

awardees, Nobel predictions based on co-awardees of relevant awards, and the economics of awards.

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Appendix 1: Listing of the 207 international academic awards

See Tables 5, 6, 7, 8, 9.

Table 5 21 Awards in multidisciplinary fields

Award name and website	Number of recipients	Average reputation score
Kyoto prize in basic sciences http://www.inamori-f.or.jp/e_kp_out_out.html	30	0.66
Japan prize http://www.japanprize.jp/en/prize.html	81	0.66
Albert Einstein world award of science http://www.consejoculturalmundial.org/awards-science.php	30	0.51
King Faisal international prize in science http://www.kff.com/en/King-Faisal-International-Prize	49	0.50
Max Planck research award http://www.mpg.de/mpResearchAward	20	0.49
Balzan Prizes http://www.balzan.org/en/about-us	133	0.47
Copley medal https://royalsociety.org/awards/copley-medal/	275	0.46
Royal medal https://royalsociety.org/awards/royal-medal/	421	0.45
L'Oréal-UNESCO awards for women in science http://www.loreal.com/Foundation/	74	0.44
Harvey Prize http://harveypz.net.technion.ac.il/	77	0.40
European Latsis Prize http://www.esf.org/	15	0.39
Prince of Asturias Award for technical and scientific research http://www.fpa.es/en/prince-of-asturias-awards/	65	0.37
Bower award and prize for achievement in science https://www.fi.edu/bower-laureates	23	0.37
Körber European science prize http://koerberprize.org/	119	0.37
International prize of the Fyssen foundation http://www.fondationfyssen.fr/en/international-prize/	33	0.36
Dan David prize for the future http://www.dandavidprize.org/	29	0.33

Table 5 continued

Award name and website	Number of recipients	Average reputation score
Lomonosov gold medal http://www.ras.ru/win/db/award_dsc.asp?P=id-1.ln-en	94	0.32
Dannie Heineman award http://adw-goe.de/en/awards/categories/dannie-heineman-preis/	29	0.30
Newcomb Cleveland prize http://www.aaas.org/page/aaas-newcomb-cleveland-prize	107	0.30
Gregori Aminoff prize http://www.kva.se/en/Prizes/Gregori-Aminoff-Prize/	44	0.29
John J. Carty award for the advancement of science http://www.nasonline.org/about-nas/awards/john-j-carty-award.html	31	0.28

Table 6 36 Awards in life sciences and medicine

Award name and website	Number of recipients	Average reputation score
Nobel Prize in physiology or medicine http://www.nobelprize.org/	204	1.00
Albert Lasker basic medical research award http://www.laskerfoundation.org/awards/index.htm	149	0.72
The Canada Gairdner international award http://www.gairdner.org/content/awards	323	0.60
Lasker~DeBaakey clinical medical research award http://www.laskerfoundation.org/awards/index.htm	140	0.60
The Shaw prize in life science and medicine http://www.shawprize.org/en/	21	0.60
The Canada Gairdner global health award http://www.gairdner.org/content/awards	5	0.58
Wolf prize in medicine http://www.wolffund.org.il/	48	0.56
The Kavli prize in neuroscience http://www.kavliprize.org/	9	0.55
Crafoord prize in biosciences http://www.crafoordprize.se/	14	0.52
The Louis-Jeantet prize for medicine http://www.jeantet.ch/en/support-to-european-research/louis-jeantet-prize.php	78	0.49
Robert Koch award http://www.robert-koch-stiftung.de/	89	0.49
Lasker~Koshland special achievement award in medical science http://www.laskerfoundation.org/awards/index.htm	13	0.48
King Faisal international prize for medicine http://www.kff.com/en/King-Faisal-International-Prize	61	0.47
Robert Koch gold medal http://www.robert-koch-stiftung.de/	41	0.47

Table 6 continued

Award name and website	Number of recipients	Average reputation score
Paul Ehrlich and Ludwig Darmstaedter prize http://www.uni-frankfurt.de/48209019/paul_ehrlich	116	0.44
Heineken prize for medicine https://www.knaw.nl/en/awards/prijzen/heinekenprijzen	13	0.44
Darwin medal https://royalsociety.org/awards/darwin-medal/	66	0.43
International prize for biology http://www.jsps.go.jp/english/e-biol/index.html	29	0.43
The Louisa Gross Horwitz prize http://www.cumc.columbia.edu/research/horwitz-prize/	94	0.43
Heineken prize for biochemistry and biophysics https://www.knaw.nl/en/awards/prijzen/heinekenprijzen	22	0.41
Benjamin Franklin medal in life science https://www.fi.edu/benjamin-franklin-medals-nominations	15	0.39
Breakthrough prize in life sciences https://breakthroughprize.org/	11	0.39
Rosenstiel award http://www.brandeis.edu/rosenstiel/rosenstielaward/index.html	87	0.38
Wiley prize in biomedical sciences http://as.wiley.com/WileyCDA/Section/id-390059.html	31	0.38
TWAS prize in biology http://twas.org/opportunity/twas-2015-prizes	35	0.36
International cosmos prize http://www.expo-cosmos.or.jp/main/cosmos/about_e.html	21	0.35
The Massry prize http://keck.usc.edu/Research/Distinguished_Activities/Massry_Prize.aspx	34	0.34
ASBMB-Merck award http://www.asbmb.org/Page.aspx?id=508	35	0.34
Pearl Meister Greengard prize http://greengardprize.rockefeller.edu/	15	0.34
TWAS prize in medical sciences http://twas.org/opportunity/twas-2015-prizes	30	0.31
Crafoord prize in polyarthritis http://www.crafoordprize.se/	10	0.30
J. Allyn Taylor international prize in medicine http://www.robarts.ca/about-j-allyn-taylor-international-prize-medicine	48	0.30
The Danone international prize for nutrition http://www.danoneinstitute.org/nutrition-science-support/danone-international-prize-nutrition	9	0.29
Jessie Stevenson Kovalenko medal http://www.nasonline.org/about-nas/awards/kovalenko-medal.html	22	0.26
Judson Daland prize for outstanding achievement in clinical investigation http://www.amphilsoc.org/prizes/daland	12	0.24
Tobias prize http://www.kva.se/en/Prizes/Tobias-Prize/	3	0.18

Table 7 63 Awards in natural sciences

Subject	Award name and website	Number of recipients	Average reputation score
Astronomy	Crafoord prize in astronomy http://www.crafoordprize.se/	9	0.77
	The Kavli prize in astrophysics http://www.kavliprize.org/	8	0.72
	The Shaw prize in astronomy http://www.shawprize.org/en/	18	0.70
	The gold medal of royal astronomical society for astronomy http://www.ras.org.uk/awards-and-grants/awards/2261-gold-medal-a	180	0.64
	The Bruce medal http://www.phys-astro.sonoma.edu/BruceMedalists/	106	0.58
	Dannie Heineman prize for astrophysics https://aas.org/about/grants-and-prizes/dannie-heineman-prize-astrophysics	36	0.52
	James Craig Watson medal http://www.nasonline.org/about-nas/awards/james-craig-watson-medal.html	36	0.48
	Henry Draper medal http://www.nasonline.org/about-nas/awards/henry-draper-medal.html	52	0.47
Chemistry	Nobel Prize in chemistry http://www.nobelprize.org/	166	1.00
	Wolf Prize in chemistry http://www.wolffund.org.il/	45	0.74
	Priestley medal http://www.acs.org/content/acs/en/funding-and-awards/awards-national/bytopic/priestley-medal.html	77	0.68
	Welch award in chemistry http://www.welch1.org/awards/	45	0.60
	NAS award in chemical sciences http://www.nasonline.org/about-nas/awards/chemical-sciences.html	34	0.52
	Faraday lectureship prize http://www.rsc.org/ScienceAndTechnology/Awards/FaradayLectureshipPrize/	39	0.51
	Davy medal https://royalsociety.org/awards/davy-medal/	144	0.48
	Benjamin Franklin medal in chemistry https://www.fi.edu/benjamin-franklin-medals-nominations	14	0.47
	Peter Debye award in physical chemistry http://www.acs.org/content/acs/en/funding-and-awards/awards-national/bytopic/peter-debye-award-in-physical-chemistry.html	48	0.46
	Roger Adams award in organic chemistry http://www.acs.org/content/acs/en/funding-and-awards/awards-national/bytopic/roger-adams-award-in-organic-chemistry.html	28	0.45
	TWAS prize in chemistry http://twas.org/opportunity/twas-2015-prizes	36	0.40
	Claude S. Hudson award in carbohydrate chemistry http://www.acs.org/content/acs/en/funding-and-awards/awards-national/bytopic/claude-s-hudson-award-in-carbohydrate-chemistry.html	58	0.34

Table 7 continued

Subject	Award name and website	Number of recipients	Average reputation score
Earth sciences	Crafoord prize in geosciences http://www.crafoordprize.se/	13	0.85
	Wollaston medal https://www.geolsoc.org.uk/About/Awards-Grants-and-Bursaries/Society-Awards/Wollaston-Medal	185	0.66
	The gold medal of royal astronomical society for geophysics http://www.ras.org.uk/awards-and-grants/awards/2262-gold-medal-g	70	0.65
	Penrose medal http://www.geosociety.org/awards/aboutAwards.htm#penrose	84	0.64
	The Vetlesen prize http://www.ldeo.columbia.edu/vetlesen-prize/	28	0.62
	Arthur L. Day prize and lectureship http://www.nasonline.org/about-nas/awards/arthur-l-day-prize.html	15	0.57
	Arthur L. Day medal http://www.geosociety.org/awards/aboutAwards.htm#day	66	0.56
	The Carl-Gustaf Rossby research medal http://www2.ametsoc.org/ams/index.cfm/about-ams/ams-awards-fellows-and-honorary-members/awards/awards-list/the-carl-gustaf-rossby-research-medal/	55	0.47
	Alexander Agassiz medal http://www.nasonline.org/about-nas/awards/alexander-agassiz-medal.html	47	0.41
	Benjamin Franklin medal in earth and environmental science https://www.fi.edu/benjamin-franklin-medals-nominations	15	0.39
	A.G. Huntsman award http://huntsmanaward.org/	37	0.39
	International meteorological organization (imo) prize http://www.wmo.int/pages/about/awards/awards_imo_new_en.html	59	0.36
	G. K. Warren prize http://www.nasonline.org/about-nas/awards/g-k-warren-prize.html	11	0.33
	TWAS prize in earth sciences http://twas.org/opportunity/twas-2015-prizes	13	0.32
	Guy Bomford prize http://iag.dgfi.badw.de/fileadmin/handbook_2012/107_Rules_for_Bomford_Prize.pdf	10	0.29
	Mathematics	The Abel prize http://www.abelprize.no/	13
Fields medal http://www.mathunion.org/general/prizes		53	0.95
Wolf prize in mathematics http://www.wolffund.org.il/		54	0.84
Crafoord prize in mathematics http://www.crafoordprize.se/		11	0.78
The Shaw prize in mathematical sciences http://www.shawprize.org/en/		15	0.77

Table 7 continued

Subject	Award name and website	Number of recipients	Average reputation score
	Rolf Nevanlinna prize http://www.mathunion.org/general/prizes	8	0.75
	NAS award in mathematics http://www.nasonline.org/about-nas/awards/mathematics.html	7	0.53
	Rolf Schock prize in mathematics http://www.rolfschockprizes.se/	9	0.52
	Bôcher memorial prize http://www.ams.org/profession/prizes-awards/ams-prizes/bocher-prize	32	0.50
	George David Birkhoff prize in applied mathematics http://www.ams.org/profession/prizes-awards/ams-prizes/birkhoff-prize	16	0.49
	Norbert Wiener prize in applied mathematics http://www.ams.org/profession/prizes-awards/ams-prizes/wiener-prize	16	0.48
	Oswald Veblen prize in geometry http://www.ams.org/profession/prizes-awards/ams-prizes/veblen-prize	29	0.43
	TWAS prize in mathematics http://twas.org/opportunity/twas-2015-prizes	31	0.38
Physics	Nobel prize in physics http://www.nobelprize.org/	196	1.00
	Wolf prize in physics http://www.wolffund.org.il/	54	0.72
	Isaac newton medal http://www.iop.org/about/awards/newton/page_38399.html	6	0.57
	Max planck medal http://www.dpg-physik.de/preise/preistraeger_mp.html	77	0.56
	Fundamental physics prize https://breakthroughprize.org/	10	0.55
	Dannie Heineman prize for mathematical physics http://www.aps.org/programs/honors/prizes/heineman.cfm	72	0.54
	Lorentz medal http://www.knaw.nl/en/awards/prijzen/lorentzmedaille	21	0.54
	Henri Poincaré prize http://www.iamp.org/page.php?page=page_prize_poincare	20	0.50
	Stern-Gerlach medal http://www.dpg-physik.de/preise/preistraeger_sg.html	21	0.47
	Benjamin Franklin medal in physics https://www.fi.edu/benjamin-franklin-medals-nominations	26	0.46
	UNESCO's Niels Bohr gold medal http://news.ku.dk/all_news/2010/2010.9/unesco_niels_bohr_gold_medal_awarded_to_prominent_physicists_kopi/	11	0.45
	Physics Frontiers prize https://breakthroughprize.org/	5	0.38
	New Horizons in Physics prize https://breakthroughprize.org/	3	0.35

Table 7 continued

Subject	Award name and website	Number of recipients	Average reputation score
	TWAS prize in physics http://twas.org/opportunity/twas-2015-prizes	34	0.33
	Rumford medal https://royalsociety.org/awards/rumford-medal/	99	0.26

Table 8 54 Awards in engineering sciences

Field/subject	Award name and website	Number of recipients	Average reputation score
Cross-disciplinary	Kyoto prize in advanced technology http://www.inamori-f.or.jp/e_kp_out_out.html	34	0.63
	The Kavli prize in nanoscience http://www.kavliprize.org/	5	0.62
	Charles Stark Draper prize http://www.draperprize.org/	43	0.56
	Queen Elizabeth prize for engineering http://qeprize.org/	5	0.51
	Millennium technology prize http://taf.fi/en/millennium-technology-prize/	13	0.50
	The IET Faraday medal http://www.theiet.org/resources/library/archives/institution-history/faraday-medallists.cfm	91	0.43
	TWAS prize in engineering sciences http://twas.org/opportunity/twas-2015-prizes	14	0.37
	John Fritz medal http://www.aaes.org/awards/fritz_past.cfm	108	0.35
Chemical engineering	R.H. Wilhelm award in chemical reaction engineering http://www.aiche.org/community/awards/rh-wilhelm-award-chemical-reaction-engineering	43	0.56
	Alpha Chi Sigma award for chemical engineering research http://www.aiche.org/community/awards/alpha-chi-sigma-award-chemical-engineering-research	48	0.54
	Founders award for outstanding contributions to the field of chemical engineering http://www.aiche.org/community/awards/founders-award-outstanding-contributions-field-chemical-engineering	117	0.52
	Professional progress award in chemical engineering http://www.aiche.org/community/awards/professional-progress-chemical-engineering	66	0.50
	Jacques Villermaux medal http://www.efce.info/JacquesVillermauxMedal.html	4	0.50
	Dieter Behrens medal http://www.efce.info/EFCE+Awards/Dieter+Behrens+Medal.html	5	0.33

Table 8 continued

Field/subject	Award name and website	Number of recipients	Average reputation score
Civil engineering	Freyssinet medal http://www.fib-international.org/awards	26	0.50
	International award of merit in structural engineering http://www.iabse.org/IABSE/IABSE_Association/Awards	37	0.50
	IABSE prize http://www.iabse.org/IABSE/IABSE_Association/Awards	30	0.46
	Theodore von Karman medal http://www.asce.org/templates/award-detail.aspx?id=1602	52	0.42
	Fib medal of merit http://www.fib-international.org/awards	76	0.38
Electrical and information engineering	A. M. Turing award http://amturing.acm.org/	61	0.82
	IEEE medal of honor http://www.ieee.org/about/awards/medals/medalofhonor.html	93	0.68
	Benjamin Franklin medal in electrical engineering https://www.fi.edu/benjamin-franklin-medals-nominations	13	0.58
	IEEE edison medal http://www.ieee.org/about/awards/medals/edison.html	101	0.58
	The Okawa prize http://www.okawa-foundation.or.jp/en/activities/prize/	40	0.55
	The Knuth prize http://www.sigact.org/Prizes/Knuth/	13	0.55
	Royal Society Milner award https://royalsociety.org/awards/milner-award/	6	0.50
	Benjamin Franklin medal in computer and cognitive science https://www.fi.edu/benjamin-franklin-medals-nominations	17	0.48
	W. Wallace McDowell award http://www.computer.org/web/awards/mcdowell	46	0.43
	BBVA foundation frontiers of knowledge award in information and communication technologies http://www.fbbva.es/TLFU/tlfu/ing/microsites/premios/fronteras/index.jsp	6	0.40
	World technology award in communications technology (for individuals) http://www.wtn.net/	12	0.35
	World technology award in it software (for individuals) http://www.wtn.net/	12	0.33
	World technology award in IT hardware (for individuals) http://www.wtn.net/	15	0.30
Energy science and engineering	Eni award https://www.eni.com/eni-award/eng/home.shtml	100	0.55
	The Enrico Fermi award http://science.energy.gov/fermi	64	0.53
	The global energy prize http://www.globalenergyprize.org/en/	29	0.48

Table 8 continued

Field/subject	Award name and website	Number of recipients	Average reputation score
Environmental science and engineering	World technology award in energy (for individuals) http://www.wtn.net/	12	0.43
	Tyler prize for environmental achievement http://tylerprize.usc.edu/	71	0.75
	Volvo environment prize http://www.environment-prize.com/	40	0.72
	Stockholm water prize http://www.siwi.org/prizes/stockholmwaterprize/	25	0.69
	BBVA foundation frontiers of knowledge award in ecology and conservation biology http://www.fbbva.es/TLFU/tlfu/ing/microsites/premios/fronteras/index.jsp	7	0.61
	BBVA foundation frontiers of knowledge award in climate change http://www.fbbva.es/TLFU/tlfu/ing/microsites/premios/fronteras/index.jsp	6	0.59
	Heineken prize for environmental sciences https://www.knaw.nl/en/awards/prijzen/heinekenprijzen	12	0.55
	The Zayed international prize for the environment (scientific/technological achievements) http://www.zayedprize.org.ae/	9	0.44
Materials science and engineering	World technology award in environment (for individuals) http://www.wtn.net/	11	0.36
	Von hippel award http://www.mrs.org/vonhippel/	37	0.68
	MRS medal award http://www.mrs.org/medal/	42	0.61
	David Turnbull lectureship http://www.mrs.org/turnbull/	22	0.53
	Outstanding young investigator award http://www.mrs.org/oyi/	22	0.39
	World technology award in materials (for individuals) http://www.wtn.net/	14	0.35
Mechanical engineering	Royal society Armourers & Brasiers' company prize https://royalsociety.org/awards/armourers-brasiers-prize/	16	0.29
	ASME medal https://www.asme.org/about-asme/get-involved/honors-awards/achievement-awards/asme-medal	81	0.59
	Timoshenko medal https://www.asme.org/about-asme/get-involved/honors-awards/achievement-awards/timoshenko-medal	60	0.59
	Benjamin Franklin medal in mechanical engineering https://www.fi.edu/benjamin-franklin-medals-nominations	8	0.50
	Gibbs brothers medal http://www.nasonline.org/about-nas/awards/gibbs-brothers-medal.html	17	0.25

Table 9 33 Awards in social sciences

Field/Subject	Award name and website	Number of recipients	Average reputation score
Cross-disciplinary	Holberg international memorial prize http://www.holbergprisen.no/en/holberg_prize	10	0.42
	The british academy medal http://www.britac.ac.uk/prizes/British_Academy_Medal.cfm	4	0.42
	Albert O. Hirschman prize http://www.ssrc.org/hirschman/	3	0.39
	Talcott Parsons prize https://www.amacad.org/content/about/about.aspx?i=9	9	0.35
	Prince of Asturias award for social sciences http://www.fpa.es/en/prince-of-asturias-awards/	37	0.32
	A.SK social science award http://www.wzb.eu/en/about-the-wzb/ask-award	4	0.28
	Nils Klim Prize http://www.holbergprisen.no/en/nils-klim-prize.html	10	0.27
	Economics	The Sveriges Riksbank prize in economic sciences in memory of alfred nobel http://www.nobelprize.org/	74
The Erwin Plein Nemmers prize in economics http://www.nemmers.northwestern.edu/economics.html		10	0.52
The Deutsche Bank prize in financial economics https://www.ifk-cfs.de/dbprize.html		5	0.48
Yrjö Jahnsson award http://www.eeassoc.org/index.php?page=25		16	0.48
BBVA foundation frontiers of knowledge award in economics, finance and management http://www.fbbva.es/TLFU/tlfu/ing/microsites/premios/fronteras/index.jsp		7	0.44
IZA prize in labor economics http://www.iza.org/en/webcontent/prize/iza_prize		16	0.38
The Stephen A. Ross prize in financial economics http://farfe.org/ross_prize.html		5	0.34
Bernácer Prize http://www.res.org.uk/view/art7Jan14Features.html		12	0.30
Leontief prize for advancing the frontiers of economic thought http://www.ase.tufts.edu/gdae/about_us/leontief.html#top		24	0.20
Global economy prize for economics https://www.ifw-kiel.de/events-1/global-economy-prize		9	0.19
The Ewing Marion Kauffman prize medal for distinguished research in entrepreneurship http://www.kauffman.org/what-we-do/programs/entrepreneurship/building-the-field-of-entrepreneurship-research		7	0.18

Table 9 continued

Field/Subject	Award name and website	Number of recipients	Average reputation score
Law	The Stockholm prize in criminology http://www.su.se/english/about/prizes-awards/the-stockholm-prize-in-criminology	13	0.75
	Edwin H. Sutherland award http://www.asc41.com/awards/awardWinners.html#ehsa	54	0.68
	European Criminology award http://www.esc-eurocrim.org/news040211a.shtml	7	0.63
	August Vollmer award http://www.asc41.com/awards/awardWinners.html#ava	55	0.50
	Henry M. Phillips prize http://www.amphilsoc.org/prizes/phillips	25	0.38
	Elizabeth Haub prize for environmental law http://www.juridicum.su.se/ehp/history.html	50	0.38
	World Technology Award in Law (for Individuals) http://www.wtn.net/	11	0.25
Political science	The Johan Skytte prize in political science http://skytteprize.statsvet.uu.se/	20	0.61
	The Stein Rokkan prize for comparative social science research http://www.worldsocialscience.org/activities/scientific-prizes/stein-rokkan/	23	0.54
	Karl Deutsch award of international political science association http://www.ipsa.org/awards/karl-deutsch	6	0.48
	ECPR lifetime achievement award http://www.ecpr.eu/prizes/PrizeDetails.aspx?PrizeID=8	5	0.47
	Karl Deutsch award of international studies association http://www.ipsa.org/awards/karl-deutsch	30	0.41
	Prize of the foundation Mattei Dogan http://www.ipsa.org/awards/mattei-dogan	3	0.35
	Benjamin E. Lippincott Award http://www.apsanet.org/lippincottaward	26	0.33
	John Gaus award and lectureship http://www.apsanet.org/kausaward	28	0.33

Appendix 2

See Table 10.

Table 10 The response rates of reputation surveys in 16 subjects and fields

Field and subject	Total number of scientists surveyed	Total number of respondents	Response rate (%)
Life Sciences and medicine	669	68	10.2
<i>Natural sciences</i>			
Astronomy	77	17	22.1
Chemistry	192	36	18.8