max Planck-Humboldt Research Award, which now targets researchers within 15 years of their PhD and offers 1.5 million euros in research funds. Third, existing early-career prizes are often underfunded and can benefit from more support; strikingly, the Fields Medal, which we rank 5th among all prizes in prestige, offers only 15,000 Canadian dollars in prize money. Using this strategy, funders may be able to raise existing early career prizes to higher levels of prestige relatively quickly, as many underfunded prizes already have a history of excellence.

One difficulty in establishing prestigious early career prizes is that top contributors are hard to identify early enough. Nine of the ten Tier 1 prizes in our early career list are in mathematics. This concentration is

¹⁵Private interests may seek to manipulate scientific progress by funding fields that are closer to market applications, but we do not see correlational evidence for that. Weighting by recognitions in 2015–2024, the share of articles cited by patents in the winners’ fields is 7.7% for prizes whose purse is privately funded in the latest award cycle and 7.9% for other prizes. Prestigious prizes also show no tendency of becoming privately-funded later in their histories as, on net, among the prizes whose funder changed, the number of privately funded ones decreased by two.

¹⁶The Tyler Prize (1974) came nine years after the first environmental studies degree program, the Von Hippel Award (1976) eighteen years after the first materials science department, the Kavli Prize in Nanoscience (2008) eighteen years after the field’s first journal, and the Turing Award (1966) nineteen years after the Association for Computing Machinery was founded.

¹⁷Although we do not include prizes in the field of education in our list of top prizes, the case of the Yidan Prize in Education shows what is possible. The Yidan prize was first given in 2017, but already has some notable prestige and visibility, with 15 daily page views, and no obvious close competitor in its field. The Yidan prize also presents its winners with prize money and R&D funds averaging about four million dollars per year.

consistent with early contributions being easier to identify when they are self-contained and attributable to individuals, which may be harder in more multi-disciplinary fields. Nevertheless, cohort-based awards show that it is possible to recognize large numbers of individuals over several fields: for instance, the Sloan Fellowship, which accounts for 48% of the recognitions created by prizes in our early career list, is awarded to multiple economists, neuroscientists, and molecular biologists every year.

A further margin is how many people a prize recognizes. Science is increasingly done in teams, particularly its highest-impact work [61], yet the 784 awards in our sample named 1.9 individuals on average, and 29 of the 99 prizes never divided an award during 2015–2024. Limits on recipients can exclude contributors to joint discoveries [62, 63] and may weaken incentives to collaborate [64, 65]. Recognition can also change the subsequent allocation of credit: after a Nobel award, citations to the prizewinning work become more closely associated with the laureate than with coauthors [62]. Funders could consider recognizing teams or named contributions, without requiring committees to allocate joint credit to a few individuals. Wider recognition is feasible: the Breakthrough Prize in Fundamental Physics has honored the 347 members of the Event Horizon Telescope collaboration (2020) and the three LIGO founders together with 1,012 further contributors (2016), and the Royal Society’s 2022 Copley Medal went to the Oxford–AstraZeneca vaccine team. In our data, prestige is positively correlated with recipients per award ($r = +0.29$, $p < 0.01$), so, although increasing the number of winners may dilute a prize’s prestige, prizes that name more people can still rank among the most prestigious.

Finally, prizegivers interested in accelerating scientific progress could complement recognition with incentives for subsequent work. While over half of top CEOs’ compensation comes in the form of stock and options [41], most recognition prizes do not tie payments to subsequent research. Grants can support future work, but evidence points to limits on their capacity to expand [66] or redirect [67] research output. Fellowship-style awards that combine recognition with multi-year research support, such as the Sloan Fellowships or HHMI Investigatorships, offer a possible template. Funders may also incentivize applications of certain discoveries. For instance, a prize for new therapies could include an incentive akin to an advance market commitment, in which the prizegiver promises in advance a reward if the therapy meets actual market demand; prizewinners would then have an incentive to direct their research toward guaranteeing that a technology reaches the public [24]. Mentorship of younger scientists could also be incentivized, either similarly to the Balzan prizes or in the form of bonuses for supervising dissertations. Such conditions may encourage follow-on work but also redirect effort toward easily measured outcomes, which may not be optimal, so these rewards need careful design.

Conclusions

The gaps we document describe the distribution of prestigious recognition, not an optimal allocation of rewards. Subject to the caveats discussed above, our analysis points to three design principles for future scientific prizes. First, recognition could adapt to the structure of modern science. Breakthroughs increasingly arise at the intersections of established disciplines, yet most prizes remain tied to legacy field boundaries. Future prizes could rotate across emerging fields, allowing prestige to track where discovery actually occurs, and recognize joint contributions more broadly.

Second, prizes could accelerate future work, not merely commemorate past achievement. Early- and mid-career scientists stand to gain the most from recognition, yet almost no top prizes target them. Linking awards to research continuation grants, mentorship, or milestones toward practical use could shift prizes from one-time honors toward sustained support.

Third, coverage could broaden. Engineering, computer science, psychology, and the social sciences remain underrepresented among top prizes, as do scientists working outside traditional research powerhouses. Philanthropists and institutions creating new prizes could address these gaps directly—and our data show that doing so is feasible, since half of today’s most prestigious awards are less than 45 years old.

Data and code availability

Replication code and data can be found at

<https://github.com/deivisangeli/gt1-prizes-replication-v14> and archived on Zenodo before publication (reserved DOI: 10.5281/zenodo.22721355).

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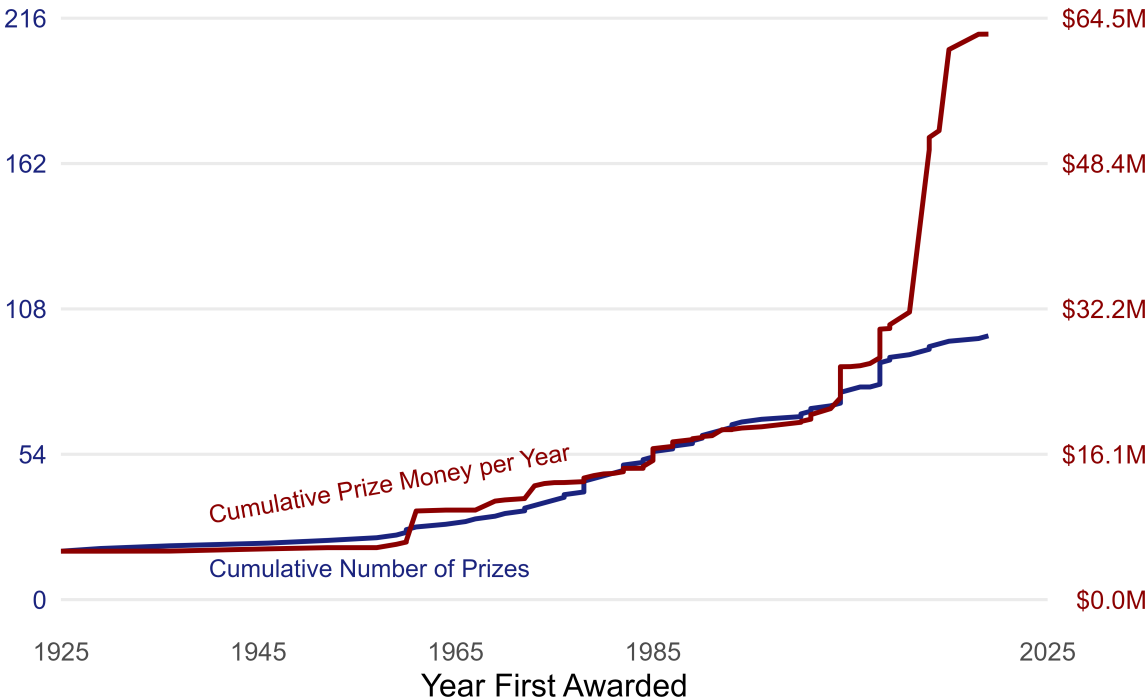
Tables and Figures

Table 1. Summary Statistics

Variable	Median	Mean	SD	Min	Max	N
Survey Rating	0.57	0.61	0.16	0.30	1.00	76
Daily Page Views	13.9	77.9	208.8	0.0	1,137.9	99
News Mentions	17	300	1,035	0	6,802	99
Prize Age	43	61	58	6	294	99
Period (Years)	1.0	1.4	0.8	1.0	6.0	99
Yearly Winners	1.50	1.63	1.43	0.25	12.00	99
Money per Year	187	650	1,573	0	9,000	99
Money per Prize	250	503	637	0	3,000	99
Money per Winner	167	306	456	0	3,000	99

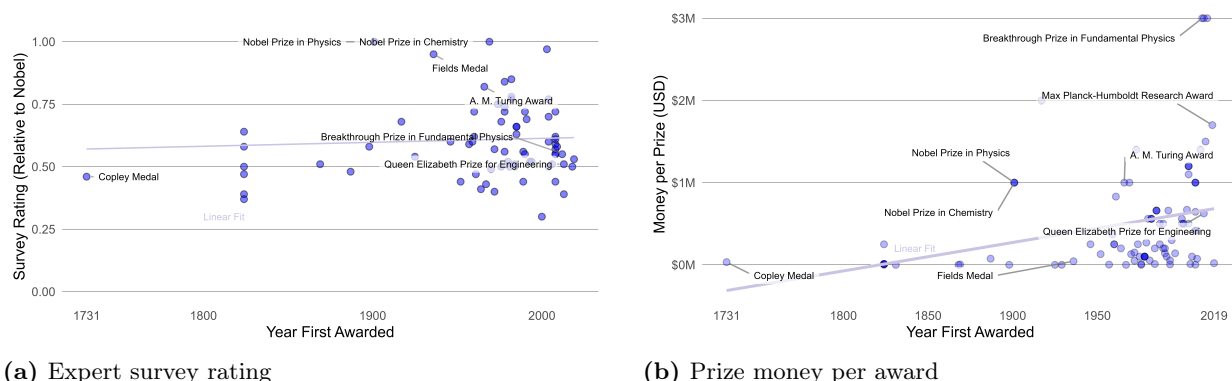
Note: This table shows summary statistics for the 99 most prestigious recognition prizes. Survey Rating: expert ratings of prize importance relative to the Nobel [9, 10]. Daily Page Views: average daily Wikipedia page views, 2020–2025. News Mentions: unique news articles mentioning the prize in the Media Cloud archive, 2020–2025. Prize Age: years since first awarded, as of 2025. Period: years between award rounds (1 = yearly). Yearly Winners: recipients per round divided by the period. Money per Year, per Prize and per Winner: prize money per round divided by the period, by the number of prizes per round, and by the number of recipients per round. Money in thousands of USD.

Fig 1. The Explosion in Prestigious Recognition Prizes



Note: The figure plots time series for the number of existing most-prestigious prizes each year (left axis) and the total yearly prize money given out by those prizes (right axis). The vertical axes are scaled so that the number of prizes and the prize money have the same base height in 1925. The series covers 98 prizes, excluding the discontinued Max Planck Research Award, the predecessor of the included Max Planck–Humboldt Research Award.

Fig 2. Prize Age Versus Expert Rating and Prize Money

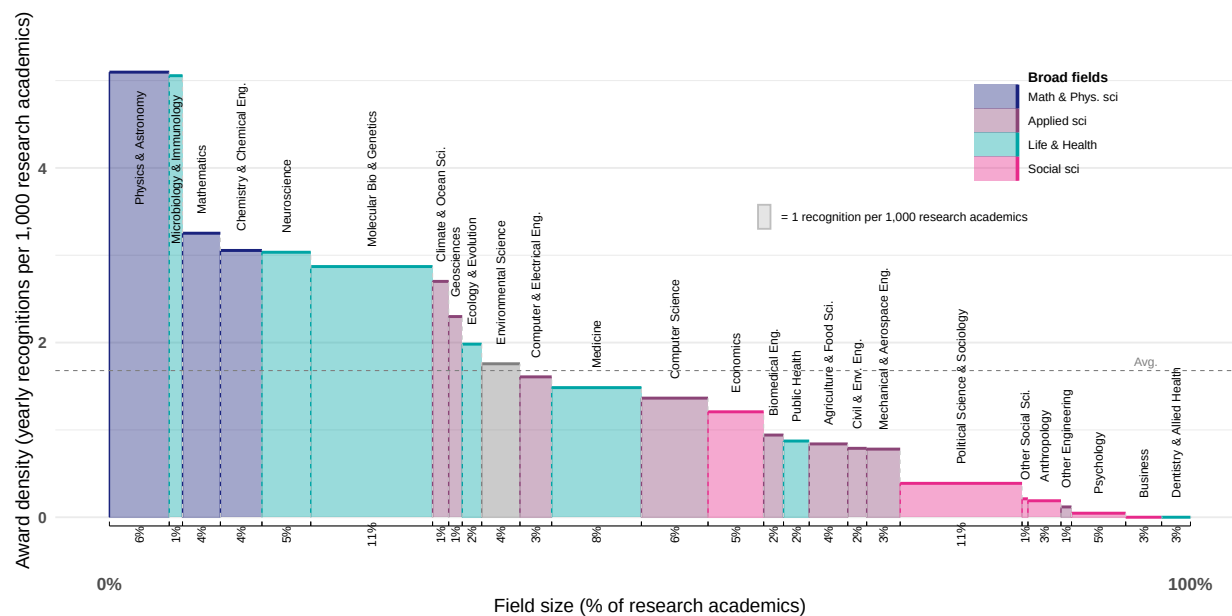


(a) Expert survey rating

(b) Prize money per award

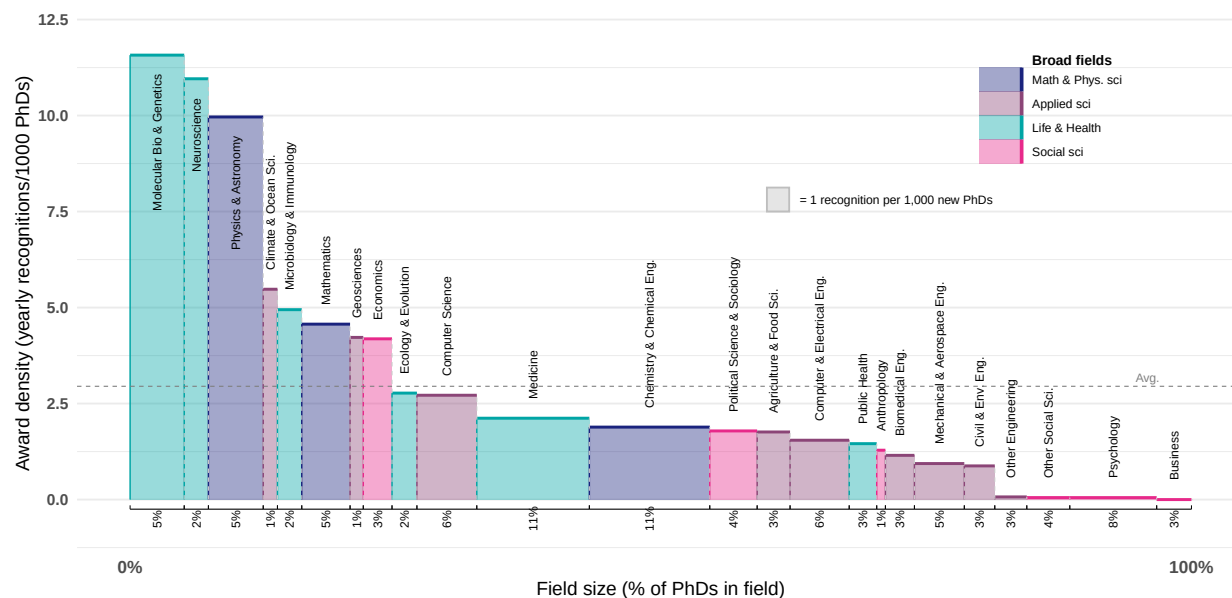
Note: Both panels plot year first awarded on the horizontal axis. Panel (a) plots expert survey rating (normalized relative to the Nobel Prize) for the 75 prizes with observed survey ratings; ratings from prior expert surveys [9,10]. Panel (b) plots prize money per award (which may be shared among multiple winners) for 98 prizes. Both panels exclude the discontinued Max Planck Research Award, the predecessor of the included Max Planck-Humboldt Research Award.

Fig 3. Award Density by Field (Research Academics Denominator)



Note: The figure plots the density of recognition events created by the 99 most prestigious prizes across 26 field groups. Each recognition event is assigned to a field based on the winner's primary research field (openalex.org author profile). Recognition events from 2015–2024 are averaged over 10 years. Field size is measured based on the number of research academics at the top 150 US universities. Density regions are colored by broad fields. The relative size of each field is displayed under each bar.

Fig 4. Award Density by Field (PhD Denominator)

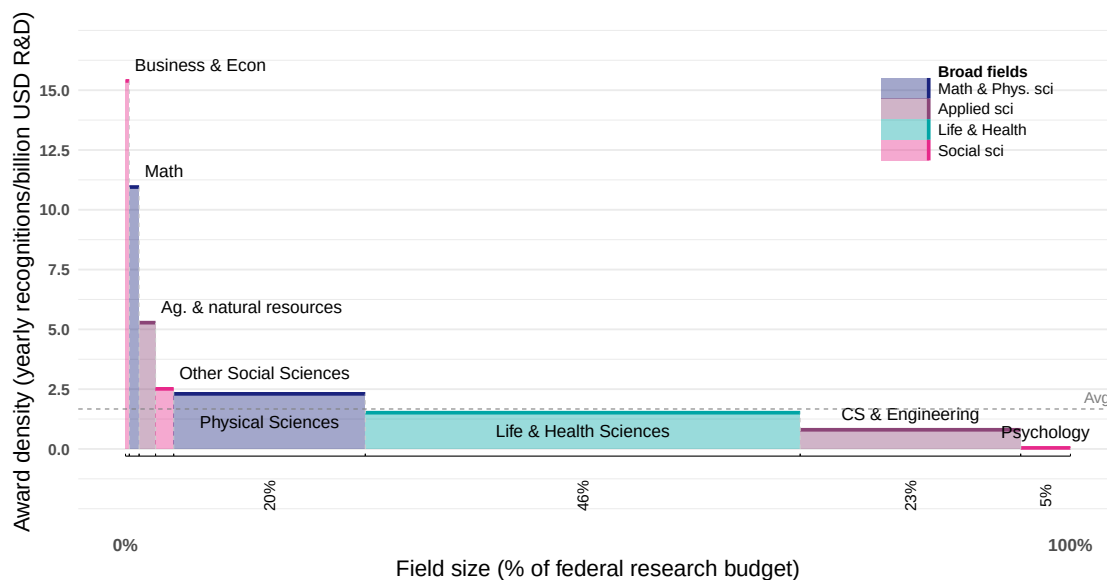


Note: The figure plots the density of recognition events created by the 99 most prestigious prizes across 24 field groups (limited by NSF doctorate field classifications). Each recognition event is assigned to a field based on the winner's primary research field (openalex.org author profile). Recognition events from 2015–2024 are averaged over 10 years. Field size is measured based on the number of new PhDs granted in the US in 2023. Density regions are colored by broad fields. The relative size of each field is displayed under each bar.

Supplementary Information

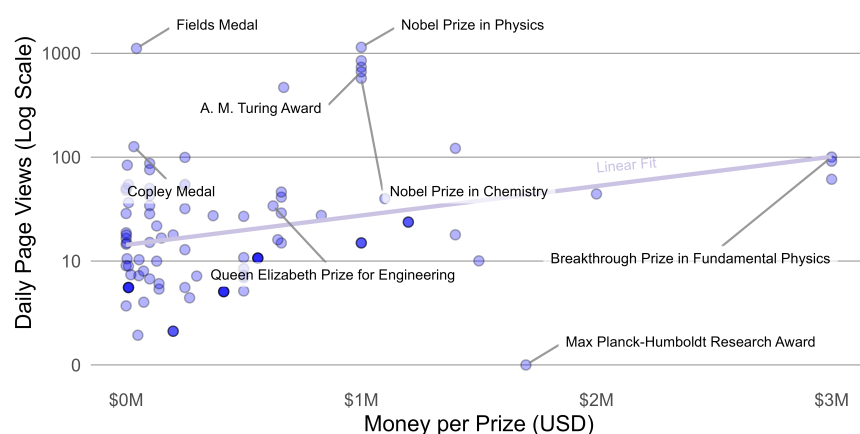
S1 Supplementary figures and tables

Fig S1. Award Density by Funding



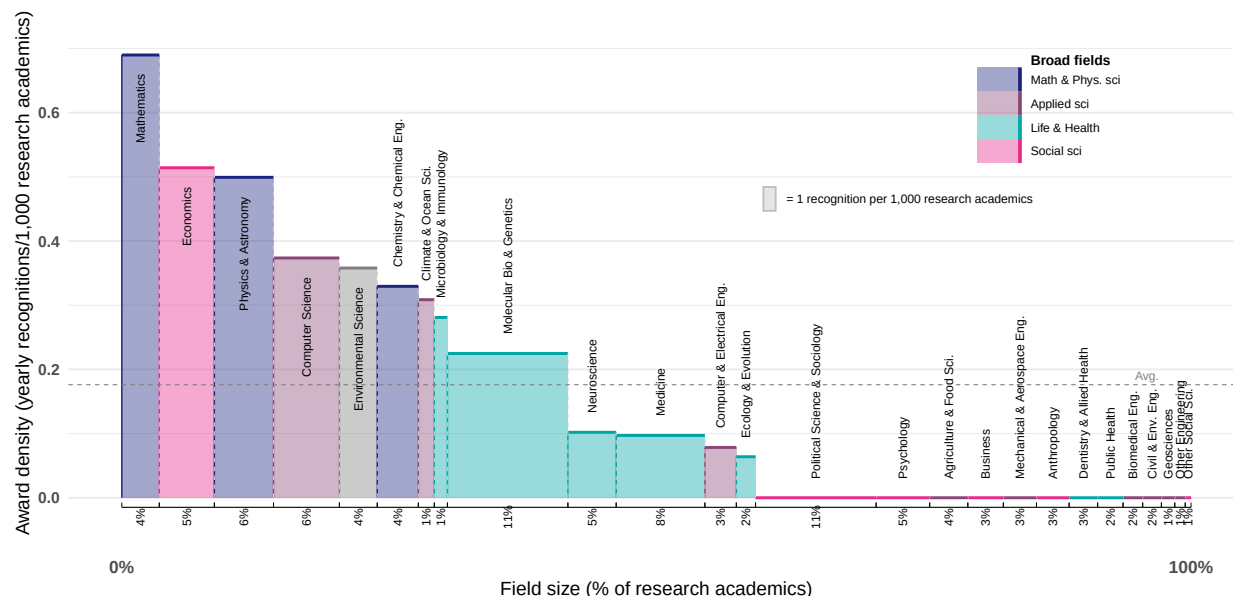
Note: The figure uses observed recognitions in 2015–2024, assigned by winners' OpenAlex fields to eight funding categories and averaged over ten years. Density is yearly recognitions per billion US dollars of federal research funding in 2022. The 98-prize sample excludes the discontinued Max Planck Research Award, the predecessor of the included Max Planck–Humboldt Research Award; records without a mapped scientific subfield are excluded. Field size is each category's share of the included research budget. Density regions are colored by broad fields. The relative size of each field is displayed under each bar.

Fig S2. Unconditional Correlation Between Purse Value and Online Visibility



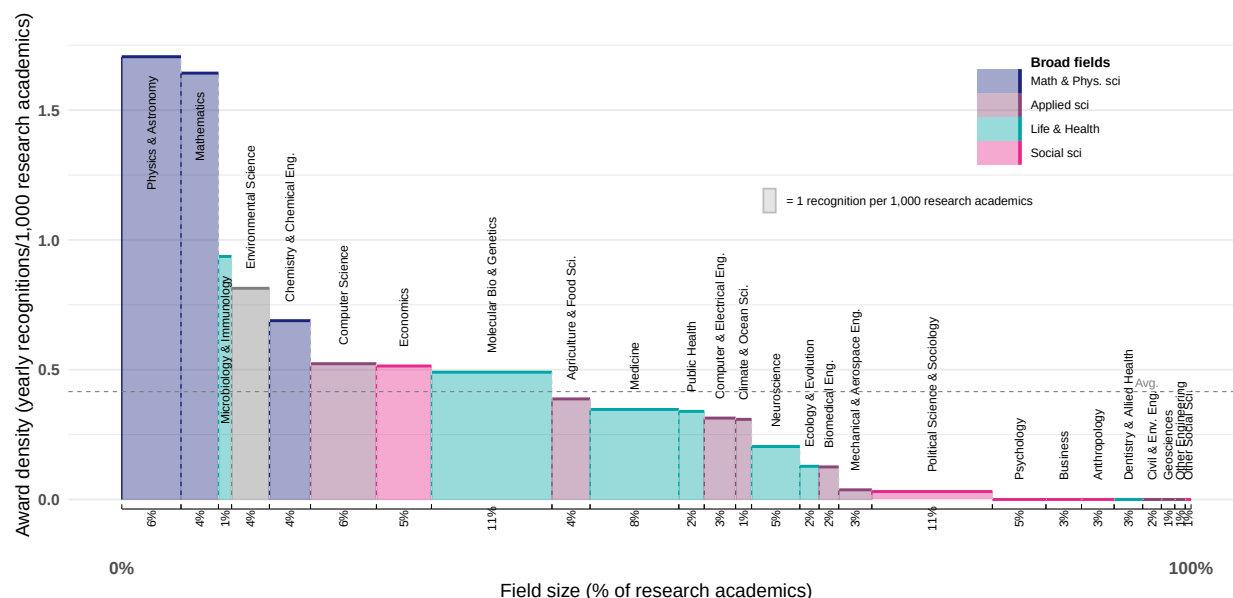
Note: The figure shows the relationship between daily Wikipedia page views (vertical) and prize money per award, which may be shared among multiple winners (horizontal), for 98 prizes. The discontinued Max Planck Research Award is excluded as the predecessor of the included Max Planck–Humboldt Research Award.

Fig S3. Award Density by Field: Tier 1 Prizes Only



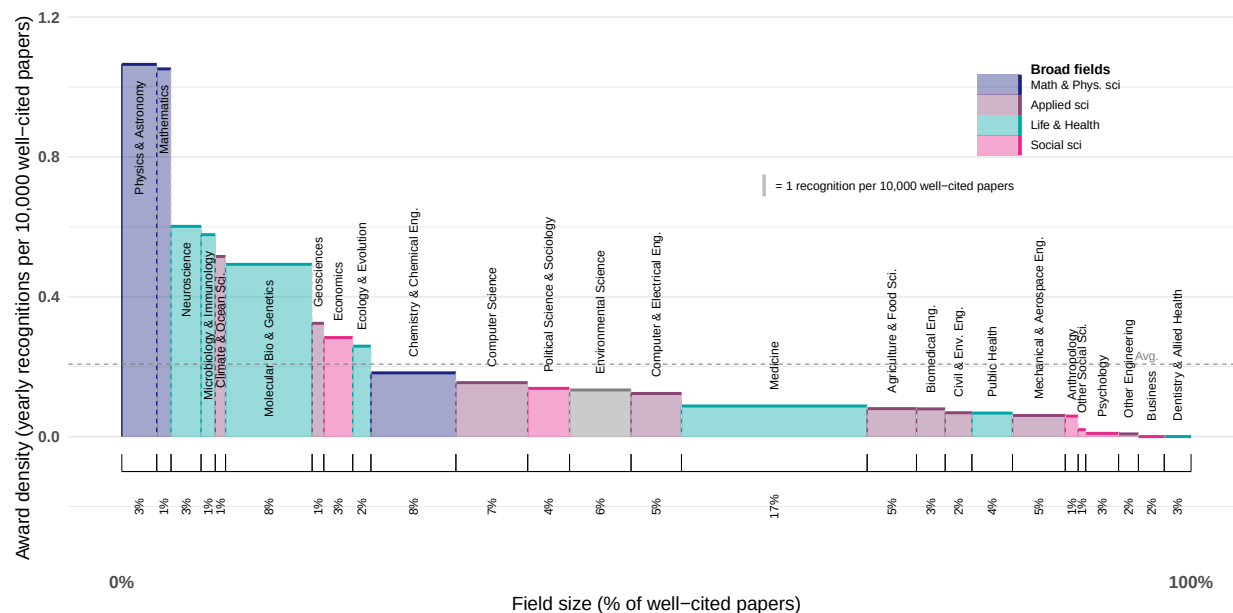
Note: The figure plots the density of recognition events created by the eight Tier 1 prizes across 26 field groups. Each recognition event is assigned to a field based on the winner's primary research field (openalex.org author profile). Recognition events from 2015–2024 are averaged over 10 years. Field size is measured based on the number of research academics at the top 150 US universities. Density regions are colored by broad fields. The relative size of each field is displayed under each bar.

Fig S4. Award Density by Field: Tier 1 and Tier 2 Prizes



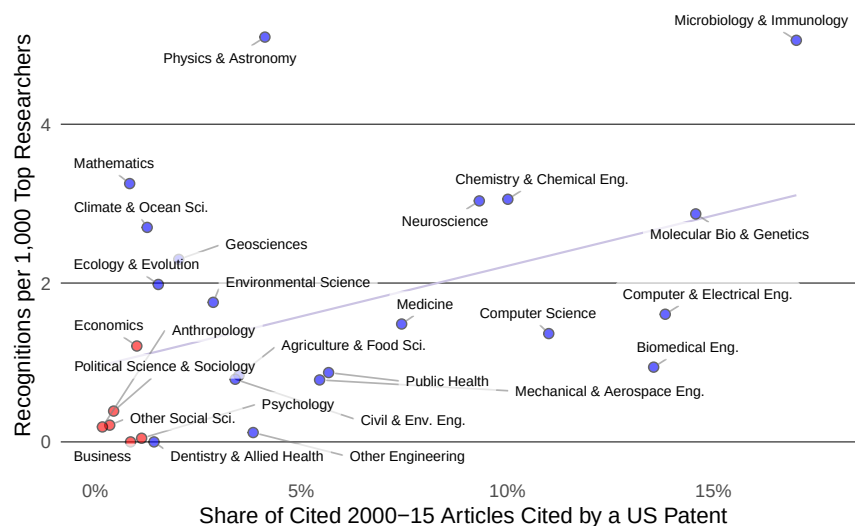
Note: The figure plots the density of recognition events created by the 20 Tier 1 and Tier 2 prizes across 26 field groups. Each recognition event is assigned to a field based on the winner's primary research field (openalex.org author profile). Recognition events from 2015–2024 are averaged over 10 years. Field size is measured based on the number of research academics at the top 150 US universities. Density regions are colored by broad fields. The relative size of each field is displayed under each bar.

Fig S5. Award Density by Field (Well-Cited Works Denominator)

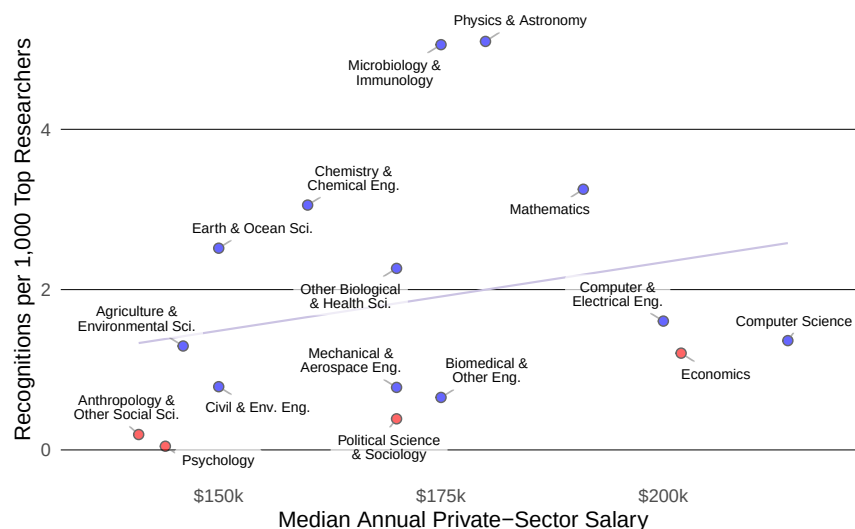


Note: The figure plots the density of recognition events created by the 99 most prestigious prizes across 26 field groups. Each recognition event is assigned to a field based on the winner's primary research field (openalex.org author profile). Recognition events from 2015–2024 are averaged over 10 years. Field size is measured by the number of OpenAlex works with at least 5 citations published in 2018–2020. Density is expressed as yearly recognitions per 10,000 well-cited papers. Density regions are colored by broad fields. The relative size of each field is displayed under each bar.

Fig S6. Prize Density, Patent Citations, and Private-Sector Pay



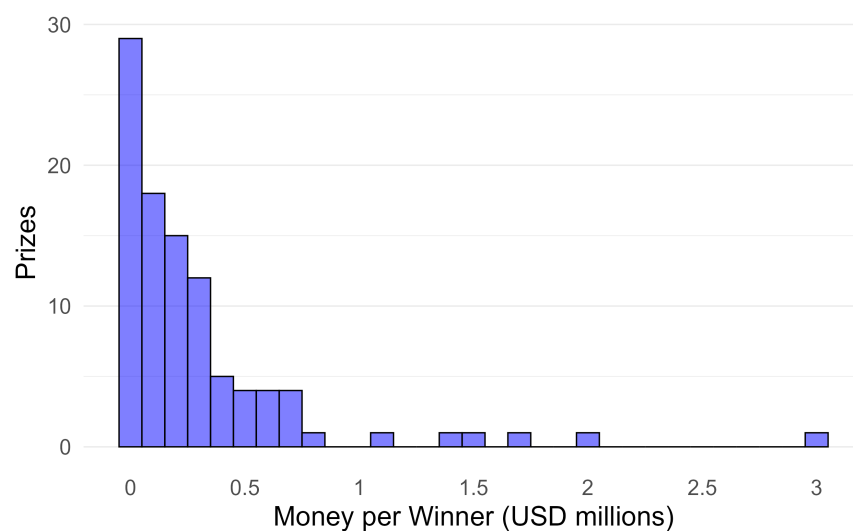
(a) Patent citations



(b) Private-sector pay

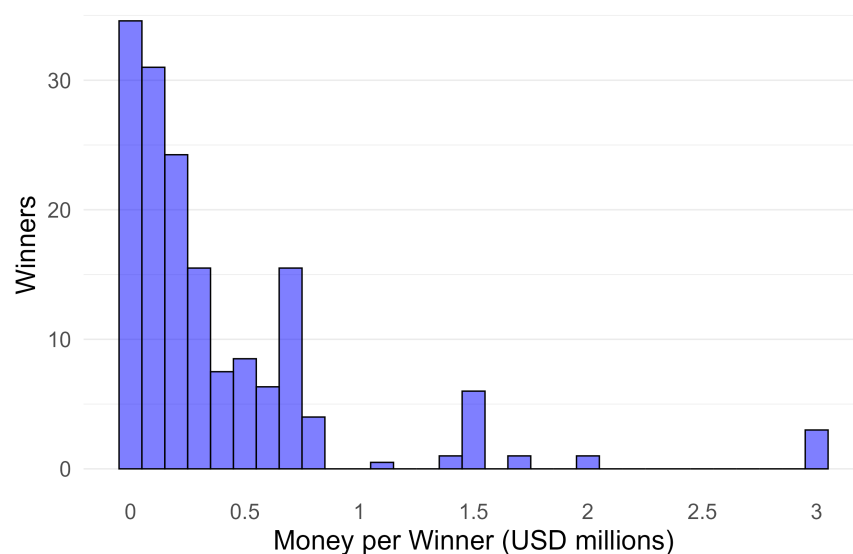
Note: Both panels plot yearly recognitions per 1,000 research academics, 2015–2024, as in Fig 3; lines are linear fits; social-science fields are red. Panel (a): share of a field’s 2000–2015 articles with at least one scholarly citation in OpenAlex (32.6 of 86.9 million, assigned to fields by OpenAlex primary topic) that a US patent granted through 2025 cites, from the July 2026 release of Marx and Fuegi’s *Reliance on Science* [35–37], counting front-page and in-text citations with confidence at least 4 on the authors’ 1–10 scale. Restricting to cited articles limits uneven inclusion of never-cited records across fields; the window allows at least ten years for a patent citation. Panel (b): survey-weighted median annual salary of US-residing doctorate holders working over 35 hours per week in private for-profit employment (incorporated self-employment included), all occupations, from the survey’s public-use file. The survey’s field categories are broader than ours, so we pool fields to match them: Agriculture & Food Science with Environmental Science; Geosciences with Climate & Ocean Sciences; Anthropology with Other Social Sciences; Biomedical with Other Engineering; and Molecular Biology & Genetics, Neuroscience, Ecology & Evolution, Medicine and Public Health into one biological and health sciences group. Business and Dentistry & Allied Health have no survey counterpart and are omitted.

Fig S7. Prize Money per Winner: Distribution Across Prizes



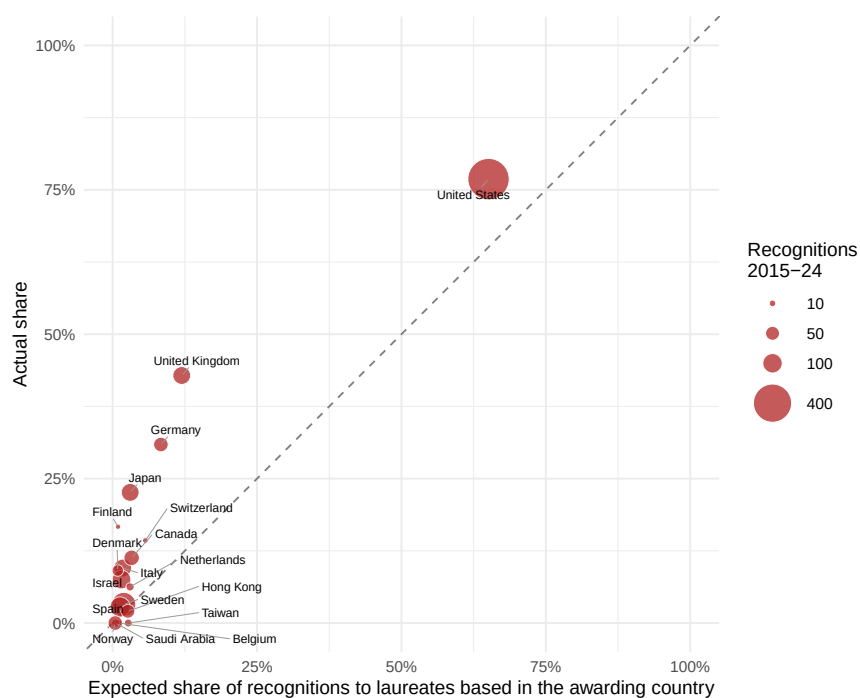
Note: The figure counts prizes in bins of money per winner. Each of the 98 included prizes has equal weight. The discontinued Max Planck Research Award is excluded as the predecessor of the included Max Planck–Humboldt Research Award.

Fig S8. Prize Money per Winner: Weighted by Annual Recipients



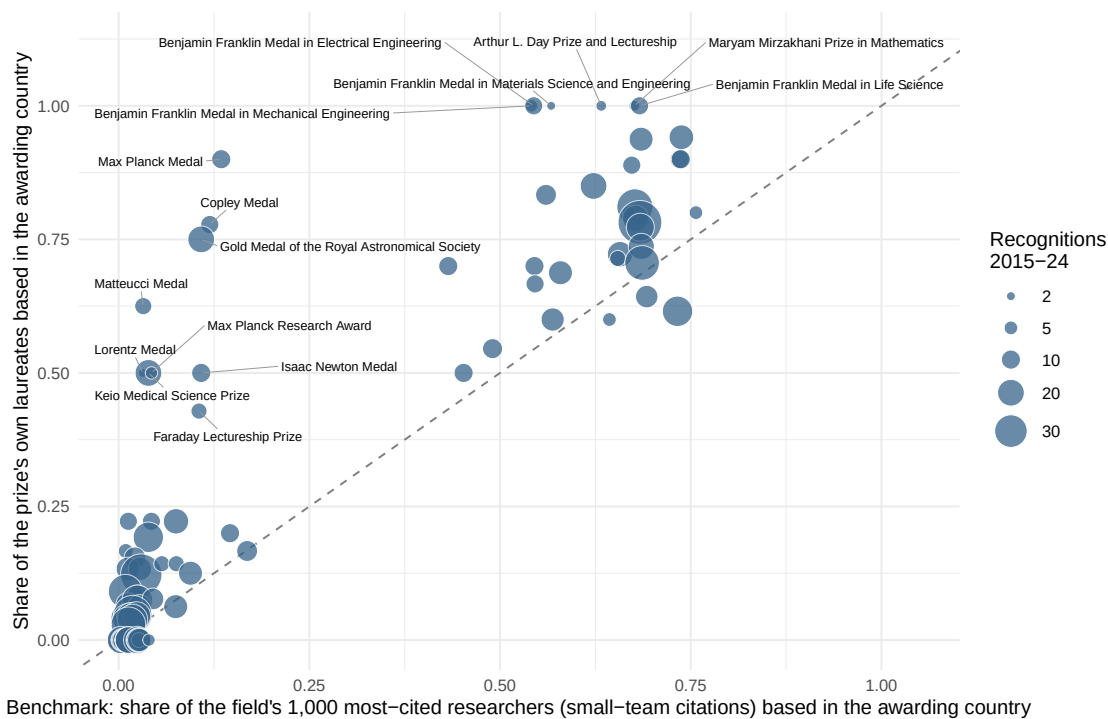
Note: The figure shows binned money per winner, weighting each prize by its estimated number of annual recipients. The 98 included prizes exclude the discontinued Max Planck Research Award, the predecessor of the included Max Planck–Humboldt Research Award.

Fig S9. Home Recognitions by Awarding Country, 2015–2024: Actual Versus Expected Share



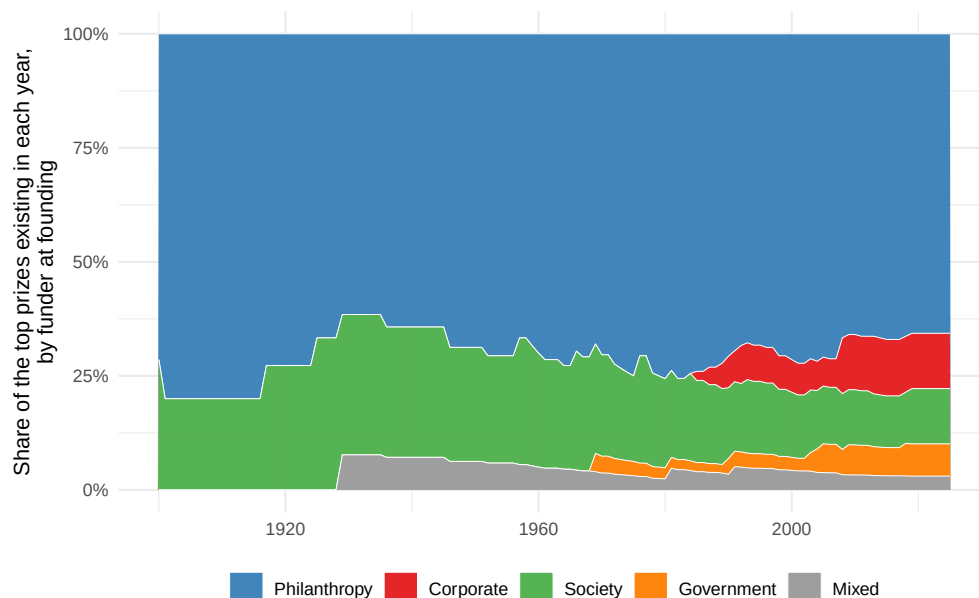
Note: Each point is an awarding country, sized by its number of recognitions. Horizontal axis: the share of its prizes' recognitions expected to go to a laureate based in that country under the benchmark; vertical axis: the share that did. Countries above the dashed line recognize home-based laureates more often than the benchmark predicts. Benchmark: for each field and award year, the 1,000 researchers with the most citations, as of the award year, to papers with at most 20 authors (small-team papers), which limits the influence of large consortia in physics and medicine. Laureates and benchmark researchers are located through the institutions and countries on their small-team papers; an affiliation counts if it appears in at least two publication years up to the award year and on at least 5% of the author's small-team papers, which limits errors from shared affiliation lists and mismatched institutions.

Fig S10. Home Share of Each Prize's Laureates Against the Field Benchmark



Note: Each point is a prize with a national awarding body, sized by its number of recognitions. Horizontal axis: the share of the benchmark researchers (note to Fig S9) based in the awarding country in the prize's award years; vertical axis: the share of the prize's own 2015–2024 laureates based there. Prizes above the dashed line recognize home-based laureates more often than the benchmark predicts. Labels mark prizes more than 30 points above or 15 points below the benchmark. Prizes with few recognitions scatter widely, since one laureate moves their home share by a large fraction.

Fig S11. Prestigious Prizes by Funder Type at Founding, 1900–2025



Note: For each year, the figure splits the prizes already founded by the type of source that supplied more than half of the purse at founding (mixed when none did). Philanthropic and corporate funders are the top two bands, so together they give the privately funded share; no prize was founded with university money. The funder is whoever pays the purse (prize money and any research funds to the winner; the medal when there is no cash), at founding or at the last refounding with new money. A language-model agent coded each prize under a written protocol from the prize's site, the awarding body's reports or filings, and press announcements (Wikipedia only as a supplement), recording its sources and the passage that establishes the funder; where an alternative coding is defensible, the record flags it and states why we chose ours.

Table S1. Lists of Prestigious Awards

List	Compilers	Number of Prizes	Year
US National Research Council's list of prestigious awards for ranking doctoral programs	Domain experts	191	2006
Inventory of International Awards	Government of Canada	135	2018
Roster of Distinguished Awards	International Congress of Distinguished Awards	95	2014
Prizes known as the Nobel of a field	Wikipedia contributors	63	2019
Prizes considered in the CWUR World University Rankings	CWUR	30	2019
Prizes considered in the Shanghai University Rankings	ARWU, based on their survey of academics	26	2019
Major prizes for medical research	Naylor and Bell (2015, JAMA)	20	2015

Note: This table summarizes the seven lists of prestigious prizes used in selection Criteria 1 and 2.

Table S2. Inclusion Criteria: Prizes Meeting Each Criterion and Prizes Meeting No Other

Inclusion criterion	Prizes meeting it	Meeting no other
1. Appears on at least three of seven authoritative lists	42	5
2. Expert rating ≥ 0.5 of a Nobel, and on at least one list	55	11
3. Over 50% of recent winners on Clarivate's HCR list	53	23
4. At least 40 daily Wikipedia page views, 2020–2025	26	6
At least one criterion	99	
Two or more criteria	54	
All four criteria	4	

Note: A prize enters the list if it meets at least one criterion; the citation criterion is evaluated over prizes that appear on at least one of the seven authoritative lists or were rated in either expert survey.

Table S3. Awarding Countries of the 99 Prizes, Home Bias, and Where Laureates Are Based

Country	Prizes given by country	Recognitions awarded by the country's organizations		Share of the country's recognitions given to scientists based there (%)			Share of all recognitions received by scientists based in the country (%)		
		N	% of all	Actual	Expected	Ratio	Actual	Expected	Ratio
United States	33	485	33.2	76.9	65.1	1.2	65.0	65.0	1.0
Sweden	13	162	11.1	3.2	1.9	1.7	2.0	1.9	1.1
Spain	5	109	7.5	2.8	1.3	2.2	0.6	1.2	0.5
Israel	6	93	6.4	7.5	1.5	4.9	2.2	1.5	1.4
Italy	3	90	6.2	9.5	1.7	5.5	1.8	1.9	0.9
United Kingdom	7	87	6.0	42.9	12.0	3.6	13.6	13.0	1.0
Japan	5	85	5.8	22.6	3.0	7.5	4.4	3.4	1.3
Canada	2	62	4.2	11.3	3.3	3.4	4.6	4.3	1.1
Germany	5	56	3.8	30.9	8.4	3.7	10.0	8.1	1.2
Norway	4	55	3.8	0.0	0.4	0.0	0.1	0.4	0.3
Hong Kong	3	50	3.4	2.0	2.6	0.8	0.4	0.7	0.6
Denmark	1	33	2.3	9.1	0.9	10.3	1.5	1.2	1.3
International	3	26	1.8	–	–	–	–	–	–
Netherlands	4	16	1.1	6.2	3.0	2.1	1.7	2.8	0.6
Saudi Arabia	1	16	1.1	0.0	0.5	0.0	0.4	0.6	0.7
Taiwan	1	15	1.0	0.0	2.7	0.0	0.0	0.3	0.0
Switzerland	1	8	0.5	14.3	5.7	2.5	3.4	3.3	1.0
Belgium	1	7	0.5	0.0	1.1	0.0	1.1	1.3	0.9
Finland	1	6	0.4	16.7	0.9	17.9	0.2	0.6	0.3
<i>Countries awarding none of the 99 prizes (the 5 with the largest pool shares), and all others:</i>									
China (mainland)	0	0	0.0	–	–	–	1.5	3.5	0.4
Australia	0	0	0.0	–	–	–	2.3	3.5	0.7
France	0	0	0.0	–	–	–	5.2	3.2	1.6
Russia	0	0	0.0	–	–	–	1.3	1.0	1.3
Austria	0	0	0.0	–	–	–	1.7	0.9	1.9
All other countries (99)	0	0	0.0	–	–	–	6.8	6.2	1.1

Note: This table counts prizes and 2015–2024 recognitions by the country of the awarding organization; the three international prizes (Fields Medal, ICTP Ramanujan Prize, IABSE Award of Merit) have no national home. Home shares cover the 1,399 recognitions of national prizes with a placeable laureate: actual is the share of laureates based in the awarding country by the award year; expected is the share of the field’s benchmark pool (the 1,000 researchers with the most citations to small-team papers, per field and award year) based there. The last three columns cover all 1,424 placeable recognitions: the share received by laureates based in the country (actual) and the country’s share of the benchmark pool, weighted by the recognitions’ field-year mix (expected); a researcher based in two countries counts in both. Ratios divide actual by expected. In the home-bias columns of the Hong Kong and Taiwan rows, mainland China, Hong Kong and Taiwan count as one home country on both sides; the received-share columns keep them apart. The last block lists the 5 non-awarding countries with the largest pool shares; the remaining countries are pooled in one row.

Table S4. Contextual Boolean Terms for Ambiguous Prize Names (Media Cloud Queries)

Prize	Search term	Context term(s)
Benjamin Franklin Medal in Chemistry	Benjamin Franklin Medal	Chemistry
Benjamin Franklin Medal in Electrical Engineering	Benjamin Franklin Medal	Electrical Engineering
Benjamin Franklin Medal in Life Science	Benjamin Franklin Medal	Life Science
Benjamin Franklin Medal in Materials Science	Benjamin Franklin Medal	Materials Science
Benjamin Franklin Medal in Mechanical Engineering	Benjamin Franklin Medal	Mechanical Engineering
Bower Award and Prize for Achievement in Science	Bower Award	science
Brain Prize	Brain Prize	neuroscience OR Lundbeck
Bruce Medal	Bruce Medal	astronomy OR Astronomical Society

(Table S4 continued)

Prize	Search term	Context term(s)
Crafoord Prize in Polyarthritis	Crafoord Prize	polyarthritis OR rheumatology
Frontiers of Knowledge Award (Basic Sciences)	Frontiers of Knowledge Award	Basic Sciences
Frontiers of Knowledge Award (Biology & Biomedicine)	Frontiers of Knowledge Award	biology OR biomedicine
Frontiers of Knowledge Award (Climate Change)	Frontiers of Knowledge Award	climate change
Frontiers of Knowledge Award (Ecology & Conservation)	Frontiers of Knowledge Award	ecology; conservation
Frontiers of Knowledge Award (Economics, Finance & Management)	Frontiers of Knowledge Award	economics OR finance OR management
Gold Medal for Astronomy	Gold Medal	Royal Astronomical Society
Harvey Prize	Harvey Prize	Technion
Heineken Prize for Biochemistry and Biophysics	Heineken Prize	biochemistry OR biophysics
Heineken Prize for Environmental Sciences	Heineken Prize	environment
Heineken Prize for Medicine	Heineken Prize	medicine
International Award of Merit in Structural Engineering	Award of Merit	structural engineering
Isaac Newton Medal	Isaac Newton Medal	physics; Institute of Physics
James Craig Watson Medal	Watson Medal	astronomy
Rolf Schock Prize in Mathematics	Rolf Schock Prize / Schock Prize	mathematics
Russ Prize	Russ Prize	engineering OR National Academy
Tang Prize in Biopharmaceutical Science	Tang Prize	biopharmaceutical

Note: For prizes whose name could plausibly match unrelated entities in news text, we augment the exact-phrase search with Boolean AND terms: (*prize name*) AND (*context terms*). The table lists the 25 prizes treated this way, together with the short search term and the context terms used to disambiguate. Terms separated by a semicolon or a slash are run as separate expressions and combined with OR.

Table S5. Correlation Between Normalized Prestige Indicators

	Survey Rating	Daily Page Views	Prize Age	Money per Prize	News Mentions
Survey Rating	1				
Daily Page Views	0.68 (0.08)***	1			
Prize Age	0.08 (0.12)	0.17 (0.10)	1		
Money per Prize	0.21 (0.11)	0.09 (0.10)	-0.47 (0.09)***	1	
News Mentions	0.53 (0.10)***	0.74 (0.07)***	-0.02 (0.10)	0.33 (0.10)***	1

Note: The table shows estimates of the Pearson correlation coefficients between each pair of the five prestige indicators, after normalization. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table S6. Most Prestigious Prizes, Ranked

Award Name	Tier	Rank	Rating	Field
Nobel Prize in Physics	1	1	100.0	Physics and Astronomy
Nobel Prize in Physiology or Medicine	1	2	97.2	Life and Health Sciences
Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel	1	3	96.7	Business and Economics
Nobel Prize in Chemistry	1	4	96.2	Chemistry
Fields Medal	1	5	89.4	Mathematics
A. M. Turing Award	1	6	87.8	Computing, Electrical
Abel Prize	1	7	85.2	Mathematics
Tyler Prize for Environmental Achievement	1	8	68.2	Environment
Japan Prize	2	9	66.1	Multidisciplinary
Breakthrough Prize in Fundamental Physics	2	10	64.4	Physics and Astronomy
Wolf Prize in Mathematics	2	11	64.0	Mathematics
Wolf Prize in Physics	2	12	63.4	Physics and Astronomy
World Food Prize	2	13	63.1	Ag. and Natural Resources
Templeton Prize	2	14	61.8	Multidisciplinary
Wolf Prize in Chemistry	2	15	61.7	Chemistry
Albert Lasker Basic Medical Research Award	2	16	61.2	Life and Health Sciences
IEEE Medal of Honor	2	17	60.4	Computing, Electrical
Lasker-DeBakey Clinical Medical Research Award	2	17	60.4	Life and Health Sciences
Shaw Prize in Mathematical Sciences	2	17	60.4	Mathematics
Stockholm Water Prize	2	20	60.1	Environment
Canada Gairdner International Award	3	21	58.5	Life and Health Sciences
Shaw Prize in Astronomy	3	22	58.1	Physics and Astronomy
Millennium Technology Prize	3	23	57.9	Multidisciplinary
Eni Award	3	23	57.9	Environment
Breakthrough Prize in Life Sciences	3	25	57.7	Life and Health Sciences
Queen Elizabeth Prize for Engineering	3	26	57.2	Multidisciplinary
Kyoto Prize in Basic Sciences	3	27	56.8	Multidisciplinary
Copley Medal	3	28	56.5	Multidisciplinary
Blue Planet Prize	3	29	56.0	Environment
Breakthrough Prize in Mathematics	3	30	55.9	Mathematics
Balzan Prizes	3	31	55.3	Multidisciplinary
Shaw Prize in Life Science and Medicine	3	32	54.7	Life and Health Sciences
Wolf Prize in Medicine	3	33	54.5	Life and Health Sciences
Charles Stark Draper Prize for Engineering	3	34	54.3	Multidisciplinary
Kavli Prize in Astrophysics	3	35	53.8	Physics and Astronomy
Crafoord Prize in Geosciences	3	36	52.2	Earth Sciences
Kyoto Prize in Advanced Technology	3	37	52.0	Multidisciplinary
Volvo Environment Prize	3	38	51.1	Environment
Crafoord Prize in Astronomy	3	39	50.7	Physics and Astronomy
Kavli Prize in Neuroscience	3	40	50.4	Life and Health Sciences
Kavli Prize in Nanoscience	3	40	50.4	Multidisciplinary
Crafoord Prize in Mathematics	3	42	49.9	Mathematics
Albert Einstein World Award of Science	3	43	49.6	Multidisciplinary
Canada Gairdner Global Health Award	3	44	49.4	Life and Health Sciences
King Faisal International Prize in Science	3	45	49.2	Multidisciplinary
Vetlesen Prize	3	46	49.1	Earth Sciences
Crafoord Prize in Biosciences	3	46	49.1	Life and Health Sciences
Robert Koch Award	3	48	48.0	Life and Health Sciences

(Table S6 continued)

Award Name	Tier	Rank	Rating	Field
Gold Medal for Astronomy	3	49	47.6	Physics and Astronomy
Marconi Prize	3	50	47.0	Computing, Electrical
Gödel Prize	3	50	47.0	Computing, Electrical
ICTP Ramanujan Prize	3	52	46.9	Mathematics
Frontiers of Knowledge Award in Climate Change	3	53	45.8	Earth Sciences
Von Hippel Award	3	54	45.3	Materials and Mining Eng.
Frontiers of Knowledge Award in Ecology and Conservation Biology	3	55	45.1	Environment
Timoshenko Medal	3	56	44.0	Multidisciplinary
Paul Ehrlich and Ludwig Darmstaedter Prize	3	57	43.7	Life and Health Sciences
Erwin Plein Nemmers Prize in Economics	3	58	43.5	Business and Economics
Stockholm Prize in Criminology	3	58	43.5	Other Social Sciences
Frontiers of Knowledge Award in Economics, Finance and Management	3	60	42.8	Business and Economics
Brain Prize	3	60	42.8	Life and Health Sciences
Wolf Prize in Agriculture	3	62	42.4	Ag. and Natural Resources
Tang Prize in Biopharmaceutical Science	3	62	42.4	Life and Health Sciences
Benjamin Franklin Medal in Electrical Engineering	3	64	41.8	Computing, Electrical
Rolf Schock Prize in Mathematics	3	65	41.6	Mathematics
Harvey Prize	3	66	41.5	Multidisciplinary
Benjamin Franklin Medal in Chemistry	3	67	40.8	Chemistry
Isaac Newton Medal	3	67	40.8	Physics and Astronomy
Benjamin Franklin Medal in Life Science	3	69	40.0	Life and Health Sciences
Gruber Prize in Cosmology	3	70	38.9	Physics and Astronomy
James Craig Watson Medal	3	71	38.1	Physics and Astronomy
Louisa Gross Horwitz Prize	3	72	37.7	Life and Health Sciences
Bower Award and Prize for Achievement in Science	3	73	37.6	Multidisciplinary
Maryam Mirzakhani Prize in Mathematics	3	74	37.5	Mathematics
Crafoord prize in Polyarthrititis	3	75	37.0	Life and Health Sciences
Heineken Prize for Environmental Sciences	3	76	36.8	Environment
Warren Alpert Foundation Prize	3	77	35.7	Life and Health Sciences
Max Planck-Humboldt Research Award	3	78	35.6	Multidisciplinary
Faraday Lectureship Prize	3	79	35.5	Chemistry
Benjamin Franklin Medal in Mechanical Engineering	3	79	35.5	Mechanical Eng.
Stein Rokkan Prize for Comparative Social Science Research	3	81	35.1	Business and Economics
Max Planck Medal	3	82	34.2	Physics and Astronomy
Bruce Medal	3	83	33.9	Physics and Astronomy
Lorentz Medal	3	84	33.1	Physics and Astronomy
Heineken Prize for Medicine	3	84	33.1	Life and Health Sciences
InBev-Baillet Latour Health Prize	3	86	33.0	Life and Health Sciences
Russ Prize	3	87	32.8	Bio. and Biomedical Eng.
Wollaston Medal	3	88	32.6	Earth Sciences
Arthur L. Day Prize and Lectureship	3	89	32.3	Earth Sciences
Frontiers of Knowledge Award in Biology and Biomedicine	3	90	32.1	Life and Health Sciences

(Table S6 continued)

Award Name	Tier	Rank	Rating	Field
Benjamin Franklin Medal in Materials Science and Engineering	3	91	31.9	Materials and Mining Eng.
Gruber Prize in Genetics	3	92	31.8	Life and Health Sciences
Max Planck Research Award	3	92	31.8	Multidisciplinary
Heineken Prize for Biochemistry and Biophysics	3	94	31.5	Life and Health Sciences
Keio Medical Science Prize	3	95	30.3	Life and Health Sciences
International Award of Merit in Structural Engineering	3	96	29.6	Civil, Env., and Transp. Eng.
Matteucci Medal	3	97	29.2	Physics and Astronomy
Frontiers of Knowledge Award in Basic Sciences	3	98	28.7	Multidisciplinary
Gruber Prize in Neuroscience	3	99	27.6	Life and Health Sciences

Note: This table lists the 99 most prestigious prizes, ranked by Rating: the sum of the prestige indicators weighted by their first-principal-component loadings, rescaled so that the Nobel Prize in Physics equals 100. Prizes with the same Rating to one decimal share a Rank. Tiers follow the cumulative share of yearly recognition events (one person recognized with one prize): Tier 1 holds the top 10%, Tier 2 the next 20%, Tier 3 the rest.

Table S7. Awards by Field

Field	Prizes	Recognitions/year	Avg. Rank
Mathematics and Physical Sciences	27	46.8	42.3
Mathematics	9	11.8	33.9
Physics and Astronomy	14	28.9	51.6
Chemistry	4	6.0	41.2
Applied Sciences	17	19.8	67.6
Earth Sciences	5	3.8	62.4
Ag. and Natural Resources	2	4.0	37.5
Materials and Mining Eng.	2	2.0	72.5
Bio and Biomedical Eng.	1	1.5	87.0
Computing, Electrical	5	6.5	37.6
Civil, Env., and Transp. Eng.	1	1.0	96.0
Mechanical Eng.	1	1.0	80.0
Engineering, other	—	—	—
Life and Health Sciences	25	49.8	57.6
Psychology	—	—	—
Social Sciences	5	6.0	54.8
Business and Economics	4	5.0	50.5
Other Social Sciences	1	1.0	59.0
Environment and Multidisciplinary	25	39.2	40.7
Total	99	161.7	50.0

Note: This table summarizes the number of prizes, recognition events per year, and average rank (PCA-based) for the 99 most prestigious prizes, grouped by field. A dash marks a field with no prize.

Table S8. Robustness Exercise – Distribution of Prize Ranking under Random Weighting

Award Name	PCA Rank	P5	P50	P95	PCA Tier	% in right Tier
Nobel Prize in Physics	1	1	1	1	1	100.0
Nobel Prize in Physiology or Medicine	2	2	2	3	1	100.0
Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel	3	3	4	6	1	98.9
Nobel Prize in Chemistry	4	3	3	4	1	100.0
Fields Medal	5	4	5	9	1	95.9
A. M. Turing Award	6	5	6	7	1	98.1
Abel Prize	7	5	7	27	1	80.9
Tyler Prize for Environmental Achievement	8	8	11	23	1	27.9
Japan Prize	9	9	13	28	2	94.4
Breakthrough Prize in Fundamental Physics	10	9	21	70	2	47.0
Wolf Prize in Mathematics	11	8	16	41	2	47.2
Wolf Prize in Physics	12	10	18	32	2	73.6
World Food Prize	13	7	20	65	2	38.7
Templeton Prize	14	8	15	55	2	42.2
Wolf Prize in Chemistry	15	12	21	35	2	58.5
Albert Lasker Basic Medical Research Award	16	11	16	27	2	75.9
IEEE Medal of Honor	17	7	11	25	2	54.6
Lasker–DeBakey Clinical Medical Research Award	18	11	16	25	2	84.2
Shaw Prize in Mathematical Sciences	19	10	25	58	2	41.0
Stockholm Water Prize	20	13	25	49	2	44.4
Canada Gairdner International Award	21	14	20	28	3	36.6
Shaw Prize in Astronomy	22	16	29	61	3	68.7
Millennium Technology Prize	23	17	30	62	3	88.9
Eni Award	24	14	35	70	3	85.0
Breakthrough Prize in Life Sciences	25	13	38	83	3	79.9
Queen Elizabeth Prize for Engineering	26	20	39	81	3	97.5
Kyoto Prize in Basic Sciences	27	17	26	44	3	58.4
Copley Medal	28	4	15	48	3	36.0
Blue Planet Prize	29	10	35	68	3	69.2
Breakthrough Prize in Mathematics	30	13	45	90	3	88.3
Balzan Prizes	31	13	24	42	3	58.3
Shaw Prize in Life Science and Medicine	32	25	35	65	3	96.8
Wolf Prize in Medicine	33	26	33	43	3	97.2
Charles Stark Draper Prize for Engineering	34	28	33	47	3	99.2
Kavli Prize in Astrophysics	35	19	42	75	3	83.6
Crafoord Prize in Geosciences	36	9	34	74	3	63.3
Kyoto Prize in Advanced Technology	37	23	36	56	3	84.3
Volvo Environment Prize	38	21	43	68	3	84.0
Crafoord Prize in Astronomy	39	14	38	69	3	71.2
Kavli Prize in Neuroscience	40	35	48	76	3	100.0
Kavli Prize in Nanoscience	41	30	49	78	3	97.8
Crafoord Prize in Mathematics	42	13	40	76	3	71.3
Albert Einstein World Award of Science	43	35	50	75	3	100.0
Canada Gairdner Global Health Award	44	36	58	85	3	100.0
King Faisal International Prize in Science	45	39	45	52	3	100.0
Vetlesen Prize	46	25	37	53	3	77.9
Crafoord Prize in Biosciences	47	30	41	53	3	98.3
Robert Koch Award	48	36	44	53	3	99.9
Gold Medal for Astronomy	49	8	40	92	3	69.1
Marconi Prize	50	26	50	80	3	98.2
Gödel Prize	51	26	65	88	3	98.3
ICTP Ramanujan Prize	52	34	71	89	3	100.0

(Table S8 continued)

Award Name	PCA Rank	P5	P50	P95	PCA Tier	% in right Tier
Frontiers of Knowledge Award in Climate Change	53	41	61	87	3	100.0
Von Hippel Award	54	29	57	83	3	92.3
Frontiers of Knowledge Award in Ecology and Conservation Biology	55	38	64	89	3	100.0
Timoshenko Medal	56	34	56	87	3	98.2
Paul Ehrlich and Ludwig Darmstaedter Prize	57	31	51	64	3	96.5
Erwin Plein Nemmers Prize in Economics	58	49	60	72	3	100.0
Stockholm Prize in Criminology	59	55	70	85	3	100.0
Frontiers of Knowledge Award in Economics, Finance and Management	60	48	70	88	3	100.0
Brain Prize	61	35	72	94	3	99.9
Wolf Prize in Agriculture	62	40	61	82	3	100.0
Tang Prize in Biopharmaceutical Science	63	31	77	96	3	99.9
Benjamin Franklin Medal in Electrical Engineering	64	10	47	78	3	72.4
Rolf Schock Prize in Mathematics	65	56	68	79	3	100.0
Harvey Prize	66	46	60	73	3	100.0
Benjamin Franklin Medal in Chemistry	67	11	52	79	3	78.2
Isaac Newton Medal	68	53	85	96	3	100.0
Benjamin Franklin Medal in Life Science	69	12	54	81	3	80.4
Gruber Prize in Cosmology	70	53	73	87	3	100.0
James Craig Watson Medal	71	19	58	79	3	86.9
Louisa Gross Horwitz Prize	72	44	80	98	3	100.0
Bower Award and Prize for Achievement in Science	73	10	52	78	3	81.1
Maryam Mirzakhani Prize in Mathematics	74	66	90	99	3	100.0
Crafoord prize in Polyarthritis	75	56	78	89	3	100.0
Heineken Prize for Environmental Sciences	76	50	72	93	3	100.0
Warren Alpert Foundation Prize	77	49	73	93	3	100.0
Max Planck-Humboldt Research Award	78	52	88	99	3	100.0
Faraday Lectureship Prize	79	21	67	91	3	89.5
Benjamin Franklin Medal in Mechanical Engineering	80	15	64	88	3	84.9
Stein Rokkan Prize for Comparative Social Science Research	81	59	77	94	3	100.0
Max Planck Medal	82	31	85	98	3	96.7
Bruce Medal	83	28	80	97	3	94.0
Lorentz Medal	84	37	85	98	3	97.5
Heineken Prize for Medicine	85	66	80	94	3	100.0
InBev-Baillet Latour Health Prize	86	55	78	92	3	100.0
Russ Prize	87	67	86	94	3	100.0
Wollaston Medal	88	20	80	97	3	91.0
Arthur L. Day Prize and Lectureship	89	47	80	97	3	100.0
Frontiers of Knowledge Award in Biology and Biomedicine	90	62	90	98	3	100.0
Benjamin Franklin Medal in Materials Science and Engineering	91	17	74	92	3	88.6
Gruber Prize in Genetics	92	68	87	95	3	100.0
Max Planck Research Award	93	44	78	98	3	99.3
Heineken Prize for Biochemistry and Biophysics	94	51	78	94	3	99.9
Keio Medical Science Prize	95	74	88	97	3	100.0
International Award of Merit in Structural Engineering	96	64	94	99	3	100.0

(Table S8 continued)

Award Name	PCA Rank	P5	P50	P95	PCA Tier	% in right Tier
Matteucci Medal	97	25	90	99	3	93.7
Frontiers of Knowledge Award in Basic Sciences	98	74	94	99	3	100.0
Gruber Prize in Neuroscience	99	73	93	99	3	100.0

Note: This table shows the rank and tier of each of the 99 prizes across 1,000 rankings built with random weights over the five standardized indicators. PCA Rank and PCA Tier are the original ranking and tier; P5, P50 and P95 the 5th, 50th and 95th percentiles of the simulated rank; % in right Tier the share of simulations that place the prize in its original tier.

Table S9. Selected Early Career Prizes, Ranked

Award Name	Tier	Field
Bôcher Memorial Prize	1	Mathematics
Clay Research Award	1	Mathematics
COPSS Presidents' Award	1	Mathematics
Fermat Prize	1	Mathematics
Fields Medal	1	Mathematics
ICTP Ramanujan Prize	1	Mathematics
Max Planck-Humboldt Research Award	1	Multidisciplinary
Oswald Veblen Prize in Geometry	1	Mathematics
Rollo Davidson Prize	1	Mathematics
Salem Prize	1	Mathematics
Annie Jump Cannon Award in Astronomy	2	Astronomy
Berwick Prize	2	Mathematics
Bigsby Medal	2	Earth Sciences
Fernand Holweck Medal and Prize	2	Physics
ICTP Prize	2	Physics
IJCAI Computers and Thought Award	2	Computer Science and Engineering
IMU Abacus Medal	2	Computer Science and Engineering
J. H. Wilkinson Prize for Numerical Software	2	Computer Science and Engineering
Leslie Fox Prize for Numerical Analysis	2	Mathematics
Lieben Prize	2	Multidisciplinary
Loève Prize	2	Mathematics
Machtey Award	2	Computer Science and Engineering
Michael Brin Prize in Dynamical Systems	2	Mathematics
Overton Prize	2	Life Sciences and Medicine
Peccot Lectures	2	Mathematics
Ruth Lyttle Satter Prize in Mathematics	2	Mathematics
Sloan Research Fellowship*	2	Multidisciplinary
Troland Research Awards	2	Psychology
Walter L. Huber Civil Engineering Research Prize	2	Computer Science and Engineering
Yrjö Jahnsson Award	2	Social Sciences
Adolph Lomb Medal	3	Physics
Amelia Earhart Fellowship*	3	Computer Science and Engineering
Beilby Medal and Prize	3	Chemistry
Bunsen-Kirchhoff Award	3	Chemistry
Colworth Medal	3	Life Sciences and Medicine
Dahl-Nygaard Prize Junior Prize	3	Computer Science and Engineering
E. H. Moore Research Article Prize	3	Mathematics
E. W. Beth Dissertation Prize	3	Multidisciplinary
EMBO Gold Medal	3	Life Sciences and Medicine
European Prize in Combinatorics	3	Mathematics
Fröhlich Prize	3	Mathematics
Germán Bernácer Prize	3	Social Sciences

(Table S9 continued)

Award Name	Tier	Field
Gossen Prize	3	Social Sciences
Gribov Medal	3	Physics
Hausdorff Medal	3	Mathematics
James B. Macelwane Medal	3	Earth Sciences
James Clerk Maxwell Medal and Prize	3	Physics
Kalai Prize	3	Computer Science and Engineering
Levi L. Conant Prize	3	Mathematics
LTPP Data Analysis Contest - Challenge Category	3	Computer Science and Engineering
Luigi G. Napolitano Award	3	Computer Science and Engineering
Margaret Mead Award	3	Social Sciences
Maurice Wilkes Award	3	Computer Science and Engineering
Nerode Prize	3	Mathematics
New Horizons in Fundamental Physics	3	Physics
New Horizons in Mathematics	3	Mathematics
Otto Hahn Medal – Biological-Medical	3	Life Sciences and Medicine
Otto Hahn Medal – Chemical-Physical-Engineering	3	Multidisciplinary
Otto Hahn Medal – Social Sciences-Humanities	3	Multidisciplinary
Presburger Award	3	Computer Science and Engineering
Ribenboim Prize	3	Mathematics
Richard Lounsbery Award	3	Life Sciences and Medicine
Science Innovation Award	3	Earth Sciences
Stampacchia Medal	3	Mathematics
Stockholm Junior Water Prize	3	Multidisciplinary
T. S. Ashton Prize	3	Social Sciences
W. Alden Spencer Award	3	Life Sciences and Medicine
Wayne B. Nottingham Prize	3	Physics

Note: This table lists the 68 most prestigious early-career prizes, selected and tiered as described in Appendix S2: Tier 1 is the top 10 prizes, Tier 2 the next 20. Within tiers, prizes are alphabetical. * Research fellowship: a cohort program funding a period of research rather than a single award.

Table S10. Prizes with the Largest Home-Bias Excess Against the Field Benchmark

Prize	Country	<i>N</i>	Home	Bench.	Excess
Max Planck Medal	Germany	10	0.90	0.13	+0.77
Copley Medal	United Kingdom	9	0.78	0.12	+0.66
Gold Medal of the Royal Astronomical Society	United Kingdom	20	0.75	0.11	+0.64
Matteucci Medal	Italy	8	0.62	0.03	+0.59
Lorentz Medal	Netherlands	2	0.50	0.03	+0.47
Keio Medical Science Prize	Japan	20	0.50	0.04	+0.46
Benjamin Franklin Medal in Mechanical Engineering	United States	4	1.00	0.54	+0.46
Max Planck Research Award	Germany	4	0.50	0.04	+0.46
Benjamin Franklin Medal in Electrical Engineering	United States	9	1.00	0.54	+0.46
Benjamin Franklin Medal in Materials Science and Engineering	United States	2	1.00	0.57	+0.43
<i>Largest negative excess:</i>					
Godel Prize	United States	26	0.62	0.73	−0.12
Breakthrough Prize in Mathematics	United States	14	0.64	0.69	−0.05
Vetlesen Prize	United States	5	0.60	0.64	−0.04
Heineken Prize for Environmental Sciences	Netherlands	4	0.00	0.04	−0.04

Note: This table lists the prizes whose laureates are most often based in the awarding country relative to the field benchmark: the field’s 1,000 researchers with the most citations to small-team papers, located by their affiliations up to the award year. *N* is the number of 2015–2024 recognitions; the smallest *N* are noisy. Home and Bench. are the shares of the prize’s laureates and of the benchmark researchers based in the awarding country; Excess is their difference.

S2 Early career prize methodology

For early career prizes, we make the inclusion criteria more lenient to capture more prizes. We rely more on prize age and online popularity, since these are more readily available for such awards. We define eligible prizes as those with any age or career stage restrictions or those focusing explicitly on recent work (past 10 years). Selection requires meeting one of:

- Two or more daily Wikipedia page views
- At least 60 years of history
- Inclusion in Wikipedia’s early career awards list

We maintain the exclusion criteria regarding international reach and selection procedures, except that we do not require winner lists to be readily available. This strategy identifies the 68 most prestigious international early career prizes, which produce about 265 recognition events each year. We provide a tier-based ranking for these prizes, based on a prestige proxy that puts 80% weight on daily page views and 20% weight on prize age (both normalized). We assign the first ten prizes to the first tier and the next twenty to the second tier.