

Frey, Bruno S.; Neckermann, Susanne

Working Paper

Awards in economics: towards a new field of inquiry

CESifo Working Paper, No. 2515

Provided in Cooperation with:

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: Frey, Bruno S.; Neckermann, Susanne (2009) : Awards in economics: towards a new field of inquiry, CESifo Working Paper, No. 2515, Center for Economic Studies and ifo Institute (CESifo), Munich

This Version is available at:

<https://hdl.handle.net/10419/26560>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Awards in Economics Towards a New Field of Inquiry

BRUNO S. FREY
SUSANNE NECKERMANN

CESIFO WORKING PAPER NO. 2515
CATEGORY 4: LABOUR MARKETS
JANUARY 2009

An electronic version of the paper may be downloaded

- *from the SSRN website:* www.SSRN.com
- *from the RePEc website:* www.RePEc.org
- *from the CESifo website:* www.CESifo-group.org/wp

Awards in Economics Towards a New Field of Inquiry

Abstract

Awards play a large role in the economics profession, which is documented by the large variety and number of awards. However, little scientific attention has been devoted to them. This paper documents the prevalence of awards in the economics profession and analyzes the number and type of awards received by the 1,200 leading economists included in *Who's Who in Economics*. First steps towards integrating awards into economic theory are undertaken.

JEL Code: D01.

Keywords: awards, non-monetary incentives, economics of economics.

Bruno S. Frey
University of Zurich
Institute for Empirical Research in
Economics
Winterthurerstrasse 30
8006 Zurich
Switzerland
bsfrey@iew.uzh.ch

Susanne Neckermann
University of Zurich
Winterthurerstrasse 30
8006 Zurich
Switzerland
sneckermann@iew.uzh.ch

Bruno S. Frey is Professor of Economics at the University of Zurich, ETH-Zurich and Research Director at CREMA – Center for Research in Economics, Management and the Arts, Switzerland, e-mail: bsfrey@iew.uzh.ch. He is author of more than a dozen books and more than 350 articles in professional academic journals (most of them in economics and a few in political science, sociology and psychology) Many of his recent writings are available at <http://www.iew.uzh.ch/chairs/frey/team/frey.html>. Susanne Neckermann is Assistant at the University of Zurich, Switzerland, e-mail: sneckermann@iew.uzh.ch. She is interested in inter-disciplinary research on incentives and motivation. Her writings are available at <http://www.iew.uzh.ch/chairs/frey/team/neckermann.html>.

I.

Introduction

Awards play a large role in the economics profession, as is documented by the large variety and number of awards handed out to economists from economists, such as the John Bates Clark Medal, the Nobel Prize, honorary doctorates and honorary fellowships. Despite the prevalence and importance of awards in our profession, little attention has been devoted to them.¹ A major exception and early precursor is the paper by Hansen and Weisbrod (1972) lamenting that “the economics profession provides only limited recognition for the outstanding contributions of its members”.

This paper documents the prevalence of awards in the economics profession today by discussing the prizes handed out by a selection of professional economic associations all over the world. The second section makes an effort to capture the relevance of economists' awards statistically, by analyzing the number and type of awards received by the 1,168 economics scholars included in the most recent edition of *Who's Who in Economics*. The third section takes a first step towards an integration of awards into economic theory. The final section concludes by pointing out aspects to be addressed in future research.

II.

Awards are Widespread Among Economists

The *American Economic Association* currently hands out two different awards (the John Bates Clark Medal and the Distinguished Fellow Award).² The AEA further nominates distinguished economists as Richard T. Ely Lecturers since 1962, and as foreign honorary members since 1975. Professional economics associations in other countries imitated the use of prizes. One of the other prominent associations in economics, the *European Economic Association*, for example, now bestows three awards (two biennial awards: the Hicks-Tinbergen Medal and the

Yrjö Jahnsson Award inaugurated in 1991 and 1993, respectively; as well as the Young Economist Award first presented in 1999). Regional and national economics associations have followed suit. To give just one example, the German *Verein für Socialpolitik*, the professional association of economists in Germany, Austria, and Switzerland, founded in 1873, have presented three awards since 1997 (the Gossen Prize was introduced in 1997, and in 2007 two more awards were established: the Reinhard Selten Prize and the Gustav Stolper Prize). However, the use of awards has not only spread to the leading economic societies outside the U.S., but also to associations in subfields of economics both within the U.S. and overseas. One example is the *American Agricultural Economics Association* that has handed out awards in seven different categories since 1997 (Distinguished Extension/Outreach Programs Awards, Distinguished Teaching Awards, Outstanding Master's Thesis Awards, Outstanding Doctoral Dissertation Awards, Professional Publication, Distinguished Policy Contribution Award, and General Recognition Awards).³ A second example is the *American Statistical Association* that hands out nine different awards, among them the Wilks Memorial Award (since 1964), the Gottfried E. Noether Awards (since 1999), the Statistics and Chemistry Award (since 1995), and the SPAIG Award (since 2002). One example of a subfield society outside the U.S. is the Institute for the Study of Labor (IZA), which has awarded the IZA Prize in Labor Economics since 2002.

Another widespread type of award are best paper prizes. For example, the *Journal of Financial Economics*, which hands out two best-paper prizes per year. The Jensen Prize is granted for the two best current papers in the field of corporate finance and organizations, and the Fama-DFA Prize, which covers publications in the field of capital markets and asset pricing. Both awards were inaugurated in 1997. Other best-paper prizes include the Smith Breeden Prize of the *Journal of Finance* (since 1990), the Arthur H. Cole Prize of the *Journal of Economic History* (since 1966), the Iddo Sarnat Annual Memorial Award by the *Journal of Banking and*

Finance (since 1986), the Royal Economic Society Prize by the *Economic Journal* (since 1990), the above mentioned Hicks-Tinbergen Medal by the *European Economic Review* (since 1991), the Best Paper Prize *Economic Inquiry* (since 1984), the Harry Johnson Prize by the *Canadian Journal of Economics* (since 1977), the H. Gregg Lewis Prize of the Journal of Labor Economics (since 1992), the Frisch Medal by *Econometrica* (1978), the William F. Sharpe Award by the *Journal of Financial and Quantitative Analysis* (since 1999), the Tjalling Koopmans Prize by *Econometric Theory* (since 1998), the EALE Labor Economics Prize by *Labor Economics* (since 2000), and many others.⁴ This long, but not complete list of best-paper prizes illustrates the trend in the creation of new awards. As can be seen, a large number of awards have been created in the '90s.

Awards have also spread to universities. Northwestern University, for instance, has handed out the Erwin Plein Nemmers Prize in Economics since 1994. Most universities these days also present teaching awards. One example is the Charles W. Oswald Award for Teaching Excellence in Economics of the Economics Department at the University of Kansas, which began in 2007.

To further substantiate the importance of awards in economics, consider the *NBER Reporter* of Winter 2006/7, where pages 35-38 are devoted to "NBER researchers (who) received honors, prizes, awards, and professional kudos during 2006" (excluding those that the individual received from his or her own university). Among the 140 individuals listed, the first and the last entries are quoted here as examples:

Daron Acemoglu received the 2005 John Bates Clark Medal in economics and the Turkish Academy of Sciences Distinguished Science Award; he also was named a Fellow of the American Academy of Arts and Sciences.

Richard J. Zeckhauser and Kip W. Viscusi won the 2006 Ronald H. Coase Prize for

the best paper published by a University of Chicago Law School Journal.

These few examples may serve as illustrations for the fact that awards have become extremely diverse and popular in economics.

To further document the prevalence of awards, we use *Who's Who in Economics*⁵ as a data source for studying the number and kinds of awards economists receive, and also how these economic awards are distributed over the globe. Despite the fact that the *Who's Who* only contains self-reported data, it is the best and most comprehensive data source available on awards in economics. We constructed a dataset comprising the information of those 743 economists in the *Who's Who* who provide personal information to the editors of the book. Taken together, the economists report a total of 3,607 honors. As one would expect, the distribution is skewed: while most economists indicate having received few if any awards, a small select group indicate having received many (see Table 1).

TABLE 1 ABOUT HERE

Many people would intuitively suggest that awards are most prevalent in the United States, as awards ranging from the title "Employee of the Month" to "Distinguished Fellow of the AEA" typically spring to people's minds. Our data confirm this. According to the self-declaration of the economists in the *Who's Who*, more than 80% of the awards went to American economists and only 13% to European economists, with half of the latter working in Great Britain.⁶ All other countries can be ignored in terms of the overall percentage of awards. However, the large number of awards in the United States is not driven by the fact that economists in the United States receive, on average, more awards than economists working in other countries (see last column of Table 2⁷). Rather, the large quantity of awards in the USA is driven by the fact that the vast majority (78%) of noteworthy economists (according to the criteria used by *Who's Who in Economics*), live and work there, whereas only 16% live in Europe (see Table 2). Outside the

USA, a notable number of economists work in Great Britain (9%), followed by Canada (3%). The other countries represented provide negligible numbers (1% or less). Four of the six continents (Africa, Asia, South America and Oceania) are basically absent.

TABLE 2 ABOUT HERE

The distribution of awards according to academic institutions is displayed in Table 3.

TABLE 3 ABOUT HERE

The largest percentage of awards goes to Harvard (9% of all awards), followed by MIT, Berkeley, and Chicago (4–5%), and by the universities of Pennsylvania, Princeton, Stanford, and Columbia (3%). Non-US universities (such as Oxford, Cambridge, and Tel Aviv) receive at most 1% of all awards as does the University of Stockholm (also 1% of all awards), which receives the highest number of awards in Continental Europe.⁸ Table 4 shows those individuals who received the largest numbers of awards according to *Who's Who in Economics*. Milton Friedman is the winner with 50 awards. He alone received more awards (1.4%) than the total for all economists working at such prestigious universities as Oxford or Cambridge. Friedman is followed by Jeffrey Sachs, William Baumol, and Duncan Luce (each having received between 30 and 40 awards). Other people with a large number of awards are Gary Becker and Daniel McFadden (26 awards).

TABLE 4 ABOUT HERE

To illustrate the number and variety of awards listed in the *Who's Who*, Table A in the Appendix shows the awards listed by Milton Friedman, and Table B in the Appendix those of Gary Becker (up to the year 2000). The most important award for each is certainly the Nobel Prize, but both also received the John Bates Clark Medal and 19 and 13 Honorary Degrees, respectively. Friedman lists two state awards, one order (The Grand Cordon of First Class Order of Sacred Treasure), and the Presidential Medal of Freedom.

As can be seen in the list of awards indicated by Milton Friedman and Gary Becker, a large proportion of honors listed by prominent economists are honorary PhDs and Fellowships. These kinds of honors are bestowed on economists mostly by other economists. Fellowships are comparable to Halls of Fame in sport. While sports associations admit prominent sportsmen into their respective Halls of Fame, many economic associations bestow the honor of being named a fellow of that society on renowned economists in recognition of their achievements. Akin to a sporting Hall of Fame, the list of fellows is then published. Examples are the list of Distinguished Fellows of the AEA (since 1965), the list of Fellows of the Econometric Society (since 1933), and the list of Fellows of the American Statistical Association (since 1914). These examples show that such Halls of Fame have a long tradition in economics. In *Who's Who in Economics*, over 30% of the honors listed are honorary fellowships and memberships, which illustrates the importance of these kinds of awards in our discipline.

III.

Towards Integrating Awards into Economic Theory

There may be various reasons for the neglect of awards in economics. First, awards may be considered to be less efficient incentives than monetary compensation, because they are not fungible and difficult to apply marginally.

Second awards may just be one result of high motivation and success, and not a contributing cause. While awards are sometimes bestowed on people who are already famous to associate those individuals with the award-giving organization, the majority do serve as direct or indirect incentives. Awards are direct incentives when they are known to be handed out for a particular kind of effort, e.g. an award for best customer service in the next year. Awards serve as indirect incentives when individuals cannot or do not consciously work towards them; for example, state

orders for acts of exceptional civil courage. Then, awards serve as indirect incentives as they create role models, highlight the values of a society, and also bring prestige to individuals who have acted similarly without being chosen as award recipients. Additionally, changes in norms, values, and role models also encourage other individuals to engage in the recognized activities.

Third, it may be thought that awards only motivate insofar as they lead to future material or immaterial benefits whose impact on behavior can be studied directly.⁹ Ginsburgh and van Ours (2003), for instance, show that winning the Queen Elizabeth musical competition – the best-known international competition for piano (and violin) – significantly increases subsequent market performance of the artist. However, it has also been demonstrated in a field experiment that people are motivated by awards, even without monetary consequences (Neckermann and Kosfeld 2008). In contrast, some prizes, medals, and awards that are accompanied by large sums of money are relatively unknown and have no prestige, even within the relevant community. A pertinent example is the Balzan Prize, awarded to eminent scholars since 1961 by the Italian and Swiss presidents. It comes with prize money of one million Swiss Francs (US\$1 million). Few people know about it, or attribute much prestige to it, certainly compared to the Nobel Prize.

Fourth, economists may shy away from the study of awards because of serious data limitations. To our knowledge, there is no comprehensive list - spanning the different types and levels of awards in the various spheres of society (government, the arts, culture, media, sports, religion, academia, not-for-profit, and for-profit enterprises), countries, and time periods. Only partial and inconsistent evidence is available from scattered sources. This applies in particular to the many awards given by private institutions, such as non-profit organizations, clubs, and firms. Orders given by monarchs or governments are somewhat better documented.¹⁰ In general, it seems to be impossible to measure the number of awards in a country from the supply side. There are hundreds of thousands, if not millions (and, moreover, a constantly

changing set), of institutions bestowing awards.

IV.

Future research

Economics as a discipline has a large number of well-established awards and honors to recognize outstanding economists. At the same time, there are indications that the number and variety of awards existing in economics has grown over the last decades, pointing to a potential increase in importance of these kinds of social, predominantly non-monetary incentives in our discipline. Moreover, the importance of awards extends far beyond economics. They are omnipresent in the economy and society at large, indicating that they fulfill important functions. Taken together, this suggests a major gap in the economic literature on incentives that has so far refrained from studying awards as instruments to motivate and compensate individuals. While there is no literature on awards as incentives, any such analysis can benefit substantially from the work undertaken in various fields of economics that address aspects important for the study of awards (like status incentives, tournaments, signaling, and non-monetary incentives) and which may form the basic ingredients for a theory of awards.

As of yet, many interesting and important questions are open for future research. One of the few research questions related to the topic of awards that has already been addressed by some researchers, is whether awards are indeed handed out to the most deserving individuals. This research bears on the important issue of award quality, which is essential as only awards that are held in esteem are effective means for motivating and compensating individuals. Coupé (2005), for instance, argues that the selection of the best candidates as winners is a necessary, but not sufficient, condition for a best-paper prize to be held in high esteem.

An important question to be addressed in future research relates to the optimal number and the optimal variety of awards. In 1972, Hansen and Weisbrod argued that there were too few

awards in economics. Today, the picture is less clear: while awards have increased in number and scope, it is currently impossible to judge whether the optimum number has already been reached or even surpassed.

Another direction for future research is the study of awards and prizes beyond economics. Awards are also of great relevance in other spheres of life and have grown in number there in a similar fashion to that documented here in economics. Using the self-reports on awards of individuals listed in the *International Who's Who (IWW)* (Neal, 2006), a guidebook comprising the 20,000 most notable and accomplished people in 212 countries, the vast amount and the variety of awards becomes obvious. These data allow us to study what kinds of prizes are prevalent in different occupational sectors, and if the number and type of prizes handed out in a certain occupational sector varies, for instance, between countries. It is further possible to analyze if different kinds of awards like state honors or business awards are used with different frequencies in different countries and also, which sectors of society (politics, business, academics) receives the respective type of award most. Yet another direction for future research is the study of the development of the number of awards. Specifically, it would be interesting to look at differences in this development over time in different sectors and countries and analyze the determinants of these differences. One could, for instance, investigate what country or sector characteristics result in this country or sector being a forerunner in terms of the explosion in awards. Revealing the underlying determinants of the supply and demand for awards would then also allow us to make predictions.

Before going beyond a descriptive analysis of awards as presented here, major data limitations must be addressed. It seems to be impossible to measure the total number of awards, award characteristics, and type of recipients for any given country from the supply side. Worldwide, there are hundreds of thousands, if not millions (and, moreover, a constantly changing set) of institutions bestowing awards. Most of these do not disclose information on the number of

awards handed out per year, the activities the awards are handed out for, the characteristics of the recipients etc. The data sets from *The International Who's Who* and *Who's Who in Economics* allow us to focus on the recipients and the awards they voluntarily indicate. The idea is that the number of awards a person indicates reflects, to some extent, the importance the person attributes to awards in general and the value of the specific awards received. Hence, self-declaration helps us to capture the quality aspect of awards, as individuals only indicate those awards that matter to them. Nevertheless, it is an important task of future research to find other sources of data on awards and to explicitly deal with the differences in award quality.

TABLES FOR TEXT

Table 1: Economists' Awards per Capita

Awards per Person	Frequency	Share
0	127	0.17
1	79	0.11
2	91	0.12
3	91	0.12
4	63	0.08
5	63	0.08
6	50	0.07
7	30	0.04
8	32	0.04
9	23	0.03
10	11	0.01
11	17	0.02
12	12	0.02
13	12	0.02
>13*	42	0.05
Total	743	1.00

* The maximum number of awards per person is 50.

Source: Own calculations using data constructed from *Who's Who in Economics* (Blaug and Vane, 2003).

Table 2: Economists' Awards According to Country of Residence

Residence	Entries	Share of Entries	Total Awards	Share of Awards	Average Awards Per Person
USA	579	0.78	2,838	0.82	4.9
UK	64	0.09	241	0.07	3.8
Canada	22	0.03	51	0.01	2.3
France	11	0.01	41	0.01	3.7
Israel	10	0.01	50	0.01	5.0
Netherlands	8	0.01	32	0.01	4.0
Italy	6	0.01	10	0.00	1.7
Sweden	6	0.01	35	0.01	5.8
Germany	5	0.01	33	0.01	6.6
Australia	4	0.01	14	0.00	3.5
Denmark	4	0.01	11	0.00	2.8
Hong Kong	3	0.00	5	0.00	1.7
Japan	3	0.00	14	0.00	4.7
Spain	3	0.00	16	0.00	5.3
Belgium	2	0.00	10	0.00	5.0
Greece	2	0.00	7	0.00	3.5
Korea	2	0.00	9	0.00	4.5
Switzerland	2	0.00	8	0.00	4.0
Chile	1	0.00	6	0.00	6.0
China	1	0.00	19	0.01	19.0
Cyprus	1	0.00	1	0.00	1.0
Finland	1	0.00	4	0.00	4.0
Ireland	1	0.00	9	0.00	9.0
Singapore	1	0.00	0	0.00	0.0
Thailand	1	0.00	17	0.00	17.0
Total	743	1.00	3,481	1.00	5.1

Source: Own calculations using data constructed from *Who's Who in Economics* (Blaug and Vane, 2003).

Table 3: Economists' Awards According to Institution of Current Employment

Current Institution	Awards	Share	No. Entries
Harvard Univ.	301	0.09	47
MIT	175	0.05	24
UC Berkeley	174	0.05	31
Univ. Chicago	147	0.04	18
Univ. Pennsylvania	114	0.03	15
Princeton Univ.	104	0.03	17
Stanford Univ.	103	0.03	17
Columbia Univ.	100	0.03	15
Northwestern Univ.	80	0.02	21
Yale Univ.	78	0.02	14
New York Univ.	74	0.02	12
Hoover Inst.	63	0.02	3
Univ. Michigan	60	0.02	13
Univ. Wisconsin Madison	59	0.02	15
UC San Diego	53	0.02	13
UC Irvine	51	0.01	6
Univ. Cambridge	48	0.01	7
Univ. Oxford	48	0.01	9
Tel Aviv Univ.	47	0.01	8
Cornell Univ.	45	0.01	14
Ohio State Univ.	44	0.01	10
Univ. Maryland	43	0.01	12
UCLA	41	0.01	11
Indiana Univ.	38	0.01	9
Univ. North Carolina Chapel Hill	38	0.01	7
Univ. Southern California	34	0.01	5
California Inst. Tech.	31	0.01	5
Univ. Rochester	31	0.01	7
Univ. Minnesota	30	0.01	6
UC Davis	29	0.01	4
Univ. Coll. London	29	0.01	6
LSE	28	0.01	8

Univ. Stockholm	28	0.01	2
...
<hr/>			
TOTAL	3481	1	743

Source: Own calculations using data constructed from *Who's Who in Economics* (Blaug and Vane, 2003).

Table 4: Rank-order of Economists According to the Number of Awards Received

Last Name	First Name	Current Institution	Awards	Share
Friedman	Milton	Hoover Inst.	50	0.014
Sachs	Jeffrey David	Columbia Univ.	42	0.012
Baumol	William Jack	New York Univ.	34	0.010
Luce	R. Duncan	UC Irvine	31	0.009
Becker	Gary Stanley	Univ. Chicago	26	0.007
McFadden	Daniel L.	UC Berkeley	26	0.007
Goetzmann	William N.	Yale Univ.	23	0.007
Kahneman	Daniel	Princeton Univ.	22	0.006
Cummins	J. David	Univ. Pennsylvania	20	0.006
Dornbusch	Rudiger	MIT	20	0.006
Feldstein	Martin Stuart	Harvard Univ.	20	0.006
Grossman	Sanford Jay	Univ. Pennsylvania	20	0.006
Hendry	David Forbes	Univ. Oxford	20	0.006
Just	Richard E.	Univ. Maryland	19	0.005
Lin	Justin Yifu	Peking Univ.	19	0.005
Rubinstein	Ariel	Tel Aviv Univ.	19	0.005
Rubin	Donald Bruce	Harvard Univ.	18	0.005
Chiswick	Barry Raymond	Univ. Illinois Chicago	17	0.005
Jain	Dipak C.	Chulalongkorn Univ.	17	0.005
Milgrom	Paul Robert	Stanford Univ.	17	0.005
Sandler	Todd	Univ. Southern California	17	0.005
Alston	Julian Mark	UC Davis	16	0.005
Jorgenson	Dale W.	Harvard Univ.	16	0.005
Markusen	Ann Roell	Univ. Minnesota	16	0.005
Phillips	Peter C.B.	Yale Univ.	16	0.005
Plott	Charles R.	California Inst. Tech.	16	0.005
Stiglitz	Joseph Eugene	Columbia Univ.	16	0.005
Behrman	Jere Richard	Univ. Pennsylvania	15	0.004
Benson	Bruce Lowell	Florida State Univ.	15	0.004
Diamond	Peter Arthur	MIT	15	0.004
Frankel	Jeffrey Alexander	NBER	15	0.004

Lindbeck	Assar Carl Eugen	Univ. Stockholm	15	0.004
Ostrom	Elinor	Indiana Univ.	15	0.004
Sirmans	Clemon Fielding	Univ. Connecticut	15	0.004
...
			3481	1.000

Source: Own calculations using data constructed from *Who's Who in Economics*, Blaug and Vane (2003).

References

- Besley, Timothy and Ghatak, Maitreesh, 2008. Status Incentives. *American Economic Review*, 98 (2), 206-211.
- Blaug, Mark and Vane, Howard R. (Eds.), 2003. *Who's Who in Economics*, 4. Edward Elgar Publishing Ltd, Cheltenham, UK.
- Coupé, Tom, 2005, An analysis of the best paper prizes of economics journals, Working Paper, Université Libre de Bruxelles.
- Frey, Bruno S., 2005, Knight Fever. Towards an Economics of Awards, IEW Working Paper, Institute for Empirical Research in Economics, University of Zurich.
- Frey, Bruno S., 2006. Giving and Receiving Awards. *Perspectives on Psychological Science* 1, 377-388.
- Frey, Bruno S., 2007. Awards as Compensation. *European Management Review*, 4, 6-14.
- Frey, Bruno S. and Neckermann, Susanne, forthcoming. Awards: A View From Psychological Economics. *Journal of Psychology*.
- Gavrila, C., Caulkins, J. P., Feichtinger, G., Tragler, G. and Hartl, R. F., 2005. Managing the Reputation of an Award to Motivate Performance. *Mathematical Methods of Operations Research*, 61 1, 1-22.
- Ginsburgh, Victor A. and van Ours, Jan C., 2003. Expert Opinion and Compensation: Evidence from a Musical Competition. *American Economic Review*, 93(1), 289-296.
- Hansen, J. Lee and Weisbrod, Burton, 1972. Toward a General Theory of Awards, or, Do Economists Need a Hall of Fame? *The Journal of Political Economy*, 80(2), 422-431.
- House of Commons, Select Committee on Public Administration, 2004, A Matter of Honour: Reforming the Honours System. Fifth Report of Session 2003-04, vol. 1. Stationary Office, London.
- Malmendier, Ulrike and Tate, Geoffrey, 2005, Superstar CEOs, mimeo, University of Stanford, University of Pennsylvania.
- Markham, Steven E., Scott, K. Dow and McKee, Gail H., 2002. Recognizing Good Attendance: A Longitudinal, Quasi-Experimental Field Study. *Personnel Psychology*, 55(3), 639-660.
- Neal, Alison (Ed.), 2006. *The International Who's Who*. Routledge, London.
- Neckermann, Susanne and Frey, Bruno S., 2007, Awards as Incentives, IEW Working Paper, Institute For Empirical Research in Economics, University of Zurich, Switzerland.
- Neckermann, Susanne and Kosfeld, Michael, 2008, Working for nothing? - The Effect of Awards on Employee Performance Mimeo, University of Zurich, Switzerland.
- Phillips, Sir Hayden, 2004, Review of the honours system. Cabinet Office, London.
- Rablen, Matthew D. and Oswald, Andrew J., forthcoming. Mortality and Immortality: The Nobel Prize as an Experiment into the Effect of Status upon Longevity. *Journal of Health Economics*.
- Redelmeier, Donald A. and Singh, Sheldon M., 2001. Survival in Academy Award-Winning Actors and Actresses. *Annals of Internal Medicine*, 134(10), 955 - 962.

APPENDIX

Table A: Awards of Milton Friedman

Name	Year
1 Goldwater Award	1997
2 Robert Maynard Hutchins History Maker Award	1997
3 Source Award for Lifetime Achievement	1997
4 Templeton Honor Rolls, Lifetime Achievement Award	1997
5 Hon. PhD, Univ. Prague	1997
6 Institution of World Capitalism Prize	1993
7 National Medal of Science	1988
8 Presidential Medal of Freedom	1988
9 Grand Cordon of First Class Order of Sacred Treasure	1986
10 President WEA	1984
11 Hon. PhD, Jacksonville Univ.	1983
12 Vice-President WEA	1982
13 Hon. PhD, Gonzaga Univ.	1981
14 Hon. PhD, Hebrew Union Coll.	1981
15 Tuck Media Award Economic Understanding	1981
16 New Perspectives Award	1981
17 Ohio State Award	1981
18 Statesman of the Year Award	1981
19 Hon. PhD, Brigham Young Univ.	1980
20 Hon. PhD, Dartmouth Coll.	1980
21 George Washington Honor Medal	1980
22 Hon. PhD, Harvard Univ.	1979
23 Hon. PhD, Francisco Maroquin Univ.	1978
24 Gold Medal, National Institute of Social Sciences	1978
25 Private Enterprise Exemplar Medal	1978
26 Valley Forge Honor Certificate	1978
27 George Washington Honor Medal	1978
28 Scopus Award	1977
29 Hon. PhD, Hebrew Univ.	1977
30 Nobel Prize in Economics	1976
31 Hon. PhD, New Hampshire	1975

32	Hon. PhD, Roosevelt Univ.	1975
33	Educator of the Year	1973
34	Member NAS	1973
35	Vice-President Mont Pelerin Society	1972
36	Chicagoan of the Year	1972
37	Hon. PhD, Loyola Univ.	1971
38	Hon. PhD, Bethany Coll.	1971
39	Hon. PhD, Univ. Rochester	1971
40	President Mont Pelerin Soc.	1970
41	Hon. PhD, Lehigh Univ.	1969
42	Hon. PhD, Rockford Coll.	1969
43	Hon. PhD, Rutgers Univ.,	1968
44	President AEA	1967
45	Vice-President Mont Pelerin Soc.	1967
46	Hon. PhD, St. Pauls Univ.	1963
47	Hon. PhD, Kalamazoo Coll.	1963
48	Ford Faculty Research Fellow	1962
49	Fellow of the Center for Advanced Study in the Behavioral Sciences	1957
50	John Bates Clark Medal	1951

Source: *Who's Who in Economics* (Blaug and Vane, 2003).

Table B: Awards of Gary Stanley Becker

Name	Year
1 National Medal of Science Award	2000
2 Hon. Degree Univ. Aix-Marseilles	1999
3 Hon. Degree Hofstra Univ.	1997
4 Hon. Degree Warsaw School of Economics	1995
5 Hon. Degree University of Economics Prague	1995
6 Hon. Degree Univ. Miami	1995
7 Hon. Degree Univ. Rochester	1995
8 Hon. Degree Univ. Palermo	1993
9 Hon. Degree Columbia Univ.	1993
10 Nobel Prize in Economics	1992
11 Hon. Degree Princeton Univ.	1991
12 Hon. Degree State Univ. New York	1990
13 Hon. Degree Univ. Illinois at Chicago	1988
14 President ASA	1987
15 Hon. Degree Hebrew Univ.	1985
16 Hon. Degree Knox Coll.	1985
17 Member NAS	1975
18 Vice President ASA	1974
19 Fellow AAAS	1972
20 Professional Achievement Award	1968
21 John Bates Clark Medal	1967
22 Fellow Econometric Society	1967
23 Vice Pres. National Academy of Education	1965
24 Fellow ASA	1965
25 WS Woytinsky Award	1964
26 President Pontifical Academy of Sciences	

Source: *Who's Who in Economics* (Blaug and Vane, 2003).

Notes

1 There is a more general literature emerging on awards as incentives. See, for example, Besley and Ghatak (2008), Gavrilă et al. (2005), Malmendier and Tate (2005), Frey (2005), Frey (2006), Frey (2007), and Neckermann and Frey (2007), Frey and Neckermann (forthcoming), Markham et al. (2002), Neckermann and Kosfeld (2008).

2 The Francis A. Walker Award was abandoned in 1977 after the Nobel Prize in Economics made it superfluous.

3 See <http://www.aaea.org/fund/awards/aaea-award-info.cfm>, accessed August 29, 2008.

4 For a more complete list of best paper prizes in economics see <http://student.ulb.ac.be/~tcoupe/bestpa.html>, accessed January 29, 2008.

5 This work of reference has been edited by Mark Blaug and Howard R. Vane in various editions (1983, 1986, 1999, 2003) and provides an extensive and authoritative guide to economists, both past and present, who have made a substantial contribution to our discipline. Economists are selected for inclusion via the rank order for citation frequencies. The fourth and current issue of *Who's Who in Economics* contains the 1,168 most frequently cited economists in the years 1990–2000. It is therefore a considerable distinction to be included in this reference work as, according to the estimates of the editors, a mere 6% of the current number of approximately 20,000 economists alive and publishing are included. Of the 1,168 economists in the latest edition of the book, 743 provided details on their background and career.

6 The prevalence of recipients from the US is replicated when looking at the list of recipients of the Nobel Prize. Forty-one Nobel Prizes went to US citizens (67% of all Nobel Prizes up to date). The United Kingdom has had eight recipients (13%). Three winners have come from Norway (5%) and two from Sweden (3%). Seven countries have had one winner

(The Netherlands, the Soviet Union, France, Canada, Germany, and India). Daniel Kahneman and Robert Aumann, each have a dual US-Israel citizenship.

7 The averages need to be interpreted with caution, however, since they are based on as little as one observation in some countries.

8 Again, these figures are influenced by the fact that the universities listed at the top of this statistic are represented with a larger number of entries in the *Who's Who in Economics*. Hence, a larger number of people contribute to the overall number of awards of these universities.

9 Another benefit of receiving awards may be that they improve the health of the recipients. It has been calculated that, on average, actors who receive an *Oscar* live four years longer than actors who do not get one, see Redelmeier and Singh (2001). An analogous finding for Nobel Prize winners is reported in Rablen and Oswald (forthcoming).

10 Examples are Phillips (2004) and the House of Commons (2004) that give useful surveys of (part of) the orders in Britain, as well as some limited information about other countries according to present conditions.

CESifo Working Paper Series

for full list see www.cesifo-group.org/wp

(address: Poschingerstr. 5, 81679 Munich, Germany, office@cesifo.de)

- 2453 Bernd Theilen, Market Competition and Lower Tier Incentives, November 2008
- 2454 Ondřej Schneider, Voting in the European Union – Central Europe’s Lost Voice, November 2008
- 2455 Oliver Lorz and Gerald Willmann, Enlargement versus Deepening: The Trade-off Facing Economic Unions, November 2008
- 2456 Alfons J. Weichenrieder and Helen Windischbauer, Thin-Capitalization Rules and Company Responses, Experience from German Legislation, November 2008
- 2457 Andreas Knabe and Steffen Rätzel, Scarring or Scaring? The Psychological Impact of Past Unemployment and Future Unemployment Risk, November 2008
- 2458 John Whalley and Sean Walsh, Bringing the Copenhagen Global Climate Change Negotiations to Conclusion, November 2008
- 2459 Daniel Mejía, The War on Illegal Drugs in Producer and Consumer Countries: A Simple Analytical Framework, November 2008
- 2460 Carola Frydman, Learning from the Past: Trends in Executive Compensation over the Twentieth Century, November 2008
- 2461 Wolfgang Ochel, The Political Economy of Two-tier Reforms of Employment Protection in Europe, November 2008
- 2462 Peter Egger and Doina Maria Radulescu, The Influence of Labor Taxes on the Migration of Skilled Workers, November 2008
- 2463 Oliver Falck, Stephan Heblich and Stefan Kipar, The Extension of Clusters: Difference-in-Differences Evidence from the Bavarian State-Wide Cluster Policy, November 2008
- 2464 Lei Yang and Keith E. Maskus, Intellectual Property Rights, Technology Transfer and Exports in Developing Countries, November 2008
- 2465 Claudia M. Buch, The Great Risk Shift? Income Volatility in an International Perspective, November 2008
- 2466 Walter H. Fisher and Ben J. Heijdra, Growth and the Ageing Joneses, November 2008
- 2467 Louis Eeckhoudt, Harris Schlesinger and Ilia Tsetlin, Apportioning of Risks via Stochastic Dominance, November 2008
- 2468 Elin Halvorsen and Thor O. Thoresen, Parents’ Desire to Make Equal Inter Vivos Transfers, November 2008

- 2469 Anna Montén and Marcel Thum, Ageing Municipalities, Gerontocracy and Fiscal Competition, November 2008
- 2470 Volker Meier and Matthias Wrede, Reducing the Excess Burden of Subsidizing the Stork: Joint Taxation, Individual Taxation, and Family Splitting, November 2008
- 2471 Gunther Schnabl and Christina Ziegler, Exchange Rate Regime and Wage Determination in Central and Eastern Europe, November 2008
- 2472 Kjell Erik Lommerud and Odd Rune Straume, Employment Protection versus Flexicurity: On Technology Adoption in Unionised Firms, November 2008
- 2473 Lukas Menkhoff, High-Frequency Analysis of Foreign Exchange Interventions: What do we learn?, November 2008
- 2474 Steven Poelhekke and Frederick van der Ploeg, Growth, Foreign Direct Investment and Urban Concentrations: Unbundling Spatial Lags, November 2008
- 2475 Helge Berger and Volker Nitsch, Gotcha! A Profile of Smuggling in International Trade, November 2008
- 2476 Robert Dur and Joeri Sol, Social Interaction, Co-Worker Altruism, and Incentives, November 2008
- 2477 Gaëtan Nicodème, Corporate Income Tax and Economic Distortions, November 2008
- 2478 Martin Jacob, Rainer Niemann and Martin Weiss, The Rich Demystified – A Reply to Bach, Corneo, and Steiner (2008), November 2008
- 2479 Scott Alan Carson, Demographic, Residential, and Socioeconomic Effects on the Distribution of 19th Century African-American Stature, November 2008
- 2480 Burkhard Heer and Andreas Irmen, Population, Pensions, and Endogenous Economic Growth, November 2008
- 2481 Thomas Aronsson and Erkki Koskela, Optimal Redistributive Taxation and Provision of Public Input Goods in an Economy with Outsourcing and Unemployment, December 2008
- 2482 Stanley L. Winer, George Tridimas and Walter Hettich, Social Welfare and Coercion in Public Finance, December 2008
- 2483 Bruno S. Frey and Benno Torgler, Politicians: Be Killed or Survive, December 2008
- 2484 Thiess Buettner, Nadine Riedel and Marco Runkel, Strategic Consolidation under Formula Apportionment, December 2008
- 2485 Irani Arraiz, David M. Drukker, Harry H. Kelejian and Ingmar R. Prucha, A Spatial Cliff-Ord-type Model with Heteroskedastic Innovations: Small and Large Sample Results, December 2008

- 2486 Oliver Falck, Michael Fritsch and Stephan Heblch, The Apple doesn't Fall far from the Tree: Location of Start-Ups Relative to Incumbents, December 2008
- 2487 Cary Deck and Harris Schlesinger, Exploring Higher-Order Risk Effects, December 2008
- 2488 Michael Kaganovich and Volker Meier, Social Security Systems, Human Capital, and Growth in a Small Open Economy, December 2008
- 2489 Mikael Elinder, Henrik Jordahl and Panu Poutvaara, Selfish and Prospective: Theory and Evidence of Pocketbook Voting, December 2008
- 2490 Maarten Bosker and Harry Garretsen, Economic Geography and Economic Development in Sub-Saharan Africa, December 2008
- 2491 Urs Fischbacher and Simon Gächter, Social Preferences, Beliefs, and the Dynamics of Free Riding in Public Good Experiments, December 2008
- 2492 Michael Hoel, Bush Meets Hotelling: Effects of Improved Renewable Energy Technology on Greenhouse Gas Emissions, December 2008
- 2493 Christian Bruns and Oliver Himmler, It's the Media, Stupid – How Media Activity Shapes Public Spending, December 2008
- 2494 Andreas Knabe and Ronnie Schöb, Minimum Wages and their Alternatives: A Critical Assessment, December 2008
- 2495 Sascha O. Becker, Peter H. Egger, Maximilian von Ehrlich and Robert Fenge, Going NUTS: The Effect of EU Structural Funds on Regional Performance, December 2008
- 2496 Robert Dur, Gift Exchange in the Workplace: Money or Attention?, December 2008
- 2497 Scott Alan Carson, Nineteenth Century Black and White US Statures: The Primary Sources of Vitamin D and their Relationship with Height, December 2008
- 2498 Thomas Crossley and Mario Jametti, Pension Benefit Insurance and Pension Plan Portfolio Choice, December 2008
- 2499 Sebastian Hauptmeier, Ferdinand Mittermaier and Johannes Rincke Fiscal Competition over Taxes and Public Inputs: Theory and Evidence, December 2008
- 2500 Dirk Niepelt, Debt Maturity without Commitment, December 2008
- 2501 Andrew Clark, Andreas Knabe and Steffen Rätzel, Boon or Bane? Others' Unemployment, Well-being and Job Insecurity, December 2008
- 2502 Lukas Menkhoff, Rafael R. Rebitzky and Michael Schröder, Heterogeneity in Exchange Rate Expectations: Evidence on the Chartist-Fundamentalist Approach, December 2008

- 2503 Salvador Barrios, Harry Huizinga, Luc Laeven and Gaëtan Nicodème, International Taxation and Multinational Firm Location Decisions, December 2008
- 2504 Andreas Irmen, Cross-Country Income Differences and Technology Diffusion in a Competitive World, December 2008
- 2505 Wenan Fei, Claude Fluet and Harris Schlesinger, Uncertain Bequest Needs and Long-Term Insurance Contracts, December 2008
- 2506 Wido Geis, Silke Uebelmesser and Martin Werding, How do Migrants Choose their Destination Country? An Analysis of Institutional Determinants, December 2008
- 2507 Hiroyuki Kasahara and Katsumi Shimotsu, Sequential Estimation of Structural Models with a Fixed Point Constraint, December 2008
- 2508 Barbara Hofmann, Work Incentives? Ex Post Effects of Unemployment Insurance Sanctions – Evidence from West Germany, December 2008
- 2509 Louis Hotte and Stanley L. Winer, The Demands for Environmental Regulation and for Trade in the Presence of Private Mitigation, December 2008
- 2510 Konstantinos Angelopoulos, Jim Malley and Apostolis Philippopoulos, Welfare Implications of Public Education Spending Rules, December 2008
- 2511 Robert Orlowski and Regina T. Riphahn, The East German Wage Structure after Transition, December 2008
- 2512 Michel Beine, Frédéric Docquier and Maurice Schiff, International Migration, Transfers of Norms and Home Country Fertility, December 2008
- 2513 Dirk Schindler and Benjamin Weigert, Educational and Wage Risk: Social Insurance vs. Quality of Education, December 2008
- 2514 Bernd Hayo and Stefan Voigt, The Relevance of Judicial Procedure for Economic Growth, December 2008
- 2515 Bruno S. Frey and Susanne Neckermann, Awards in Economics – Towards a New Field of Inquiry, January 2009